EGYPT HUMAN DEVELOPMENT REPORT 2005

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Choosing our Future:
Towards a New Social Contract

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Preface

The Egypt Human Development Report 2005 is a bold attempt to project a vision for the Egypt of tomorrow, and to propose concrete ways and means by which this vision can be achieved. President Hosni Mubarak has already announced a 10 point program for the coming six years that is designed to modernize organizational structures, reform the judicial system, update laws, promote political participation, simplify procedures and implement new training programs, as well as reduce unemployment and regional disparities in basic public service provision and improve overall healthcare services, with health insurance for all socioeconomic groups.

The message of the EHDR 2005 is that Egypt can no longer afford a 'business as usual' approach to the many daunting challenges we face over the next few years. The report argues that the time is indeed right to review our options and to implement new measures to enhance human security, growth and development. A perception that a new 'social contract' is needed, which better articulates the concepts of citizen rights and citizen obligations is becoming increasingly evident. It assumes that reform is a shared task that will succeed only if all citizens take part in the process, and if the state empowers its citizens in an increasingly competitive and rapidly globalizing world.

This report is therefore in harmony with government plans for the future of Egypt, and builds on concepts and ideals that are currently and actively debated. As with previous national Human Development Reports, an in-depth analysis is conducted of national and disaggregated regional measures of welfare. While Human Development indicators at the national level have shown steady progress, the EHDR 2005 proposes means by which more is accomplished at the disaggregated and regional levels, especially in rural areas. The report also incorporates and frequently proposes to go beyond the achievement of the targets of the Millennium Development Goals.

International best practice shows that efficient social services and utilities are an entry point to raised living standards and social mobility, particularly for the poor, and that this, in turn, promotes higher levels of human development, greater labour productivity and increased economic growth. But the cost burden of a universal welfare regime in Egypt is fiscally unsustainable without private sector participation in investment, employment and exports, as well as in the provision of public services. Cost-saving through alliances with the private sector, decentralization of authority and fiscal responsibility, and incentives for increased political and social participation are suggested, so that citizens engage more actively in improving their own conditions.

The report's vision proposes a bottom-up set of policies, which, rather than privileging specific groups, targets those under-serviced segments of society that can also

be considered the nation’s underutilized pool of human talent and productivity. This is expected to improve the quality of life of the underprivileged, to reinvigorate and expand productive activities and to raise real incomes in a sustainable virtuous circle. It suggests that the demographic transition can be viewed as a window of opportunity if human capacity is raised, and if new employment opportunities are generated in a number of growth sectors, so that the highest proportion of the population is able to work and therefore pay — directly and indirectly — for quality isocial security and social services, including health and education.

All of these ambitious goals and targets address issues that are, today, at the forefront of the Government of Egypt's concerns for the future, and dovetail with the national effort to address the aspirations of the citizens of Egypt. While some proposals in the report break new ground, others confirm current policy trends and complement the state's development plans for Egypt. As such, the report is a commendable example of cooperation between government and independent members of Egypt's intelligentsia to bring civil society participation to bear on national progress.

Osman Mohamed Osman
Minister of Planning, and
Chairman of the Board,
Institute of National Planning

Foreword

'Reform' is a word that has become increasingly used in Egypt in the last year. Indeed a healthy debate is currently underway in the country on new policy directions needed to energize and boost the country's progress in the economic, social and political spheres.

Concurrently, significant economic and political reforms are taking place. Reforms are better conceived and implemented when they are inserted in a shared long term vision able to show the strategic path that the country should follow in order to maximize human development. Such a vision, however, should neither be a simple projection nor an idealistic outlook on the country's future, but should represent a realistic agenda for action.

This is what the Egypt Human Development Report 2005 has tried to do, following up on last year's report which proposed a comprehensive decentralization strategy. The independent team of authors, led by Professor Heba Handoussa, has managed to produce a rich and inspiring report, centered on the ambitious proposal of a new social contract for Egypt and based on convincing evidence and concrete analysis and costing. The report represents an invitation to reach a common and explicit understanding in Egyptian society about the nature and scope of the required reforms. It is biased in favor of the segments of the population and the regions which have benefited less from the country's past and present achievements but it takes into account the necessary advancement of all Egyptian society. Its many recommendations are aimed at enabling Egypt to reach the millennium development goals by 2015, not only in terms of national average but also in every region of the country.

As such, the report implicitly contains a national plan to achieve the MDGs, something that every country has agreed to prepare by 2006. The report indicates a feasible path of equity and growth, within a process of deepened democracy, thus constituting not only food for thought for policy makers and authentic reformers, but a call to make clear policy choices supported by wide popular consensus. It presents an image of what Egypt could be in the coming years and how to realize that vision, in contrast to pursuing a 'business as usual' option.

Therefore, our hope is that this Report will be seriously considered as a strategic framework for human development, able to enhance both people's capabilities and the state's capabilities in the quest to realize Egypt's full potential.

Antonio Vigilante
Resident Representative,
United Nations Development Programme

Preamble

Egyptians have been dreaming of a better future, a future where quality services are at the reach of all citizens and where every household is protected with the security of gainful employment, health insurance, old age pensions and a comfortable and affordable home. This is the future depicted by the 'vision' which is presented in the Egypt Human Development Report for 2005 (EHDR 2005) and whose authors believe can be accomplished as early as 2015, the target date for achieving the Millennium Development Goals (MDGs).

What is proposed is a complete departure from a 'business as usual scenario' to embark on a comprehensive assault on each and every problem facing Egyptian society, such as unemployment, extra-curricular private tuition, the perils of pollution and the difficulty of acquiring formal housing for the middle and low income classes.

What is new to the proposed EHDR 2005 formula? The first change is a radical departure from the standard conceptual framework where poverty reduction is equated with handouts, and instead, the adoption of a pro-poor growth paradigm as the key to unleashing the nation's economic potential. The second innovation is that democratization and participation at the decentralized level become a major tool for cultural transformation, such that citizens own, manage and respect utilities and services and are proud and willing to share collectively in the responsibility for their quality and sustainability. The third is that the state provides for the full protection of every citizen regardless of ability or occupation, including support towards social security contributions, full health insurance coverage, credit guarantees for micro-enterprise lending, and housing mortgage funds for lower and middle income families. Another element of the paradigm shift is the targeting of quality in every domain, with an incentive package for service delivery of the highest standard, in both public and private sector domains. The last thematic tool that permeates the vision is capacity building for quality service delivery with a significant portion of the extra budgetary resources allocated towards training of trainers in the civil service, education and private professions. The new information and communication technology is applied in all domains.

Who are the key stakeholders and what is their role in the EHDR 2005? Every group in society is an essential player for the formula to work. It is the lower end of the scale in living standards that is the new power base for rapid economic growth. More than three million micro and small enterprises in rural and urban Egypt are the heart of job creation at multiplied rates of productivity growth over the next decade. This new constituency gains from a well designed program of training, extension services and credit at the level of each cluster throughout Egypt. A second group that stands to gain is the productive segment of the civil service whose members should receive

the salaries and incentives they deserve and become the social models of best practice, good governance and integrity. The private sector – large and small – is provided with all the institutional and policy reforms it requires to become the engine of growth, export orientation and employment generation. Up to eight million jobs are created over ten years in the private sector via export-oriented manufacturing, tourism and transport, ICT, professional and other services, housing and construction. Additionally, one of the most significant structural changes in the labor force is in favor of rural employment in agricultural mechanization, non-agricultural SME activities and land reclamation.

The outcome of the integrated package of proposed projects, programs and policies is a doubling of real per capita income by 2015, and the fulfillment of all of MDGs. The most important outcome, however, is to set Egypt on the fast track for economic, social and political transformation while safeguarding Egypt's natural resources and ecological balance. The focus is especially on water resource management and sanitation such that the Nile River is forever protected as Egypt's life giving artery.

There have been previous efforts to design a long-term vision for Egypt, the richest and most detailed being the 'Misr 2020' project undertaken by the Third World Forum. The EHDR 2005 team would like to express its deepest gratitude to Dr. Ismail Sabry Abdalla, Dr. Ibrahim Saad El Din, to the 'Misr 2020' researchers and to project director Dr. Ibrahim El Issawy, for supporting our endeavor with all of the 15 published volumes and unpublished manuscripts as well as their many individual insights into the report's complex task of projecting key variables, analyzing feedback mechanisms, and preparing selected options and scenarios for debate and decision.

The EHDR 2005 is the fruit of one full year of intensive enquiry by 35 eminent scholars and experts into the various dimensions of reform needed in order to accomplish the 'best case scenario' that all Egyptians aspire to, and especially our young generation. Although this document does not claim to provide any definitive answer to all of the country's challenges, it does offer a fully integrated option to tackle present ills and reap the benefits of a feasible and generous new social contract.

Heba Handoussa
Lead Author & Director,
EHDR 2005

Acronyms

ARPA	: Advanced Research Projects Agency
ASEAN	: Association of South East Asian Nations
BC	: Best Case Scenario
BU	: Business as Usual Scenario
BEST	: Business Enterprise Support Tools
BRCs	: Business Resource Centers
CAPMAS	: Central Agency for Public Mobilization and Statistics
CBE	: Central Bank of Egypt
CIT	: Communications and Information Technology
ECGA	: Export Credit Guarantee Agency
EDB	: Export Development Bank
EEAA	: Egyptian Environmental Affairs Agency
EEHC	: Egyptian Electricity Holding Company
EGAS	: Egypt Gas Holding Company
EGPC	: Egyptian General Petroleum Corporation
EISI	: Egyptian Information Society Initiative
ERSAP	: Economic Reform and Structural Adjustment Program
ESDF	: Egyptian Swiss Development Fund
ERTU	: Egyptian Radio and Television Union
EWP	: Egyptian Water Partnership
FDI	: Foreign Direct Investment
GAEB	: General Authority for Educational Buildings
GATS	: General Agreement on Trade in Services
GDI	: Gender-Related Development Index
GDP	: Gross Domestic Product
GEM	: Gender Empowerment Measure
GIS	: Geographic Information System
GMO	: Genetically Modified Organisms
GNP	: Gross National Product
GOE	: Government of Egypt
GOPP	: General Organization for Physical Planning
HD	: Human Development
HDI	: Human Development Index/Indicators
HIO	: Health Insurance Organization
ICT	: Information and Communications Technology
IMP	: Industrial Modernization Program
ISPs	: Internet Service Providers
ITIDA	: Information Technology Industry Development Agency
ITU	: International Telecommunications Union
IWRM	: Integrated Water Resources Management

LAN	: Local Area Network
LDC	: Least Developed Country
LOLR	: Line of Least Resistance
MCIT	: Ministry of Communications and Information Technology
MDGs	: Millennium Development Goals
MEE	: Ministry for Electricity and Energy
MOE	: Ministry of Education
MOI	: Ministry of Investment
MISA	: Ministry of Insurance and Social Affairs
MMR	: Maternal Mortality Ratio
MOAD	: Ministry of Administrative Development
MOF	: Ministry of Finance
MOFTI	: Ministry of Foreign Trade and Industry
MOHP	: Ministry of Health and Population
MOEP	: Ministry of Energy and Petroleum
MOP	: Ministry of Planning
MSAD	: Ministry of State for Administrative Development
MSEA	: Ministry of State for Environmental Affairs
MWRI	: Ministry of Water Resources and Irrigation
NAFTA	: North American Free Trade Agreement
NCEEE	: National Center for Educational Evaluation and Examinations
NEAP	: National Environmental Action Plan
NREA	: New and Renewable Energy Authority
NRI	: Network Readiness Index
NTRA	: National Telecommunications Regulatory Authority
NUCA	: New Urban Community Authority
NWP	: National Water Plan
NWRC	: National Water Research Center
NWRP	: National Water Resources Plan
ODA	: Official Development Assistance
OEP	: Organization for Energy Planning
ORDEV	: Organization for the Development of the Egyptian Village
PAT	: Professional Academy for Teachers
PRAP	: Poverty Reduction Action Plan
PSB	: Public Service Broadcasting
SCA	: Supreme Council for Antiquities
SEDO	: Small Enterprises Development Organizations
SFD	: Social Fund for Development
SMEs	: Small and Medium Enterprises
SOE	: State Owned Enterprises
TC	: Training Center
TDC	: Technology Development Center
TFR	: Total Fertility Rate
UN-MP	: The UN Millennium Project
WFP	: World Food Programme

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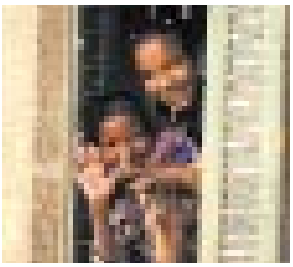
● CHAPTER ONE



A Vision for Egypt

This report presents a vision of Egypt that adopts a new paradigm whereby the disadvantaged are seen not just as recipients of international commitments such as the Millennium Development Goals (MDGs), or of aid from the state or from the donor community, but as the major participants in and beneficiaries of a new social contract between the Egyptian state and its citizens. Under this rearrangement of national welfare priorities, the less privileged half of the people are viewed as dynamic new entrants to the economic scene as producers and consumers, and to the political landscape as active stakeholders in shaping the future.

Egypt faces a time of choice

What is projected is to reinvigorate the legitimacy of the political regime by reforming the principles of entry and participation in national life. The report explores alternative scenarios that give numerical and time-bound targets to meet the basic requirements and aspirations of Egypt's less privileged for a better life. Best case scenarios that aim at achieving this vision are presented, and not only reflect the spirit of Egypt's constitution but propose a package of policies that reflect a revised understanding of the roles and responsibilities of the many actors that together constitute the reality that is Egypt today. This paradigm shift is indeed a challenge that requires a commitment to necessary change within present structures and priorities, and a reallocation of present budget resources.

The vehicle for achieving a new vision for Egypt is empowerment. The report argues that when the broad swathe of vulnerable and disenfranchised segments of society are enabled to exercise their development potential and are given access to the physical and intellectual assets necessary to take control of their own lives and future, the momentum for change builds upward from the grassroots to energize the process of growth with development across society. Egypt faces a time of choice. The challenge is feasible: to replace the dead weight of human and material privation by an opportunity for forceful and vigorous equity with growth.

The main concepts behind the vision for a new Egypt will be discussed at length in the ensuing chapters of this report, as well as the means proposed to achieve them. Chapter Two will tie progress to other successes in accomplishing and surpassing the Millennium Development Goals. The MDGs target the poor across the world. As such, their goals dovetail neatly with some of the goals visualized for Egypt as detailed in Chapter Two. But the EHDR 2005 aims at a more ambitious program, as developed throughout the report.

The framework of the social contract as described in Chapter Three has outlined ten principles that if fulfilled can deliver social citizenship rights to all, and that can be effective in promoting economic growth, reducing poverty and achieving social justice. This framework addresses the poverty-growth-distribution nexus and suggests a way to conceptualize public goods so that they have a significant impact on the equitable and effective distribution of assets and capabilities. It also highlights the results of a specially commissioned survey to gauge what it is that citizens require or demand (see Chapter Three).

Within this conceptual framework, the EHDR in Chapter Four proposes four specific deliverables that can make operational the principles and processes suggested by the framework of the new social contract. These are:

1. quality education for all;
2. health insurance for all;
3. a targeted social insurance program; and
4. an integrated package of income transfers and service access for families in extreme poverty.

Another deliverable is access to low income housing via an active and regulated housing and construction market including mortgage and credit as elaborated in Chapter Seven. Sanitation is also prioritized as a vital utility that protects health, irrigation water and underground aquifers as elaborated in Chapter Nine.

The vision develops a macro model to forecast economic growth in Egypt over ten years, using two main scenarios: business as usual (BU), and best case (BC) scenario. Other objectives include checking the feasibility and the consistency of the fiscal and budgetary implications, as well as help simulate the effects of various policy options on economic growth.

Employment projections are very promising (8 million jobs over 10 years) and identify six sectors that have great potential as engines of employment and economic growth. These include both the traditional and modern sectors, producing tradables and nontradables: the SME sector (especially in nonagricultural rural activity), exports of goods (labor and skill–intensive manufactures and agriculture), tourism, ICT and other service exports, as well as the housing and construction sector.

The vision pays special attention to the environment, land use and the provision of quality public utilities. It reviews options for the redeployment of population along the spatial dimension and raise issues of natural resource management, especially water and energy. The outcome of chapters Eight and Nine is to stress how compelling is the need for Egypt to provide 'proper' utilities and services, especially sanitation, both inside houses and in the outside infrastructure networks and treatment units.

The emphasis throughout the report is on promoting pro-poor initiatives. The strategy is to fully embrace the poor as well as those other social segments who are truly disadvantaged. The thesis is that the state has not reached those vast pockets of poverty across Egypt, the largest groups of whom are in agriculture and in informal occupations in the SME sector, and that by prioritizing those groups, the process of development can itself propel a growth trajectory to average 7.3% per year over the next decade.

1. The State of the Welfare Nation

In Egypt's constitution, the state is the guardian of equal opportunity for all in its welfare function, providing a range of public goods including free education, health benefits, and up until recently, employment opportunities. However, Egypt's welfare state has evolved over the years to favor some social groups over others. The welfare system, which for 50 years had made available the means for social mobility, can no longer afford to deliver quality to those salaried groups, notably public bureaucrats, most reliant on its services. Similarly, the vast segment of Egyptians who were at or below the poverty line — notably in the agricultural and informal sectors — have remained so. These citizens rely on the welfare system as a matter of survival, but increasingly because of deteriorating quality must turn to private suppliers of health and education services, or else forgo them.

In fact, the looming crisis in welfare delivery must be seen as an opportunity and a driving force for reform. Unlike previous emergencies where aid came to the rescue, along with piecemeal reform in fiscal or monetary policy, an overhaul of policies and priorities must be introduced. This includes significant structural change of a socioeconomic and political nature. Administrative relationships must reflect the voice of local communities to meet real local needs; social relations must promote capability empowerment, to develop individual talent, knowledge and creativity; and the economic engines of growth must favor rural areas via productive investments, adequate transport and communications infrastructure, and a reallocation of budgetary priorities.

▼ **The looming crisis in welfare delivery is an opportunity and a driving force for reform**

The national objectives for Egypt's development in the period 1997-2017 have been described in the document 'Egypt and the 21st Century' (Cabinet, ARE, 1997). The main elements of the policy are the central role of the private sector in Egypt's development, human resources development, and conservation of the environment. Further, economic growth aims at accelerating to reach 7.6% by 2017.

The dilemma is that a growing economy does not necessarily address crucial national development issues such as increasing poverty and relative deprivation. A symptom of the weak links between growth and development is the fact that while the economy has grown over the past ten years, progress in human development has been uneven, with the result that at the turn of the new millennium, Egypt still ranked a low 119 on the international HDI scale, developed as an alternative measure to GDP.

There are several existing strategies to combat the presence of income and capability poverty, yet these do not deal comprehensively with all of the causal factors. While they are very useful initiatives and likely to alleviate the burden of the poor in certain targeted areas, they are not sufficiently integrated in a unified plan to reorient the basic thrust of national policies towards equity and poverty reduction. The Cabinet, for example, has proposed targeted subsidies, formalization to turn the poor's assets into capital, fiscal and administrative decentralization, a glass of milk per day and the upgrade of ration cards. The Ministry of Planning (MOP) and UNDP have together developed the elements of a Poverty Reduction Action

Box 1.1: The eight messages of Egypt's vision

EHDR 2005 has chosen as its theme 'A Vision for Egypt', inspired by the growing aspirations and expectations of all Egyptians for accelerated reform. The vision is built on eight pillars:

I. Four directions of change

Comprehensive reform entails:

- a new 'social contract' whereby, in a paradigm shift, the state reduces its central control and promotes further political, social and economic participation from civil society;
- structural change of the economy whereby six motors drive and trigger sustained growth and employment generation;
- cultural and behavioral change through education such that the values of participation, entrepreneurship, innovation and transparency can prevail within an enabling environment;
- a radical move away from the pattern of intensive geographical concentration of population along a narrow strip and the redrawing of Egypt's map to save scarce agricultural land.

II. Reinvigorating the legitimacy of the welfare state

The proposed new 'social contract' reinforces the legitimacy of the welfare state through the provision of higher quality public goods and services that are better targeted in favour of equity and efficiency. There are five new deliverables that address the constitutional right of individuals to equal opportunity as well as capability poverty,

- quality education for all;
- universal health insurance;
- state contributions to social security for new and young SME employees to encourage formalization and job creation,
- an integrated package of income transfers and service access for families in extreme poverty;
- support for the rapid introduction of clean water and sanitation. All of these proposed EHDR 2005 deliverables dovetail with the pursuit of poverty reduction and achievement of the Millennium Development Goals, and address the social security of all lower income citizens.

III. Equity for growth with employment

The reallocation of budget resources to prioritize disadvantaged segments of the population has been calculated within a fiscal consistency framework, whereby targeted expenditure makes possible an accelerated rate of economic growth averaging 7.3% over the vision period. Six sectors leading the growth trajectory are in traditional and modern activities. Their employment implications are a significant reduction in unemployment:

- the SME sector, especially in non-agricultural rural activity;
- exports of labor and skill-intensive manufactures;
- non-traditional agro-industry and horticulture;
- tourism;
- ICT and related service exports;
- housing and construction.

IV. Boosting credit to augment investment and domestic savings

The vision foresees domestic savings that climb from a low of 20% GDP in the 'business as usual' scenario to an impressive and sustainable 'best case' of 30% GDP in 2015, driven by a large injection of medium and long-term finance. This is a major instrument that promotes the activation of the economy via SME credit, social insurance for SME workers, health insurance and housing mortgages for the poor. The result is a virtuous circle, where a major boost in finance triggers increased aggregate investment, incomes as well as a successful decline in fertility and population growth.

V. New roles for all stakeholders, actors and players

The responsibility of all citizens in the new social contract entails overcoming apathy by providing a democratic and decentralized environment where choices become possible; accountability and transparency of transactions can be instilled through clear legal frameworks and citizen charters; pride in work is an outcome of a job well recognized and rewarded through market-based salary scales and incentives; the realignment of job descriptions in the public domain to match real needs will require retraining of available staff rather than creating new jobs; NGOs and a growing private sector will encourage commitment to corporate social responsibility; and the partnership with the state is energized as these sectors are given new legal rights, under which to operate.

VI. Dynamism, innovation and entrepreneurship

Proposed reforms of the education and training systems, coupled with the spread of ICT and increased expenditure on research, are a necessary first step to overcome a widespread culture of mediocrity and conformity. Empowering the poor with information and technical knowledge through extension services will raise productivity in an estimated two thirds of Egypt's private sector economy and will allow for a successful economic take-off. The accent is on institutional reform to address:

- market and bureaucratic failure;
- identifying best practices, scaling up investments in designated programs;
- capitalizing on the surplus of young graduates, and retraining them as teachers and trainers, or in quality extension services;
- rewarding private entrepreneurship through public recognition (competitions and prizes) streamlined bureaucratic processes, tax holidays for small-scale activities, and reducing the cost of bankruptcy and failure.

VII. Civil service reform

A revival of the ethics and values that promote honesty and integrity can only come about if the causes of laxity and corruption are addressed. The civil service must be perceived as providing, once more, an honorable professional occupation with a respectable salary scale and incentives system that reflect its status and decency, that is merit-based, and that discourages dishonesty. The vision visualizes a downscaling of bureaucratic staff, together with a reorientation of underutilized skills towards productive activities. It will necessitate a revision of the present structure of promotion based on seniority, to become a system that rewards discipline and hard work; it will require investments in retraining through savings from retrenchment, the articulation of rules and procedures that have clarity of purpose as well as efficient and dedicated service impact, guaranteed by service 'charters' making clear to citizens the rights and service quality they can expect.

VIII. Conserving the environment for future generations

Under the best case scenario, there would be an urgent need to:

- develop and implement an integrated plan for national/regional strategies, and programs, by articulating these goals to the public, and by using measures to improve efficiency and reduce waste;
- employ the full range of policy instruments, including regulation, monitoring, voluntary measures, market and information-based tools, land-use management and cost recovery; without cost recovery objectives becoming a barrier to access by poor people;
- improve the efficient use of public goods and promote their allocation in a way that balances the requirement of preserving fragile environments, in line with human domestic, industrial and agriculture needs;
- promote the diffusion of capacity-building,via technical and financial support;
- create programs for energy-efficient, sustainable, cost-effective growth.

The Report thus provides detailed policy prescriptions ranging from trade liberalization and exchange rate policy to education, health and social security reforms. The policy instruments proposed are comprehensive, compatible and integrated. A list of 54 priority projects and programs are identified for implementation over the vision period, at an additional cost that peaks at LE 20 billion per year over the vision period. The budget expenditures are compatible with the best case scenario, contingent on introducing the entire package of reforms.

Source: H. Handoussa, Background Paper, EHDR 2005

Plan (PRAP), several components of which are incorporated in this report's vision for development. International agencies such as the World Bank have also put forward strategies that focus on increasing current income through growth achieved by macroeconomic policies, upgrading the educational system, and social safety nets.

The Egypt Human Development Report 2005 (EHDR 2005) uses these piecemeal initiatives as part of a more comprehensive vision so as to exploit the synergies available in an integrated approach to reform of the welfare system. The report also deems that it is vital to develop policies, programs and initiatives within a medium-term vision for the reforms that Egypt strives to achieve over the coming decade.

2. Conceptualizing the Paradigm Shift

The EHDR paradigm shift addresses poverty without putting the breaks on growth. In fact, it proposes a number of growth engines that directly empower the poor as owners of projects and assets that will encourage upward and downward linkages in the national economy. The proposal is for a welfare regime focused on the provision of quality public goods to the poor — without penalizing other groups who benefit from a reliable system of utilities, infrastructure, security and justice. Social public goods are the services and deliverables by which the state distributes assets such as health, education, social protection and citizenship rights. In other words they deliver 'capabilities' to citizens and their absence or shortfall leads to capability or human poverty.

If one third of Egyptians are poor by this measure then public goods are missing a third of their target population. The fair distribution of these goods can also ameliorate subjective poverty by insuring that opportunities are equitably distributed across the whole population regardless of class or location (refer to Chapter Three).

An essential ingredient to success is political empowerment. This means that in practical terms, citizens are given the rights of citizenship, that is, the tools by which they can fulfill their responsibilities in the new bargain between state and civil society. While the state limits its role to providing an enabling administrative environment for rapid development, citizens will require freedom of expression and association and access to information including a free press. A politically active civil society will also make government more responsive. This requires political parties that are representative and reach out to remote and deprived areas and groups and, in the legislature, are able to meticulously fulfill their law-making function.

It is clear from the groundswell of enthusiasm over Egypt's national elections that the desire for change is strong. This is manifest on Egypt's street, and in vocal demands for those political and administrative mechanisms that will ensure democracy through a devolution of power and decentralization. The challenge is not only feasible — it has become necessary for growth and for stability. In other words, what is required is no less than a new social contract.

Egypt's political and administrative elite will provide the leadership, the direction and the means to accomplish an equitable system that meets the aspirations of its citizens. Society at large will acknowledge that as well as rights, it also has responsibilities and obligations to work in tandem with the state.

3. A Tailor-made Strategy to Achieve the Vision

The EHDR vision proposal contains all elements of Egypt's Millennium Development Goals as well as elements of a Poverty Reduction Action Plan, plus an economic growth strategy that promises real jobs and higher incomes.

▼ **An essential ingredient to success is political empowerment**

The Challenge of the MDGs

According to the 2000 Millennium Development Declaration, Egypt agreed to halve income poverty and hunger; achieve universal primary education; promote gender equality; reduce under-five mortality by two-thirds; cut maternal mortality by three-quarters; combat HIV/AIDS, malaria and tuberculosis; ensure environmental sustainability; and build a global partnership.

Box 1.2 Citizens' Charters and good local governance

A development in public administration reform that has altered the public service provider and user relationship is the use of Citizen's Charters. These Charters are believed to impact the culture of service agency providers by shifting their focus from administrative convenience to putting service users first. They promote good governance by upholding the values of transparency and accountability.

In simple terms, Citizen's Charters clearly spell out the level and quality of services that service users can expect. In some cases, they allow for consultation with citizens and enable them to act on information by making rational decisions on whether to support such services or to demand change. They are based on the idea that greater transparency and consultation will promote greater accountability of public service providers to users.

Citizen's Charters vary across countries. At one end of the spectrum, they give more emphasis on choice, consultation, measuring performance and redress mechanisms. At the other end, they are merely a means through which information is channeled about mandates of concerned agencies and the list of services they provide, as well as information about fees and service charges. There is also a difference between the Anglo-American approach which regards quality standards in public services as a target to be achieved, and the legalistic approach where quality standards are considered a legal right of service users

One of the earliest experience in Citizen's Charters is that of Britain. Charters there clearly delineate the rights of service users, as well as redress mechanisms if services do no meet certain quality standards. A Charter Mark Award is applied where best performance is rewarded. The USA adopted a bottom-up approach to Citizen's Charters where the public agencies assumed responsibility of surveying their customers about the quality of services they received. Based on survey results, service quality standards were developed and published against which agencies performance would be measured. Quality rewards were also used to reward quality performance.

In practice it might be difficult to assess the impact of Citizen's Charters on accountability. However, there is a widespread conviction that such reforms do lead to better services and offer better prospects for accountability and transparency.

Source: Based on Heba Abou Shnief, Box 1.1, EHDR 2004

▼ **Egypt is well equipped with human resources to make the last decade of the MDGs a resounding success**

Literacy rates for males (15-24) improved by about 12 percentage points between 1996 and 2001, while that of females in this age group improved by about 25.1 percentage points. This is due to the great efforts exerted for promoting gender equality in the field of education.

Improvements in life expectancy are influenced by child and infant mortality rates, and maternal mortality rates. These improvements are reflected in a substantial increase in life expectancy from 47.5 in 1960-65 to 68.0 in 2000-03.

With regards to the status of water and sanitation on the governorate level, the proportion of households with sustainable access to an improved water source has increased over the years 1986, 1996 and 2004 for all governorates. As of 2001, the best governorates were Port Said, Suez, Damietta, Kafr El-Sheikh, Giza, Fayoum, and Aswan at 100%. The worst were Menia at 60.7% and Suhag at 71.9%. The 2015 projection shows that most Egyptian governorates will reach full access to improved water sources (100%), with the exception of Cairo, Kalyoubia, Menoufia, Beni-Suef, Menia and Frontier governorates.

The proportion of urban people with access to improved sanitation has increased over the period 1995, 1999 and 2004, in all the governorates. As of 2001 the best governorates were Port-Said, Suez, Damietta, Dakahlia, Kalyoubia, and Ismailia at 100%. The worst were Suhag (92.4%), and South Sinai (92.5%). The 2015 projection for all governorates is 100%. The EHDR 2005 however suggests that 'improved sanitation' in Egypt's context will require a more complete definition of what is 'improved' and a downward estimate of the current indicators of access to sanitation.

The MDGs platform has gained national commitment given the political and moral grounds of poverty eradication.

The vision's social targets

In addition to the MDG targets, the vision foresees a creative departure from the business as usual scenarios in managing Egypt's economy, natural resources and politics. Egypt is relatively well equipped with human resources to make the last decade of the MDGs a resounding success, especially with respect to fulfilling the targets under education, health and gender. It also boasts the scientific and technological capacities to address the various technical issues such as the selection of appropriate technologies for water and sanitation.

Box 1.3: A perspective on political and civil freedom

Citizens are entitled to the freedom of using social frameworks through which to manage their interests and express opinions and beliefs. Legislation that puts constraints on public freedom such as the right to assemble, create political parties, and protect 'ethics' are not conducive to freedom. Also legislative provision, or any de facto traditions that limit women's freedoms should be invalidated. Election laws should provide real guarantees on the fairness of the election process. Laws on labor and professional syndicates should be cleared from governmental interference, and restrictions placed on any governing party from controlling the state's institutions, popular and non-government organizations.

Popular participation comes from providing people with opportunities to contribute in making decisions that affect their lives. This implies a transformation to a decentralized system, and to a domestic democratic rule based on the principle of elections, from the top to the base of the system. It would include the election of governors. Education plays a great role in preparing individuals for participatory democracy, the mass media plays a great part in motivating people to participate, by demonstrating individual creativity and diverse visions, ideological and religious tolerance, open-mindedness, and serious critical debate.

Reviving citizenship concepts and renovating the relationship between the citizen and the state could be helped by:

1. drafting a citizenship document that defines citizen's political rights, and which represents a motivation and awareness tool by which the citizen can know and hold fast to his rights and intent to practice them;
2. appropriate legislation and administration of justice, in addition to fast execution of judgments;
3. renovation of the relationship structure between citizen and the state, in the framework of administrative and organizational reform of the state's institutions to entitle him/her to question officials, participate in public hearings, and so forth.

Source: Ismail Sabry Abdallah, Extract from 'The Egypt We Want' (2000)

▼

The beneficiaries of the vision are not only the poor, but the entire next generation of Egyptians

As to the actual reforms needed for implementation, these will require serious political and cultural commitment. The general public should be informed that there are enormous economic and social returns in investing now on behalf of Egypt's future generations. The financing of the vision is not without sacrifices from those segments of society that have been accustomed to being favored. Among the losers are those who have felt that jobs in government are an entitlement. Another example of winners and losers is the proposed prioritization of clean mass transport over gasoline subsidies or private motorists. But reform is not a zero-sum game since its outcome is a process of accelerated growth which benefits all. The beneficiaries of the proposed ten year vision are not only the poor, but the entire next generation of Egyptians. The sacrifice is thus also in the short-term in order to achieve sustainability in the long-term.

What this report seeks to show is that there are three types of impediments that have in the past retarded or could retard in the course of the decade the achievements of some elements of the vision. The first obstacle would be a shortage of financial resources which could be resolved in the process of budget prioritization; the second is inadequate capacity of a technical nature to identify best practices; the third is the lack of ownership and participation for implementing at the local level. However, political will is now gathering to address these constraints.

What we are betting on

The strategy is fivefold:

1. *achieving the MDGs education targets plus eradication of illiteracy*. Although 'Education for all' was the project of the 1990s, it needs to be reinvigorated to ensure that the target achievement is on track.
2. *accelerate the decline in fertility*. The difference between the rapid and the slow population growth scenarios over the decade is as many as six million young children who will need schooling and health care and will subsequently need employment, housing and related infrastructure. The focus is on rural households and health units. The target is to reduce or even eliminate the differential level in contraceptive use across urban and rural areas (see Figure 1.3).
3. *employment creation* by investing in three major areas of private sector activity: export oriented manufacturing, SMEs in the traditional goods and tradable services (urban and rural), formal high-tech services including information, finance, transport, tourism and personal services (see Figure 1.4).

4. *redraw the map of Egypt* so as to transfer the poles of development, urbanization, agriculture, industry and tourism to the periphery of rural Egypt, especially in Upper Egypt to save the old agricultural land and arrest rural-urban migration. The GOE 10 point program incorporates such programs.
5. *safe drinking water and sanitation*, which are vital to avoid renal failure and water-borne disease lie at the heart of hygienic practices. Failure to deal with these issues at the required scale will have brutal consequences on health in the short run and fatal repercussions on Egypt's underground aquifer in the long run. In this report, appropriate sanitation options have been intensively analyzed for cost effectiveness in various settings of population density and proximity to water and sanitation networks. Decentralization at the local level will ensure the selection of appropriate lower-cost options and adequate cooperation from the citizens for good maintenance and sufficient local contributions towards cost-recovery.

As proposed in the 2004 EHDR, the ideal setting for infrastructure and utilities provision is a decentralized one. There is now broad consensus that the principle of subsidiarity brings the best results in cost recovery, quality and cost effectiveness of services such that implementation and monitoring take place at the most local of possible levels with appropriate capacity building.

▼ Implementing the elements and deliverables of the new social contract requires a healthy and rapidly growing economy

The means to successfully accomplish the proposed deliverables of the vision are in place for more than 70% of the MDG goals and targets. Additional elements incorporated in the proposed new social contract include a rough estimate of the budgetary cost. The means to implement these additional goals can rapidly be developed within a year, with technical and fiscal detail. Consensus at the national level will be followed by action at the community level with the mobilization of households, schools, businesses, and other institutions that have a vested interest in improving their welfare standards.The high probability of success is partly because of the enormous moral impetus which the vision proposes as well as the best opportunity for employment growth. All proposed actions can be viewed as the means to improve the livelihoods of those who are deprived while also creating more jobs for those local communities that are targeted.

The merits of addressing the health, education, environment, sanitation, and housing issues as an integrated package is that it can considerably reduce the financial burden of independent cost items of each budget entry and, more important, will reinforce the sense of pride for collective community action based on community assessment of options, community participation in the process of prioritization, and in community decisions on cost sharing and maintenance.

4. Growth, Employment and Fiscal Consistency

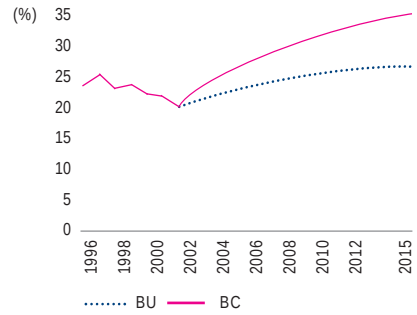
Growth and macroeconomic balance

Implementing the elements and deliverables of the new social contract requires a healthy and rapidly growing economy. The vision's key players – households, workers and business- will best respond to the credibility of the new contract and the security it provides if opportunities are fast created for decent jobs in the private sector. Once incomes grow above the poverty threshold, both aggregate consumption and domestic savings will become important drivers for an endogenous increase in investment and GDP growth (see macro scenario in Chapter Five).

Under the BC scenario, economic activity is driven by an acceleration in the growth rates of several sectors that act as engines of growth, such as the vast SME traditional sector as well as modern goods and services. Tradables include manufactured and agricultural exports, tourism and ICT and other service exports, while non-tradables are concentrated in the construction, housing, trade and transport sectors.

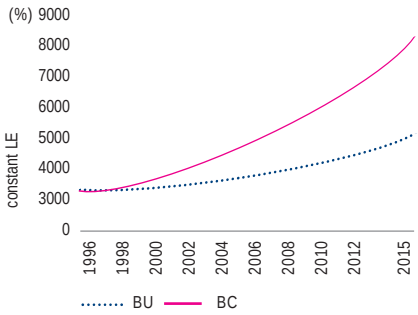
The growth rate of GDP reaches an annual average 7.3% over the vision period. Investment as a ratio of GDP is responsible for growth, rising from 22% in 2005 to 34% in 2015, while annual total factor productivity growth averages 2% over the vision period, compared to 0.6% in the business as usual (BU) trend scenario (Figure 1.1 and Chapter Five).

Figure 1.1: Investment as ratio of GDP



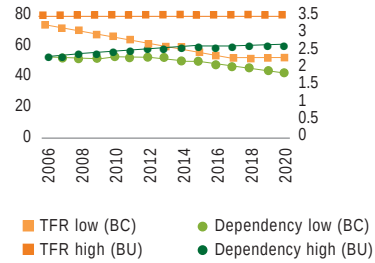
Source: Projections from A.Kamaly. Background Paper for EHDR 2005

Figure 1.2: Output trend per capita



Source: Projections from A.Kamaly. Background Paper for EHDR 2005

Figure 1.3: Fertility and dependency under two scenarios



Note: TFR= Total Fertility Rate
Source: Estimates from M. Osman, Background Paper for EHDR 2005

In real terms, per capita income (output) doubles over the BC trajectory as contrasted with the BU trend line over the decade (Figure 1.2). Several variables are ultimately responsible for the divergence between the BC and BU outcomes: sectoral investment,output and employment growth rates, productivity growth for both labor (via education and training) and capital (technological upgrading) as well as the more rapid decline in fertility and population growth under the BC scenario.

Accelerating fertility decline

Total fertility rates (TFR) of women aged 15-49 are also declining, from 5.5 children/female in 1975-76 to 3.5 in 1997-2000, and although rates are still higher in rural areas, the gap between urban and rural TFR has shrunk over the last 20 years.

However, the rate of decline has slowed down and needs increased efforts to resume rapid decline. Preliminary results of the Demographic and Health Survey 2005 indicate that fertility declined from 3.2 in 1998-99 to 3.1 in 2000 and has since plateaud at that level for five years.

The changing demographics will affect the future age structure of the population. Two different scenarios have been forecast: one with a continued high rate of population growth, Business as Usual (BU), with TFR constant at 3.2 children/female during the period 2003-22; and a second Best Case (BC) scenario where the TFR rate falls to 2.1 children/female by 2017. (The rate of 2.1 children/female by 2017 is, currently, considered a political target).

According to the BU scenario, there would be 2.4 million births in 2025, as opposed to 1.6 million under BC assumptions. Thus Egypt's population will range from 83.8 million (BC) to 87.5 million (BU) in 2015, a difference of as much as 3.7 million. By 2020 this gap will have increased further to some 7.3 million or 88.9 million (BC) versus 96.2 million (under BU).

▼

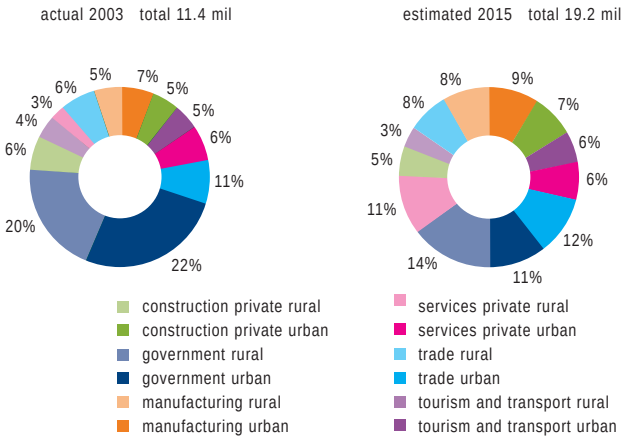
According to the BU scenario, there would be 2.4 million births in 2025, as opposed to 1.6 million under BC assumptions

The difference between the two forecasts will primarily be felt in terms of the number of children in primary education. In recent years children under 15 have made up a smaller proportion of the population (41% in 1990 as opposed to 32% in 2005), a trend that would continue under the BC scenario to 29.4% by 2015 and the absolute number of children in primary education will fall from 10.2 to 9.7 million by 2020. However under BU assumptions the figure would actually increase from 11.1 million to 12.3 million children. Put another way, there would be an extra 900 thousand children in primary education in 2015, growing to 2.5 million extra by 2020.

Employment creation over the vision period

The results of the forecasting exercise with respect to employment are very favorable. What is envisaged is a complete structural change of the economy which is reflected in the demand for labor across urban/rural and across sectors of economic activity. The fastest growing activities are all of the six private sector-driven engines of growth, as detailed in Chapter Six and Seven. Even though agriculture will witness a significant reduction in its share of total employment in 2015, what is shown in the analysis is that dramatic structural change is

Figure 1.4: The changing structure of employment outside of agriculture*



* pie charts exclude from total employment the agricultural sector and SOEs
Source: H. Handoussa, Background Paper, EHDR 2005

also expected within agriculture- the sector where the poorest segment of society lives. A rapid introduction of mechanization is — even if labor-saving — intended to raise labor productivity, real wages and incomes in the countryside. Moreover, land reclamation is responsible for the creation of 1.45 million jobs in agriculture, a process which will compensate for jobs lost to mechanization in the old lands.

Egypt must mobilize to stop degradation of natural resources

Figure 1.4 shows significant structural change in employment from 2003 to 2015, outside of agriculture. In contrast to the low rate of growth of 2% in the agricultural sector, the growth in private rural and urban activity exceeds the growth rate of Egypt's labor force which is projected at an annual 3% over the vision period 2005-15. The level of unemployment drops from 11% in 2003 to less than 6.0% in 2015.

The reason why unemployment does not decline further is the gradual civil service adjustment whereby a large reduction in government employment of 1 million is implemented over the decade. This is achieved through the process of attrition, with new recruitment assumed to decline to an annual average of 75 thousand per year in government. The excess number of government employees in urban areas is estimated at 394,370 in 2003. New government jobs for rural areas over the period 2003 to 2015 are 549,009. This is part and parcel of the new pro-poor strategy.

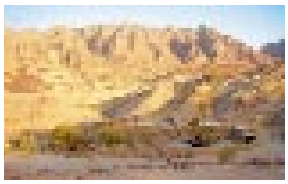
The share of government in total employment outside agriculture declines dramatically from 43% to 24%. The distribution of government employment itself also changes in favor of the rural sector (an increase in rural of 14% versus a decline of 23% in urban Egypt over ten years). The bulk of employment generation is in the private non-agricultural sector. In absolute terms, private activity outside agriculture is responsible for an impressive 8 million jobs over the ten years period. Out of the increase 4 million will be in rural areas and 4 million in urban areas. Another 600 thousand jobs are estimated to be generated for women via the NGO sector in relation to the proposed additional budget (Annex 1.1). Migration is also responsible for about 350 thousand jobs over the next decade.

Claiming Egypt's renewed ecological balance

Ensuring the sustainability of efforts deployed for the realization of the EHDR 2005 vision for Egypt depends on finding solutions to important and long-standing problems related to the sustainability of natural resources and the ecosystem balance for the country. The importance of these problems lies in the fact that they are progressively eroding the country's natural carrying capacity and if left unheeded they can seriously compromise the achievement of Egypt's ambitious development goals. Significant efforts have been deployed by the authorities, by the private sector as well as by civil society — in particular over the past decade — to put a stop to the degradation of the country's natural resources and to mitigate the damage. The task is daunting and all resources and partners need to mobilize every possible support for tipping the balance in favor of positive outcomes.

The sectors and domains treated in Chapters Eight and Nine cover improved management of natural resources, pollution control, with focus on sanitation and solid waste management; with its recently formulated integrated water resource management plan; and most importantly, a review and discussion of the options for the long-standing recognized need for the people of Egypt to break out of the confines of the narrow and densely inhabited Nile Valley and its delta.

Box 1.4: Linking biodiversity conservation to community development in the St. Catherine Protectorate



Cultural diversity and the conservation of biological diversity are interconnected. Biodiversity can be preserved only through a broader effort to promote and sustain human welfare. This basic principle underlies the creation in 1996 of the St. Catherine Protectorate in South Sinai and its development with financial support from the European Union.

Around seven thousand local Bedouins live in or around the St. Catherine Protectorate, many in scattered remote settlements that are largely inaccessible to service providers. These communities are marginalized, and out of touch with mainstream economic development opportunities, consequently suffering from poverty and a relatively high rate of malnutrition among children. On the other hand, they possess a deep knowledge of the region they inhabit, and their women exhibit high skills in handicrafts, much of which had remained under-exploited.

The Protectorate initiative launched a sustainable multifaceted program to support and uplift these communities. Local people constitute over 70% of the Protectorate's staff. The Protectorate recruited Bedouins, selected by their own communities, as community guards, drivers, office and casual workers and artisans to build the Protectorate's infrastructure such as the Visitor's Center. Income generating activities include a model community owned and managed eco-lodge — Al Karm — benefiting 24 Bedouin families, and, with the support of the Protectorate, a privately owned women's handcraft business, *FanSina*, involving over 300 women. Rural infrastructure has been upgraded with access tracks improved, wells and 5 runoff dams built, all using local labor.

Major interventions have also centered on primary health care provision, veterinary support, selective employment and the introduction of sustainable income generation activities. Over 40 settlements are now serviced, local community health workers have been trained and more than 400 children under 5 have had their health monitored. Ground water supplies are regularly tested for drinking quality and domestic animals are treated on demand.

These combined efforts have helped increase household incomes, increased local job opportunities, improved maternal and child health and created trust between the Protectorate and the local people, along with a strong mutual interest to protect the environment and its natural and cultural resource bases.

Source: Randa Fouad, Development Communication Advisor for the Minister of the Environment, 2005

Options for expansion into the surrounding desert, for the creation of a new capital or of new and economically viable poles, as well as initiatives already undertaken, are all reviewed and discussed within proposals for a vision of spatial development over the long-term.

Arguments in favor and against the proposed strategic approaches are presented following an analysis of the challenges and problems identified for each of the domains under review. The consensus is that arresting unplanned urbanization and encroachment on scarce agricultural land is a first order priority and that equally important is to make choices from among alternative options based on the most serious analysis of the many attached costs and benefits to each option. New policy directions are proposed and legal and managerial frameworks are discussed, along with types of interventions needed, including institutional, human, technical and other resources. The required information and research support and a host of other prerequisites are discussed in their relation to sustaining and guaranteeing optimal returns on the important investments made for realization of the vision.

Predicting and substantiating what can happen if the status quo continues and no action is taken makes up the business as usual (BU) scenario. Coordinated action is therefore needed on all fronts. A key message invites decision makers and planners to integrate environmental policies within economic policies under a national sustainable development policy that guarantees that environmental considerations are taken into account early in the planning process.

Laws and regulations alone cannot resolve the challenge that environment and development issues pose, nor can the injection of additional external development funds. The vision for Egypt recommends an innovative mix of policies, strategies and interventions that can induce change and support sustainable development.

The energy sector is an integral part of Egypt's long-term vision and is regarded as critical to development, not only to satisfy development needs but also as a source of income that generates an important share of Egypt's foreign currency. The sustainability of energy sources whether from natural reserves or from exploitation of alternate or renewable sources is key to

▼ **Arresting unplanned urbanization and encroachment on scarce agricultural land is a first order priority**

Table 1.1 Additional budget for EHDR vision/MDG programs sorted by type of funding, 2005 to 2015

	Grants for poverty and employment		Long-term loanable funds		Capacity building for service delivery		Human resource development		Total LE bil
	Program	Cost LE bil	Program	Cost LE bil	Program	Cost LE bil	Program	Cost LE bil	
Poverty	1.1, 1.2, 1.3, 1.4	30.4							30.4
Basic education			2.22, 2.24	0.64	(2.7-2.9) + (2.14-2.21) + 2.23	7.20	(2.1-2.6) + 2.8 + (2.10-2.12)	16.4	24.2
Health							3.1, 3.2	23.8	23.8
Social security	4.1	8.7							8.7
Small and medium enterprises			5.1, 5.2, 5.6	0.96	5.3, 5.4, 5.5	0.16			1.12
Agriculture			6.1, 6.2, 6.3	5.2					5.2
Sanitation and water	7.1	8.0	7.1, 7.8, 7.10	20.1	(7.2-7.7) + 7.9	1.40			29.5
Housing and area development			(8.1-8.5)	58.8					58.8
The vision and strategy unit					9.1	0.06			0.06
Subtotal by type of funding		47.1		85.7		8.80		40.2	181.0

Source: Various programs prepared for EHDR (2005) as well as selected programs from the Poverty Reduction Action Plan, a joint UNDP/MOP/ERF initiative. See Annex 1.1, Table 1.2

the realization of the country's socio-economic development program.

Increasing the use of natural gas would reduce pollution significantly

Egypt's energy resources are identified and estimates for the duration of reserves are given, being around 20 years for oil reserves and 70 years for natural gas reserves. The potential for energy production from alternate and/or renewable sources is reviewed. This section also discusses the balance between production, expected needs and consumption rates and its influence on the direction and substance of government policy on privatization, subsidies, the diversification of energy sources and on plans for exploitation of alternate sources of energy to provide the elements for a vision for the future.

Budget estimate for the new social contract

Implementing the new social contract will involve additional budget resources as well as some reallocation of existing budget lines within the functional classification of the budget. According to the best case scenario (BC), budget revenues will increase so as to cover the required additional expenditure over the vision period. Budget balance is restored within the next few years, as a result of accelerated GDP growth. The proposed additional projects and programs are not all government commitments, although developed in consultation with relevant line ministries. They will have to be discussed and prioritized in line with President Mubarak's Ten Point Plan. The finances required over the next ten years amount to LE 181.8 billion at constant prices and can hopefully be secured as early and as evenly as possible over the period.

As clear from the classification in Table 1.1, more than half of the cost of the 54 proposed programs consists of loanable funds to provide credit for housing purchases, SME borrowers, sanitation and water. In order for the proposed programs mentioned in Table 1.1, Table 1.2 and and Annex 1.1 (programs from 1.1 to 8.5) to be implemented correctly, a program has to be entered (program number 9.1) to address and cost the capacity to formulate in details, implement and monitor these programs.

Table 1.1 also indicates that a large part of the outright grants (total LE 47.1 billion) are dedicated to direct poverty reduction (LE 30.4 billion) with the balance allocated to the proposed contribution of the government to social security (LE 8.7 billion) to encourage SME employers to hire youth below the age of 30 years and to sanitation (LE 8.1 billion). The bulk of capacity building and human resource development expenditure is dedicated to education and training. All figures have been calculated based on available information and coefficients collected by the authors and are the best approximations to date.

The details and source for each proposed program is clearly identified in Annex 1.1 together with the basis of calculation of cost for which further details and justification can be found in

relevant chapters. The programs are classified by target and the utmost care has been given to ensuring no duplication across sectors and beneficiaries. Except for Poverty Reduction programs, the majority of the proposed elements under each target are derived from the EHDR 2005 calculations of the authors. As to the proposed programs of the Poverty Reduction Action Plan (PRAP), the most viable, pressing and complementary actions to the vision were chosen.

The package of proposed programs have been chosen from among a much broader number and can therefore be considered as the priority selection that would satisfy the objectives of the vision. Some are clearly in line with meeting MDG targets, and all have been tailor-made to suit the Egypt context and circumstances.

5. Vision Best Practices at the Governorate Level

Over the past few years, a number of innovative approaches were adopted in several governorates following the adoption of the law on administrative decentralization and in response to the policy directives to line ministries in favor of devolution of power to the local level.

With the backing of the political leadership, highly motivated governors went ahead with strategies and initiatives for accelerating the development of their respective governorates. The differences in the profile of the governorates and available local resources meant that no single development model or the means to realize it is applicable to all. For example, while public private partnerships ranked high as a strategy in the development agenda for Alexandria governorate, the creation of a governorate-level international cooperation bureau to expedite the formalities required for processing external funds to finance ambitious development plan was important to Menia.

In EHDR 2004, an entire chapter was devoted to the analysis of various mechanisms used in four Egyptian local communities to mobilize stakeholders and identify, prioritize and respond to their needs within a participatory, bottom-up framework. The one common policy requirement for success was shown to be decentralization in its entire scope to include local autonomy at the participatory, administrative and fiscal levels. The experience showed that bottom-up approaches that capitalize on local government initiative and citizens' involvement bring about the most positive and lasting results.

Qena: A strategy of partnership

This year, the EHDR 2005 team chose to feature Qena Governorate as a best practice because of the evidence of rapid improvements from a very low level of development and because of the detailed documentation available of the Qena experiment for replication in other governorates.

In 1999, the governorate of Qena displayed all of the features of extreme poverty: agricultural land fragmentation with 71% of landowners owning less than one feddan, a dilapidated infrastructure, more than 50% of the adult population illiterate and above average mortality rates. The governorate has also lost a key source of revenue when the city of Luxor was separated from it, and in spite of its many cultural sites, the entire governorate had only one run-down hotel.

In the space of only five years, Qena Governorate has been transformed within the framework of a well-designed, long-term vision and strategy targeting quality public services for all, and prioritizing vulnerable social segments. The governorate's achievements reflect a comprehensive assault on the problems of poverty, environmental degradation and the absence of community participation, all of which are of immediate concern in the EHDR 2005 medium-term vision for Egypt.

Qena's experiment in administrative management has received the Dubai International Award. The governorate has also acquired the ISO 14001 for environmental management,1 within the past 6 years.

What is the recipe?

1. An integrated vision and plan

The plan entails the reclamation of 352 thousand feddans to benefit poor youth and families. Investment is promoted in the recently established industrial zones in Qaft and Naga'a

▼ **Qena's experiment in administrative management has received the Dubai International Award**

1. ISO 14001 is the most widely recognized environmental management system standard. It is a specification standard. It was written as a consensus standard with nearly 50 countries participating in its development and over 100 countries endorsing it as an international standard. Gayle Woodside and Patrick Aurrchio, ISO 14004 Auditing Manual, New York, NY: McGraw-Hill Professional, 1999.

Hammadi, close to existing small industrial clusters. Tourism development has comprised establishing the Nile Corniche, an anchorage for Nile cruisers, a hotel, and the sound and light project in Dendara Temple.

The plan promotes all services. Water supply per person has increased by 20%, and the focus is on expanding paved roads, parks, village road networks, and extension of sanitation networks. The plan incorporates all environmental dimensions including solid waste management. An environmental profile was developed for the governorate and environmental offices have been set up in the governorate, cities and villages. Qena now celebrates the International Environment Day.

▼ **The street children phenomenon has disappeared in Qena**

2. Protection of the environment

To protect the agricultural lands against urban encroachment, the Governorate built an alternative village for each old one, 5 km away. The designated Zaheer Sahrawi (hinterland) for housing is divided into building lands of 800 sq. meters each with construction allowed on one-third of this area. The emergence of 189 desert hinterland projects will also help in establishing new urban communities, creating more job opportunities and reducing migration from village to city or to other governorates.

All projects and new developments are subject to Environmental Impact Assessment (EIA) and Environmental Management System (EMS) is central for economic establishments operating in Qena. An Integrated Solid Waste Management Project (ISWM) was implemented with awareness campaigns to secure public participation. Monitoring is undertaken by a supervisor, assisted by a foreman for every thirty workers in addition to committees that record deficiencies. Cleaning the streets is assigned on a three shift basis for every 300 meters. Residents also follow up the project and report any complaints. A LE 300 - 500 fine is imposed on violators.

3. Upgrading public social services

In the education sector, parents' councils have been replaced by boards of trustees to include prominent public figures and education staff. The boards are entrusted with follow-up and supervision of all school activities and school finances. A three-year plan was set up for illiteracy eradication and 5333 illiteracy classes were opened, and 6000 teachers from Qena residents were appointed. The first phase was completed in June 2004, during which 133,310 persons were educated. The second phase is still in progress. A new cultural center, five cultural houses and five women's clubs were added.

In rural health units a fee of LE 3 is now paid by each beneficiary who is not covered by health insurance, plus one-third of the medicine cost (to be deposited in the Service Improvement Fund) while LE 10 is paid for home visits. In addition, radiology, dentistry and small operations services are delivered against nominal fees. However, needy categories are treated for free. To avoid the bad practice of transferring patients to private clinics, physicians' salaries have increased to LE 1500 monthly.

National number IDs have been issued for almost every woman. A day has been devoted for women and girls in the Governorate's local cinema and the Governorate celebrates a Rural Women's Day once a year. Moreover the street children phenomenon has disappeared in Qena, after finding an NGO, which provides them with all services and necessities of life.

4. Fiscal decentralization

In order to develop local financial resources, coordination has been undertaken with popular councils to receive donations and collect charges. There are 24 bases through which fees are collected such as electricity bills, water counters, industrial licenses, vehicle, and motorcycle licenses, licenses for new buildings or extensions. Revenues are also generated from fines paid for traffic infractions and other violations. To avoid unconstitutional collection of such fees, the Governorate Popular Council and the Prime Minister's approvals have been secured. Separate funds have been established for every city and village as sub-accounts in the Local Development Fund.

5. Good governance

Good governance rules Qena's close adherence to ensures that corruption is minimized, and the views of minorities are heard:

Box 1.5: A reader's appraisal for the EHDR 2005 vision

The EHDR 2005 has taken up the bold challenge of enquiring into a 'Best Case Scenario' that would propell Egypt into the new century and raise its rank on the World Scale of Human Development. The realization of this EHDR vision is attainable provided that the right societal, economic and technical tools are in place and are applied to achieve the MDGs (UN, 2000) and the declarations of UN summits in 1992 (Rio de Janeiro) and 2004 (Johannesburg). In addition, Egypt's specificity at the political, economic, social and cultural levels has been given the utmost importance. Best practices and tools from inside Egypt and from the rest of the world have been carefully tailored for the purpose of scaling up the spatial configuration of life and work across Egypt's map and of responding to the expectations of a young and growing population. These tools are incorporated in the Report's proposed new 'social contract' for Egypt, which is a compact applicable to all citizens to respond to the current problems and future opportunities.

The compact provides elements of a framework (10 principles) that address issues of poverty, unemployment, transparency, peoples' participation and a client-centered strategy for social services, concluding with six messages gleaned from a household survey especially conducted to test citizen perceptions. Chapters address topics of macro economic and social development in an integrated manner. Each provides a concrete set of proposed options and recommendations on vital issues, and as such, offers policymakers and members of civil society the opportunity to debate and further analyze the dynamics of development.

While the report is a rich and welcome trust fund of ideas and suggestions, several questions remain to be addressed, possibly in a further exercise. A few examples will demonstrate these concerns: on education, the assessment of the societal impacts of the vastly diverse types and forms of schools and universities, and the correspondence between education, training and the labor market. Other questions relate to the future of agriculture and its capacity to remain economically viable in the face of subsidized agricultural output from developed countries; the trade-off between farm mechanization and agricultural employment; the need for innovative means for managing very small farms in the old agricultural lands; the need to reconsider the base for evaluating farm produce as per unit of water and as per unit of land (feddan), since water is now becoming the limiting factor.

On services, two issues related to tourism deserve attention. The first is outgoing tourism, including omra visits, and the second is the investments in seaside resorts with brief occupancy and little job opportunities. For ICT, now the flagship of the century, the Egyptian Society Information Initiative ushers in an encouraging future; the emerging software industry is a field of promise, but an assessment of the efficient use of imported instruments (hardware) may provide indicators for better managing the market.

The concept of sustainable development embraces environmental quality as an integral element, covering natural resources, including water and energy, pollution, and land use. It is unfortunate that the separation of these concerns from development undermines them in the priority sequence of policy. Much needed political support is needed here, and is proposed by the Report, as is land use, where conflicts of interest is at the base of this acutely felt problem. The Report suggests that a solution lies in a national land use plan that is technically sound, economically feasible and socially acceptable; further, the related problem of the rational use of limited freshwater resources needs to be made glaringly evident to every national. While the Report highlights the prevalent policies of maximizing gains from exporting oil and gas, these are not necessarily the best in the long run.

Successful management of all the critical questions raised by the EHDR 2005 will require positive public participation. This needs persuasion through well-conceived programs of public awareness and promotion of societal institutions capable of mobilizing popular contributions. Future reports will surely address these concerns.

Source: Mohamed el Kassas, Professor Emeritus, Cairo University

Participation. Consensus building is at the crux of the development processes in Qena. It involves mediation to reach a broad consensus on the best interest of the whole community. School Boards of Trustees also serve as forums for participation and decision-making.

Rule of law. The norm in Qena makes no exception. Violations are penalized, and fines are collected. In parallel, each major human settlement has a district for artisans and workshops situated 3 to 5 kms from the settlement, to reduce noise and other sources of pollution in residential areas.

Transparency and accountability. Before making a decision, the governor and senior advisors meet with citizens and a round of consultation starts. Based on inputs from the public's legitimate representatives and natural leaders, a decision is taken. The process is flexible enough to include feedback from monitoring, evaluation and verification.

6. Partnership between local government and the people

The pertinence of the development plans to the needs of the communities is ensured by the regular two-way communication that has nurtured a trust between local government officials and the people, a mutual sense of pride and responsibility. Weekly public gatherings with the executive authority are open and televised. The governor uses field visits as a management tool to have a closer view of citizens' conditions and give a good example to other executive officials.

The rule of law in Qena makes no exceptions

7. Respect for the public domain

Increased confidence in local administration has resulted in increased cooperation from the public. The discipline and respect excercised by the people towards the public domain is now visible, and so is their interest in local elections. Citizens percieve that they have an ownership share in development outcomes. ■

Annex 1.1: Supplementary Budget for Proposed EHDR Vision (2005-2015).

Table 1.2: Details of additional budget for EHDR vision and MDG programs (ten years)

Programs	Stakeholders and beneficiaries	Estimated cost
1. Poverty		
1.1 ***Expanding social safety nets*** and increasing financial assistance. (Monthly pension should not be less than LE 100).	**1.1** 70% of people under the lower poverty line, incapable of working, and equivalent to 11.7% of the population.	**1.1 LE 9.8 billion** (LE 0.98 billion annually) assuming the poverty rate does not change. Source: PRAP, Heba el Laithy
1.2 ***National Donation Program*** by using a coupon system covering tuition fees including books, uniforms, a daily meal and part of teacher's incentives.	**1.2** All poor household students and their families. An estimated 100,000 jobs created for women via NGO sector (to supply school meals, uniforms), social workers, NGO staff. Note: Funded by the whole society, the private sector, international organizations and NGOs.	**1.2 LE 15.1 billion** as a government grant (LE 1.51 billion annually). This is out of a total of LE 42 billion needed, where the rest can be funded by the private sector, international organizations and NGOs. Source: PRAP, Sahar el Tawila.
1.3 ***Poverty contract*** based on mutual obligation and contractual commitment. Families have to be not below the poverty line, to be not below the lower poverty line.	**1.3** Recruitment of 355,000 families per year for three successive years, where each family is supported for a two year period. 15,000 jobs created for social workers.	**1.3 LE 5.2 billion** for the three years (LE 1.7 billion annually). Source: EHDR (2005), Hania Sholkamy.
1.4 ***Mobile service*** for issuing birth certificates and national ID cards.	**1.4** 8.5 million with no birth certificates until the age of 18, and adults with no National ID cards.	**1.4 LE 255 million** for one year (LE 30 /document). LE 6.7 per capita. Source: PRAP, Sahar el Tawila.
		Subtotal Poverty: LE 30.4 billion
2. Basic education		
2.1 ***Early childhood development*****:** Egypt aims at reaching 60% of pre-school aged children through early childhood development programs by 2015.	**2.1** Reaching an additional 30% of the children through emphasizing the importance of teacher's training and extension. Up to 100,000 jobs for women created over decade.	**2.1 LE 1.2 billion** (LE 0.12 billion annually). Cost includes MOE accreditation of NGOs as intermediates. Source: EHDR (2005), Malak Zaalouk.
2.2 ***Girls' education (one classroom)*****:** Girls' education programs implemented by a meticulous information system through GIS.	**2.2** Eliminating the gender gap in targeted deprived areas.	**2.2 LE 429.8 million** until year 2012 (LE 61.4 million annually) Source: EHDR (2005), Malak Zaalouk.
2.3 ***Reducing class density*****:** Quality classroom should allocate 1.5 square meters per child provided with the necessary furniture.	**2.3** Reducing class density to average of 40 children per classroom. Cost is needed for providing funds for the remaining 70% of necessary increase of 132,144 classrooms and furniture.	**2.3 LE 11.8 billion** for providing classrooms (cost per classroom LE 127,890) and LE 925 million for furniture (cost per classroom LE 7,000). Source: EHDR (2005) Malak Zaalouk.
2.4 ***Maintenance and furniture*****:** Enabling new furniture to provide activity-based l earning in the primary schools established over last decade.	**2.4** Covering 12,936 classrooms.	**2.4 LE 90.6 million** (cost per classroom LE 7,000). Source: EHDR (2005), Malak Zaalouk.
2.5 ***Curriculum development*** and provision of learning materials:Learning guides, activity materials, school libraries and science and technology labs.	**2.5** Providing technical assistance with training and study visits.	**2.5 LE 151.8 million** over two years (76 million annually). Source: EHDR (2005), Malak Zaalouk.
2.6 ***Reform of learner assessment*****:** training for child assessment, academic knowledge, personality, attitudes and life skills.	**2.6** Covering technology training, training on assessment, English language training, and study tours to learn from other experiences.	**2.6 LE 20 million** (LE 2 million annually). Source: EHDR (2005), Malak Zaalouk.
2.7 ***In-service training*****:** Activity-based training targeting 100,000 teachers, 38,000 school principals, 19,000 inspectors and 554 educational leaders.	**2.7** To train 10,000 of the mentioned educators per annum is estimated at a cost of LE 15 million.	**2.7 LE 236 million** (LE 23.6 million annually, cost per trainer LE 1,500). Source: EHDR (2005), Inas Hegazy.
		Subtotal Basic Education: LE 14.9 billion
2.8 ***Adult Literacy*****:** Developing new adult literacy curricula and programs (age group 15–40).	**2.8** Informal sector workers and working children (18.8 million).	**2.8 LE 2 million** over two years (LE 1 million annually). Source: PRAP, Laila Iskandar, Khaled Abdel Kader.

annex 1.1: table 1.2

2.9 *Adult Literacy*: Training and monitoring the employees of the General Authority for Literacy and Adult Education (GALAE).	**2.9** 16.6 million illiterate person (1.7 million illiterate annually) from above groups.	**2.9 LE 1.7 billion** over two years (0.17 billion annually for 425,000 trainees, LE 2,000 annually for a trainee). Source: PRAP, L Iskandar, K Abdel Kader.
2.10 *Adult Literacy*: Eliminating illiteracy of working children who cannot be re-enrolled in the education system.	**2.10** 2.6 million children (257,143 child annually, LE 700/child annually.).	**2.10 LE 1.8 billion** (0.18 billion annually). Source: PRAP, L Iskandar, K Abdel Kader.
2.11 *Formal education programs*: To Mobilize and assist households in enrolment procedure of their children in the first primary grade.	**2.11** Children at risk of never being enrolled between 6-10 years. Note: Funded by local or central government.	**2.11 LE 6.4 million** (LE 0.64 million annually). Source: PRAP, Sahar el Tawila
2.12 *Formal education programs*: two-year program (on school premises after regular school hours) for out-of school children 11-14 years old to qualify them for 3rd primary	**2.12** Age group 10 – 14 dropouts or never enrolled in schools (956,250 children, only applied once). Teachers receive incentives for working after school official hours.	**2.12 LE 573.8 million** for one round over two years (cost per child LE 600). Source: PRAP, Sahar el Tawila.
2.13 *Incentive premiums* for attracting master teachers from other locations to give practical training to teachers in the targeted areas.	**2.13** Local teachers and teachers recruited from other areas for training (47,500 teachers).	**2.13** *{**LE 5.7 billion** (LE 0.57 billion annually, LE 1,000 monthly per master teacher): included within the National Donation Program (1.2)}.* Source: PRAP, Sahar el Tawila.
2.14 *Formal education programs*: funds for IT clubs, specialized computer and literacy training. The Universal Service Fund was set up in 2005 to support telecom services, especially in rural and less developed areas.	**2.14** LE 400 million goes for IT clubs (4,000 IT club), LE 108.5 million for basic skill development programs (108,467 trainee) and LE 332.3 million for specialized training programs (22,155 trainee).	**2.14 LE 841 million** (LE 84.1 million annually). Source: EHDR (2005), Sherif Hashem.
		Subtotal Literacy: LE 4.9 billion
2.15 *Vocational training*: Completing the National Skill Standards project.	**2.15** 500 vocations (in addition to 105 professions already monitored). Note: Funded by Government and donor countries.	**2.15 LE 637.5 million** over three years (LE 212.5 million annually, LE 1.3 million per vocation). Source: PRAP, Omar el Farouk.
2.16 *Vocational training*: Provision of equipment for 638 training centers to become accredited for training and issuing licenses.	**2.16** Implemented by the Higher Council for Human Resources Development.	**2.16 LE 1.9 billion** over five years. Source: PRAP, Omar el Farouk.
2.17 *Vocational training*: Developing cadres for training using modern techniques.		**2.17 LE 459 million** (LE 45.9 million annually). Source: PRAP, Omar el Farouk.
2.18 Documenting training packages for vocational qualifications.	**2.18** 500 vocations. Implemented under supervision from Ministry of Military Production.	**2.18 LE 510 million** (LE 170 million annually for three years, LE 1 million per vocation) Source: PRAP, Omar el Farouk.
2.19 *Vocational training*: Developing TOT programs (for building, sewing, and carpet manufacturing, as available).	**2.19** 408 trainers over two years implementation (204 trainer annually, LE 4,902 per trainer) after assessing their needs.	**2.19 LE 2 million** for the two years (LE 200,000 annually). Source: PRAP, Omar el Farouk.
2.20 *Vocational training*: Surveying private sector products and specifications that can be produced by trainees.	**2.20** (NGOs undertake survey and contract with the private sector).	**2.20 LE 1.9 million** applied only one time for 3 months. Source: PRAP, Omar el Farouk.
2.21 *Vocational training*: Qualifying first class trainees in the above professions.	**2.21** Attempting to link tailors with garments industry. Note: Funded by the Young Graduates Project.	**2.21 LE 892.5 million** (LE 89.3 million annually, LE 44.7 million per 6 months). Source: PRAP, Omar el Farouk.
2.22 *Vocational training*: Micro loans for trainees for purchasing sewing machines.	**2.22** Sewing trainees. Note: Implemented by the SFD.	**2.22 LE 1 million**(ongoing) Source: PRAP, Omar el Farouk..
2.23 *Vocational training*: Supervision, quality monitoring and technical assistance.		**2.23 LE 200,000** (ongoing) Source: PRAP, Omar el Farouk.
2.24 *Vocational training*: Establishing a Fund for financing those who desire to acquire a skill level.	**2.24** Mobilized by the SFD as a First Phase.	**2.24 LE 637.5 million** (average duration of the loan would be 3 years). Source: PRAP, Omar el Farouk.
		Subtotal Vocational Training: LE 5 billion
3. Health		
3.1 *health insurance* for those who are not covered by HIO or any other system.	**3.1** Covering the remaining 50% of the population. About 23,000 jobs created, of which 50% for women.	**3.1 LE 23.3 billion**. Source: NDP, Policies Council.

3.2 ***Enhancing Health Insurance*** System in schools by providing it bi-weekly within school premises.	**3.2** Students of 19,125 schools (covered by 6,375 doctors, a doctor per three schools).	**3.2 LE 510 million** (LE 51 million annually, LE 667 per month per doctor). Source: PRAP, Sahar el Tawila. **Subtotal Health: LE 23.8 billion**
4. Social security **4.1** ***Insurance*****:** Government paying a part of the employers' contribution to social insurance of new workers.	**4.1** In 2015 insured workers are estimated at 2.3 million, the government contribution on behalf of employers is LE 1.19 bil, employees contribution is LE 1.23 billion.	**4.1 LE 8.7 billion** (about 870 million annually). Source: EHDR 2005, Marwa Salem **Subtotal Social Security: LE 8.7 billion**
5. Small and medium enterprise **5.1** ***Finance*****:** Covering the financial needs of the SMEs through long-term credit. Average duration of the loan would be 5 years. **5.2** ***Credit*****:** Enabling the Credit Guarantee Corporation (CGC) to expand guarantees to banks to cover credit lines for NGOs that provide micro credit. **5.3** ***NGOs*****:** Qualifying the mature NGOs engaged in providing micro credit for receiving international finance. **5.4** ***Resources*****:** Increasing the number of business resource centers (BRCs) and training centers (TCs) to 22 BRCs and 6 TCs. **5.5** ***Procedures*****:** Training micro enterprises on dealing with Tax and Social Insurance Authorities. **5.6** ***Soft loans*****:** Loans for small household waste collection and recycling projects.	**5.1** Create 161,575 direct new jobs at LE 1.6 bil to cover existing enterprises with a capital cost of LE 10,064 per job. Up to 30% additional indirect jobs= 48,473. **5.2** 80,000-100,000 poverty loans beneficiaries (40,000 beneficiaries to be reached in 4-5 years by 4 NGOs) assuming a significant focus is directed to poverty lending.* **5.3** 600,000 – 900,000 client by 60 NGO's (6 NGOs annually, where for each there are 10,000-15,000 clients, who would benefit). **5.4.** Beneficiary enterprises from the BRCs are 32,315, and the number benefiting from the TCs are 30,950. **5.5** One million enterprise (100,000 enterprises annually) enabled to increase their loan sizes. **5.6** 100,000 job opportunities (10,000 annually) in approximately 100 enterprises. * Up to 100,000 home-based jobs created for women via the NGO sector.	**5.1 LE 0.8 billion** (the required finance per enterprise would be around LE 50,000.) Source: EHDR (2005), Alia el Mahdi. **5.2 LE 140 million** by 40 NGOs (cost per beneficiary is LE 1,400 - LE 1,750. LE 1 billion are capital loans), assuming that the company uses financial leverage. Source: PRAP, N el Oraby, N el Shami. **5.3 LE 12 million** (LE1.2 million annually for 6 NGOs, cost per client LE 13.3 – LE 20). Source: PRAP, Nivine el Orabi, N el Shami **5.4 LE 66 million** (total fixed cost of LE 24 million/annual running cost of LE 4.2 million). Source: EHDR (2005), Alia el Mahdi. **5.5 LE 80 million** (LE 8 million annually, benefit per enterprise is LE 80). Source: PRAP, N el Oraby, N el Shami. **5.6 LE 24.3 million** (cost per job opportunity LE 243) for LE 143 small loan. Source: PRAP, Nivine el Oraby. **Subtotal SMEs: 1.1 billion**
6. Agriculture **6.1** ***Husbandry*****:** Supporting animal husbandry extension services and providing micro loans for poultry projects. **6.2** ***Mechanization*****:** Applying farm mechanization as a long-term loan. **6.3** ***Extension*****:** Supporting agriculture extension services and expanding automated cultivation.	**6.1** 300,000 beneficiaries who have from 1-2 cattle heads (30,000 beneficiaries annually), and 300,000 from poorest families (30,000 families annually). **6.2** Expected yield from applying farm mechanization on the lands is LE 36 billion over the ten years. All bought items are locally manufactured). **6.3** Up to 2.5 million beneficiaries (250,000 beneficiary annually), who has one feddan or less, in 600 villages in 50 Upper Egypt *markaz*.	**6.1 LE 80 million** mostly poultry loans. (Average duration of the loan would be one year). Source: PRAP, Nivine el Oraby. **6.2 LE 5 billion** for the needed machines. Source: EHDR (2005), Z Haddad in S Nassar Paper. **6.3 LE 150 million.** Average duration of the loan would be five years. Source: PRAP, Nivine el Oraby. **Subtotal Agriculture: LE 5.2 billion**
7. Sanitation and Water **7.1** ***Households*****:** Providing sanitation facilities for households. **7.2** ***Pollution*****:** Covering the canals with concrete pipes or culverts to reduce vaporization and water pollution.	**7.1** 20 million people contribution (cost per capita LE 1,000) of which 15 million outside and 5 million inside Cairo and Alexandria. **7.2** 42,000 man/months work (equivalent to 3,500 man/years) and reducing vaporization and pollution.	**7.1 LE 20 billion** is paid by the government as long-term loan. LE 8 bil does the community pay. Source: EHDR (2005), R. Honert. **7.2 LE 180 –225 million** for 100 km (LE 1.8 – LE 2.3 million per km). Source : PRAP, Hany Attallah.

annex 1.1: table 1.2

7.3 *Training*: potable water maintenance system lacks efficient workers and resources. **7.4 *Upgrading***: Rehabilitation and replacement of dilapidated drinking water pipes that exceeded their lifetime. **7.5 *Conservation*:** Installing water tanks filling valves. **7.6 *Metering*:** Installing water meters. **7.7 *Nile Banks*:** Coverage of the Nile banks to complete the Ministry of Irrigation projects with the Nile Research Institute. **7.8 *Loans*:** Provision of long-term Loans (through NGOs) for household potable water connections. **7.9 *Sanitation*:** projects (with assessment of implemented projects). **7.10 *Drainage*:** Government long-term loans (through NGOs) for household sanitary drainage connections.	**7.3** 40 man/months work (equivalent to 3 man/years) and improving water management. **7.4** 20,000 man/months work (equivalent to 1,667 man/years) and reducing water loss. **7.5** 100 man/months work (equivalent to 8 man year) and reducing water loss. **7.6** 3,500 man/months work (equivalent to 292 man/years) and improving tariff collection. **7.7** 100,000 man/months work (equivalent to 8,333 man/years) and reducing fertile land erosion. **7.8** 20,000 man/months work (equivalent to 1,667 man/years), and service delivery. **7.9** 200,000 man/months work (equivalent to 16,667 man/years) and a less polluted environment. **7.10** 13,500 man/months work (equivalent to 1,125 man/years) and service delivery.	**7.3 LE 500,000 f**or training 1,000 workers (LE 500 per worker). Source : PRAP, Hany Attallah.. **7.4 LE 144 million** for 1,000 km (LE 144,000 per km). Source : PRAP, Hany Attallah. **7.5 LE 420,000 – 700,000** for 1,000 valves (LE 420 – LE 700 per valve). Source: PRAP, Hany Attallah. **7.6 LE 28 million** for 100,000 meters (LE 280 per meter). Source : PRAP, Hany Attallah. **7.7 LE 238 –280 million f**or 200 km (LE 1.2 – LE 1.4 million per km). Source : PRAP, Hany Attallah. **7.8 LE 40 – 60 million** for 100,000 households (LE 400 – LE 600 per household). Source : PRAP, Hany Attallah. **7.9 LE 720 million** for 50 projects (150 villages) (LE 4.8 million per village). Source : PRAP, Hany Attallah. **7.10 LE 30 – 40 million** for 50,000 households (LE 600 – LE 800 per household). Source : PRAP, Hany Attallah. **Subtotal sanit/water: LE 29.5 billion**
8. Housing and area development **8.1 *Infrastructure*:** Provision of infrastructure for 2 million houses of low income families (long-term) out of a total of 3.7 million housing units. **8.2 *Credit*** (long-term) for building 2 million housing units. **8.3 *New villages*:** Attracting families from densely populated governorates to form nucleus of villages around El Salam Lake in the framework of North Sinai Development Project (and agriculture products processing and marketing company to be established in each village). **8.4 *Pilots*:** Integrated development in Siwa: Environmental protection, activating organic farming for internationally recognized Siwa products, handicraft industries, restoration of Shali archeological city, establishing a solar energy power plant, eliminating diesel pumps and contracting with solid waste management and treatment companies. **8.5 *Redevelopment*:** Slum upgrading (demolition or rehabilitation).	**8.1** Building one million housing units in rural areas and one million in urban areas. This represents about 54% of required housing units for low income families. Note: The government pays 27.3% of the total amount needed building the required housing units. **8.3** 60,000 households for 60 new villages (with extension services and housing units) and upgrading the original villages. The government contributes LE 1.8 bil for public buildings, LE 3.9 bil will be paid by individuals on installments, LE 1.5 billion for original villages to be included in 'Shourouk' Program or the Emergency Plan. **8.4** Siwa inhabitants who live in remote areas with no electrical power would benefit, and new tourism job opportunities created in Shali, as well as in handicraft industries and agriculture, for both Siwa inhabitants and workers attracted from other Upper Egypt governorates characterized by high levels of poverty and unemployment. **8.5** Cost of redeveloping 300,000 housing units at LE 16.5 billion of which LE 10 billion are contributed as direct government finance.	**8.1 LE 22.2 billion** (cost of infrastructure per household in rural areas is LE 18,000 and in urban areas LE 4,200). Source: EHDR (2005), Mustafa Madbouly. **8.2 LE 19.4 billion** share of government credit (cost per household in rural areas is LE 21,000 and in urban areas LE 50,000). Source: EHDR (2005), Mustafa Madbouly. **8.3 LE 7.2 billion** (LE 720 million annually, cost per household LE 120,000). Source: PRAP, Mahmoud el Sherif. **8.4 LE 21.5 million** (LE 10 million as capital investment for two years-the government contributes 50%, the rest is paid by the private sector -, LE 8 million for annual restructuring and LE 350,000 annually is funded by the government for waste collection.) for Shali and the solar power. Source: PRAP, Mounir Nematallah. **8.5 LE 10 billion** (LE 55,000 per housing unit). Source: EHDR (2005), Mustafa Madbouly. **Subtotal Housing/area: LE 58.8 billion**
9.1 *Administration*:The National Vision and Strategy Unit to administer the proposed programs in an integrated package.	**9.1** The unit will report to the Prime Minister and consist of a team dedicated to formulating, implementing and monitoring.	**Administrative subtotal: LE 60 million**
Grand Total		**LE 181 billion (LE 18.1 billion annually)**

Notes to Annex 1.1: Table 1.2

Poverty

1.1: The Social Safety Nets expansion is restricted to those incapable of working. (Those capable of working are supported through training programs, micro loans and public works). Beneficiaries include those who are more than 65 years of age and have no livelihoods or pensions; the handicapped; children with no provider - while ensuring that they enroll in schools; women household heads with no income (until assisted through training and micro credit) and those with emergency circumstances that have rendered them temporarily unemployed. Beneficiaries are to participate in developing the program's general policy, while applying decentralization in decision-making, setting priorities and allocating available resources through building local community capacity to support local authorities and increase the efficiency of voluntary work organizations and civil society institutions. The costs are multiplied by five based on a two-year estimate of LE 1.96 billion.

1.2: The National Donation Program will benefit the whole family and not only the children as it does not only cover tuition fees and books, but daily meals and a part of teachers' incentives. Ministries of Education and Information, El-Azhar, the Coptic Church, the National Council for Childhood and Motherhood and NGOs will implement this program. Financing sources include society as a whole, private business sector, international and developmental organizations and NGOs. The costs are multiplied by five based on a two-year estimate (LE 850 million), where the share of health insurance in EHDR 2005 was subtracted from the total cost.

1.3: In the Poverty Contract Program, if the families are successful in completing their contract they are connected with programs already made available though state and non-state bodies which offer credit, employment, or other income generating opportunities. By completing their contract, families gain priority access to these programs. Key to the success of the program is the creation of a highly professionalized and independent cadre of social workers who are the real catalysts for change. The LE 5.2 billion covers LE 4.8 billion going directly to the families and LE 390 million going towards social worker salaries, training, overhead, monitoring and evaluation.

1.4: In both the National Donation Project and the issuance of birth certificates and national IDs of PRAP, estimates are generalized from only ten districts (3 million people) to all the other targeted districts: per capita costs in the ten poorest districts x all 113 poorest ones (24.6 million people) + per capita costs in the ten poorest districts x 0.5 for the second 113 poorest districts (18.7 million people) + per capita costs in the ten poorest districts x 0.25 for the third poorest 113 districts (17.2 million people), while no additional costs were allocated to the remaining 112 districts.

Education

2.1: The Early Education Development Program is an area which has proved its relevance for school readiness and its powerful impact on student achievement in later years. There have, in addition, been studies to indicate that such programmes directly contribute to social mobility and breaking the cycle of poverty. Joint resources will have to be targeted to the poorest and most deprived areas. Reaching 30% of the pre-school aged children through supporting preschools according to criteria on teacher's training will cost LE 1.2 billion. The program will create at least 100,000 jobs for women over the decade. The costs are based on 2005-2010 ($ 103 million) estimate for the current program supported by GOE and donors to cover 30%.

2.2: Costs are based on 2002-2007 estimate of LE 307 million, where LE 184.2 million for the period 2002-2005 was subtracted and the rest LE 122.8 million was added to the LE 307 million of the following five years of 2007-2012.

2.3: Currently 40% of the schools have a class density far exceeding the average of 40 children per classroom; in fact many classes reach 80 students which makes learning of any kind virtually impossible. In addition to classroom crowdedness the kinds of furniture used are not fitting for activity-based learning. That is why reducing class density to an average of 40 children per classroom and creating more space for children to learn withquality, is recommended. A total of LE 12.7 billion is required for providing more classrooms and their appropriate furniture.

2.6: Costs are based on a two-year estimate (LE 4.million) and were multiplied by five.

2.11 and 2.13: Costs are multiplied by five based on a two-year estimate (LE 100,000 and LE 90 million respectively), and the costs and beneficiaries number of 2.10 are multiplied by ten based on a one-year estimate (LE 14 million for 20,000 child).

2.19 and 2.21: Estimates of number are based on a six-months estimate (LE 500,000 and LE 3.5 million respectively) where 2.19 (LE 500,000) was multiplied by four for a two year estimate and 2.21 (LE 3.5 million) was multiplied by 20 for a ten year estimate.

2.17 are based on a five-year estimate (LE 18 million) and were multiplied by two.

In the literacy and training components of PRAP, estimates are generalized (except 2.8 and 2.19, which are general for all districts) from only ten districts (3 million people) to all the other targeted districts. Same calculations as for poverty, see note on 1.1 and 1.4.

Health

3.1: The GOE and the National Democratic Party have emphasized the importance of improving access of the poor to health services, providing them with security, particularly financial security to protect them from catastrophic payments. The current social health insurance system through the health insurance organization (HIO) covers government employees, workers and school children. The minimum health cost is estimated at LE 281 per capita at 2000 prices:

People between age 60-75 form 3.6% of people not benefiting from health insurance.

People between age 20-60 form 25.8% of people not benefiting from health insurance.
People between age 0-20 form 70.4% of people not benefiting from health insurance.
Average Package cost for people aged 60-75: LE 468,203,631/537,281 persons = LE 871.4
Average Package cost for people aged 20-60: LE 699,763,233/1,466,563 persons = LE 477.1
Average Package cost for people aged 0-20: LE 215,658,585/1,203,928 persons = LE 179.1
(LE 871.4 x 3.6%) + (LE 477.1 x 25.8%) + (LE 179.1 x 70.4%) = LE 281.6 per package.

3.2: Costs are multiplied by five based on a two-year estimate (LE 8 million). Estimates are generalized from only ten districts (3 million people) to all the other targeted districts: Same calculations as for poverty, see notes on 1.1 and 1.4.

Social security

4.1: The targeted SMEs are those in the informal sector, which constitute 85% of total SMEs. The salary per informal employee is currently estimated at LE 175 per month and the BC scenario estimates that income will grow by an annual real 7% (GDP growth). Contribution of government is 13.5%, which is half that of employer (half of 26% + 1%) while the contribution paid by the employee continues at 14% of his/her basic salary. This program will require an amount of LE 8.7 billion from government for the next ten years.

Small and medium enterprises

5.2, 5.3 and 5.5: Costs are based on a one-year estimate (LE 14 million, LE 1.2 million and LE 8 million respectively) and each is therefore multiplied by ten.

5.6: Costs and number of beneficiaries are based on a 30% increase from the original PRAP estimates (LE 17 million), that were based on two years, so that the numbers get generalized over ten years.

Agriculture

6.2: Out of a total of LE 10 billion needed for applying farm mechanization over the next ten years, the government will provide LE 5 billion for financing the fully automated process in planting wheat.

6.1 and 6.3: The number of beneficiaries and costs are based on a two-year estimate (LE 160 million and LE 60 million respectively) and are each multiplied by five.

Sanitation

7.1: In order to insure that all families in Egypt are connected to sanitation facilities, it is estimated that these facilities have to be provided to 20 million people. The cost is estimated to be around LE 1,700 per capita, out of which the community pays LE 400, the owner LE 300 and the state LE 1,000. This means that a total of LE 20 billion will be needed from the state to cover the sanitation facilities for 20 million people. Around 5 million of these will be inside Cairo and Alexandria and about 15 outside. The LE 20 billion that the government provides are long-term loans, the LE 8 billion, that the community provides are grants and the LE 6 billion which the beneficiaries pay could be either in kind or in work contribution in helping to build sanitation facilities.

7.2, 7.4 and 7.9: Costs are based on a 10% addition of the total cost to the original one (LE 100-125 million, LE 80 million and LE 400 million respectively) based on a two-year estimate. The additional 10% is for operational and maintenance costs and begins after the second year where it was multiplied by eight.

7.5, 7.6 and 7.7: The costs are based on a 5% addition of the original cost (LE 300,000-500,000, LE 20 million and LE 170-200 million respectively) based on a two-years estimate, where the additional 5% is for operation and maintenance cost and begins after the second year where it was multiplied by eight.

Housing and area development

8.1, 8.2, and 8.5: The expected increase in population of about 23 million by 2020 can be accommodated by developing new reclamation areas, new cities and urban communities; increasing the efficiency of land use in existing cities and villages, and by developing new villages and small urban settlements in the desert hinterland. In order for 2 million houses to be built and provided with infrastructure by the year of 2015, the government should contribute loans of LE 51.6 billion (LE 22.2 billion + LE 19.4 billion + LE 10 billion). This represents half the total amount needed for these 2 million housing units, assuming that 10%of the cost would be directly paid by the beneficiary as down payment and the remaining would be through other financial entity. The LE 10 billion required from the government for slum upgrading will be recovered through the ten years, as higher buildings and spaced flats are envisaged.

8.3: The number of household and villages and the cost are based on a two-year estimate (LE 1.44 billion, for 12,000 households for 12 village), where they were multiplied by 5.

CHAPTER TWO

The Status of Human Development

Progress is evident in a review of the status and trends in human development in Egypt eleven years after the launch of the first Egypt Human Development Report in 1994. This chapter presents the results of the 2004 data sets on Human Development Indicators (HDI) currently in use across Egypt, and their critical assessment. Additionally, the chapter extensively covers Egypt's progress towards the achievement of the Millennium Development Goals, as part of the national effort to address the specific needs of the poor and to combat gender discrimination.

1. Human Development in Egypt

The national level

HDI achievements are evident and noteworthy. Whatever reservations on the statistical values of the HDI and its major components, they do reflect a general trend of human development improvement on the national level. Over the last decade, Egypt has accomplished a 17% rise in its Human Development Index (HDI), where this index increased from 0.589 in 1994 to 0.689 in 2004. This has pulled Egypt from the low to the medium category of human development according to the ranking used in the global HDR, and progress is also visible in the major components used to calculate HDI.

▼ Aspects of the profile of human deprivation have shown significant reductions over the last decade

Egypt's Ministry of Planning is careful to assess the accuracy of the main HD Indicators reported; propose plausible indicators and recommend monitoring tools; and build consensus on refined indicators to formulate an action plan for the future. All indicators of human development and deprivation analyzed in this part of the Egypt Human Development Report 2005 reflect to a great extent the results of these activities.

Some positive indicators

The two indicators used to calculate the Education Index are the combined basic, secondary, and tertiary enrolment ratio and the adult literacy ratio (15+). The combined basic, secondary, and tertiary enrolment ratio has increased from 66.2% in 1994 to 74.2% in 2004 due to national efforts in raising awareness and building a large numbers of schools over the last decade. The rate of reading and writing for the adult population (15+) has increased from 52.3% in 1994 to 65.7% in 2004. This substantial improvement is attributed to the government educational policies and the many other efforts and resources to help reduce adult illiteracy.

Improvements in the health status are also reflected by a decline in child and infant mortality between 1994 and 2004 and an increase in life expectancy by 6% over the same period. These improvements were due to an increase in the percentage of vaccinated children to 99.6% and a substantial decline in maternal mortality rates.

All aspects of the profile of human deprivation — except unemployment — have shown significant reductions over the last decade.Expressed in numbers of deprived people, this decrease seems considerable when taking into consideration that the population has increased from 55.2 million in 1992 to 69 million in 2004. Population without access to piped water has decreased from 12.1 million in 1992 to 6.1 million in 2004. Between 1991 and 2004, children dying before age five decreased from 98.2 thousands to 28.6 thousands. During the same period, children not in basic or secondary schools decreased from 2.9 million to 1.6 million. Illiterate adults (15+) decreased between 1993 and 2004, from 18.9 to 16.2 million. It remains to be seen if improvement on the national level has trickled down to close the regional and gender gaps.

With regard the unemployed, this remains a national challenge, with numbers increasing from 1.8 million (of whom 845 thousands women) in 1993 to 2.15 million (of whom 1.2 million women) in 2004. Nevertheless, the reduction in human deprivation reflects the fact that economic growth over the last decade has had an impact on those people who are economically disadvantaged. Using the national poverty line, the number of poor persons, as a percentage of the total population, has significantly decreased from 35.1% in 1991 to 20.16% in 2004.

The regions

At the governorate level

Regional level analysis reveals disparities in the HDI among the three major regions; Lower Egypt, Upper Egypt, and urban governorates. While urban governorates continued to be, on average, the top performers as to the value of HDI, Upper Egypt comes last. Table 2.1 shows the HDI performance for the three regional groups over the last decade.

Table 2.1 demonstrates a catching up effect. Although urban governorates are still the best performers on all fronts of human development, Lower and Upper Egypt governorates seem to converge towards their urban counterparts. This can be clearly seen from the substantial improvement in HDI which was 20.2% for Lower Egypt

Table 2.1: Average HDI values for the major groups of governorates

	1994	2004	Improvement (%)
Urban governorates	0.718	0.766	6.7
Lower Egypt governorates (LE)	0.570	0.685	20.2
Upper Egypt governorates (UE)	0.532	0.657	23.5
Regional gap (LE-UE)	0.038	0.028	-35.7

Source: Egypt Human Development Report, various years

and 23.5% for Upper Egypt between 1994 and 2004. The gap between HDI in Lower and Upper Egypt is also narrowing down. This gap has declined by 35.7% between 1994 and 2004 (see Table 2.1 and Figure 2.1).

Though diminishing over time, regional disparities in education and health indicators remain relatively large. Comparing various human development indicators in Upper Egypt to their values in Lower Egypt reveals uneven progress in human development on the regional level. In 2004, adult illiteracy was as high as 43.5% in Upper Egypt while it was only 19.2% in urban governorates, 29.7% in Frontier governorates, and 35.1% in Lower Egypt.

The number of people without access to sanitation in Upper Egypt is alarming when compared to the same number in other regions in 2004. The picture becomes gloomier when comparing in 2004 the number of poor persons in Upper Egypt (9 million) with urban governorates (1.2 million) and Lower Egypt (3.9 million). According to 2003-2004 data, the number of children not in basic or secondary schools in Upper Egypt is one and a half times the number in Lower Egypt.

However, the diminishing gap in the overall human development index does not necessarily imply a convergence on all indicators composing in the HDI. Upper Egypt has achieved remarkable success in reducing several health indicators, especially infant, under-five, and maternal mortality rates. This has certainly caused life expectancy to rise in Upper Egypt at a faster pace than it did in Lower Egypt. But it should be noted that life expectancy and school enrolment, in particular, move very sluggishly at higher development levels, which makes catching up

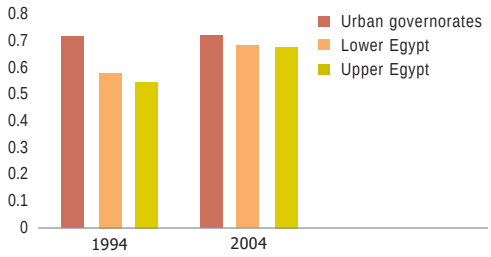
Table 2.2: Regional gaps in selected indicators

		Lower Egypt		Upper Egypt		Gap	
		1992	2004	1992	2004	1992	2004
Thousands	Illiterates	7503	6940	6931	7748	-572	808
	Poor	3709	3957	5738	9030	2029	5073
	Unemployed	947	1061	496	697	-451	-364
Ratio	Infant mortality	30.1	15.8	44.1	25.8	14.0	10.0
	Under-five mortality	49.1	20.3	77.8	34.6	28.7	14.3
	Maternal mortality	132.0	65.7	217.0	73.4	85.0	7.7
	Immunization coverage	74.4	99.6	54.8	99.7	19.6	0
	Birth attended by health pesonnel	39.7	76.0	29.7	56.7	10.0	19.3
	Underweight children	7.7	4.8	11.4	10.2	3.7	5.4
		53.5	65.2	31.4	49.4	22.1	15.8

Notes: Numbers in green indicate that the gap between Lower and Upper Egypt with regard to the respective indicator of human deprivation is narrowing down over time. Numbers in blue indicate that the gap between Lower and Upper Egypt with regard to the respective indicator of human deprivation is widening over time

Source: Egypt Human Development Report, various issues

Figure 2.1: Regional human development gap narrowing down



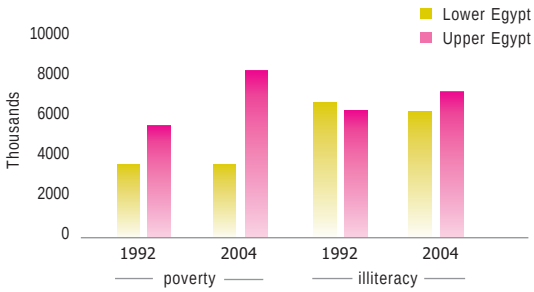
Source: Based on Table 2.1

▼ Comparing human development indicators in Upper Egypt to Lower Egypt reveals uneven progress

easier for the less developed regions. This explains why the HDI gap between Upper and Lower Egypt has been declining, given that the initial overall development level in Lower Egypt was much better than it was in Upper Egypt. By the same token, there are other aspects of human development for which convergence between the two regions is not an immediate consequence of an improvement in the development level, e.g. poverty, unemployment, and per capita income. These three indicators are not bounded by a ceiling and may not see improvements unless growth is accompanied by more equal distribution of income. Table 2.2 reveals that Upper and Lower Egypt have been converging with respect to some indicators while diverging with respect to others.

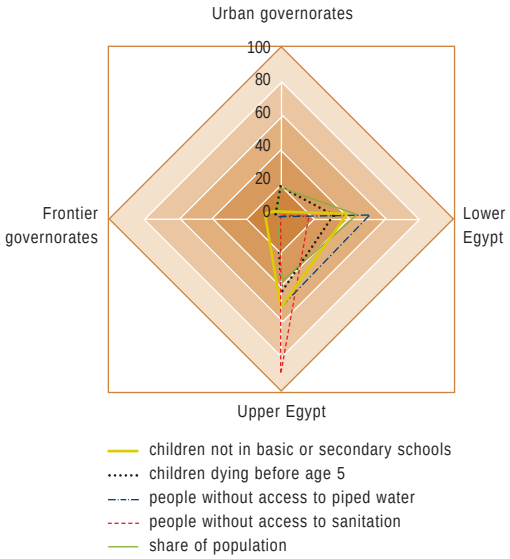
Health indicators, especially on child survival and development, also show some disparities between Upper Egypt and other regions. In

Figure 2.2: Evolution of human deprivation between Lower and Upper Egypt



Note: Based on data in Table 2.2
Source: K. Abdel-Kader, Background Paper, EHDR 2005

Figure 2.3: Regional distribution of total deprived people



Source: K. Abdel-Kader, Background Paper, EHDR 2005

Table 2.3: Percentage distribution of total deprived persons among different groups of governorates

Indicator	Year	Urban Gov. (18.3% of total pop)	Lower Egypt (43.4% of total pop)	Upper Egypt (36.7% of total pop)	Frontier Gov. (1.4% of total pop)
Without access to piped water	1992	0.6	46.9	51.4	1.1
	2004	0.5	50.7	47.5	1.5
Without access to sanitation	1992	1.9	33.3	63.8	1.0
	2004	0.2	12.4	85.4	2.0
Children dying before age 5	1992	10.5	33.8	54.5	1.2
	2004	19.2	31.1	47.9	1.4
Children not in basic or secondary schools	1992	8.7	38.2	51.8	1.3
	2004	1.5	37.6	53.5	7.3
Illiterates (15+)	1992	13.3	44.5	41.1	1.1
	2004	8.3	42.8	47.8	1.2
Poor persons	1992	17.6	31.9	49.3	1.2
	2004	8.2	28.0	63.7	0.1
Unemployed persons	1993	17.9	52.3	27.5	1.4
	2004	17.0	49.3	32.4	1.4

Note: Numbers in black indicate that the percentage of deprived population in that region is less than or equal to the region's share of total population, implying a regional gap in favor of the region. Numbers in green indicate that the percentage of deprived population in that region is more than the region's share of total population, implying a regional gap biased against the region
Source: K. Abdel-Kader, Background Paper, EHDR 2005

▼ **Egypt is one of nine countries with the highest illiteracy rates in the world**

2004, infant mortality (per 1000 live births), maternal mortality rate (per 100 thousand live births), under five mortality rate (per 100 thousand live births), the ratio of births attended by health personnel, and the ratio of under weight (below age 5) children have shown large discrepancies in their values in Upper Egypt compared to Lower Egypt. In 2004, the values of these indicators were, respectively, 25.8, 73.4, 34.6, 56.7, and 10.2 in Upper Egypt versus 15.8, 65.7, 20.3, 76.0, and 4.8 in Lower Egypt. However, persistent and increasing gaps between Lower and Upper Egypt with regard to some aspects of human deprivation, especially the number of illiterates and poor, remain a challenge (Table 2.2).

Table 2.3 reinforces the conclusion that disparities in aspects of human deprivation are evolving over time. It indicates the distribution of total deprived persons, which must add up to 100% in a given year. It shows that urban governorates are the least disadvantaged group and that the percentage of people suffering from human deprivation in these governorates is much less than their relative shares of total population. Upper Egypt represents the other extreme as the most disadvantaged group with the highest incidence of human deprivation.

The Urban-Rural Level

Available data do not help identify urban-rural gaps in terms of the major components of the Human Development Index either at the national or the governorate level. However, a number of available sub-HDI indicators are revealing of the urban-rural imbalance in Egypt. Some of the urban-rural gaps have been narrowing down over the last decade but others persist. As expected, within the major groups of governorates, urban-rural gaps are relatively larger in Upper Egypt than at the national level or for other groups of governorates in Egypt.

Some changes reflect the commitment of the government to improve conditions in rural areas.

Table 2.4: Urban-rural gaps in human development

(%)	Urban Egypt		Rural Egypt		Gap (urban-rural)	
	1992	2004	1992	2004	1992	2004
Poverty	35.9	10.7	34.1	27.4	1.8	-16.7
Gini coefficient	39.7	37.5	33.3	23.6	6.4	13.9
Literacy	64.4	68.6	35.4	53.2	29.0	25.4
Female literacy	53.3	63.6	20.0	29.6	33.3	34.0
People with secondary or higher education	27.3	40.2	8.5	20.2	18.8	20.0
Female with secondary or higher education	18.2	35.6	2.7	13.5	15.5	22.1
Access to piped water	96.9	97.5	61.1	82.1	35.8	15.4

Note: Numbers in green indicate that the gap between Urban and Rural Egypt with regard to the respective indicator of human development is narrowing down over time. Numbers in blue indicate that the gap between Urban and Rural Egypt with regard to the respective indicator of human development is widening up over time
Source: Egypt Human Development Report, various issues

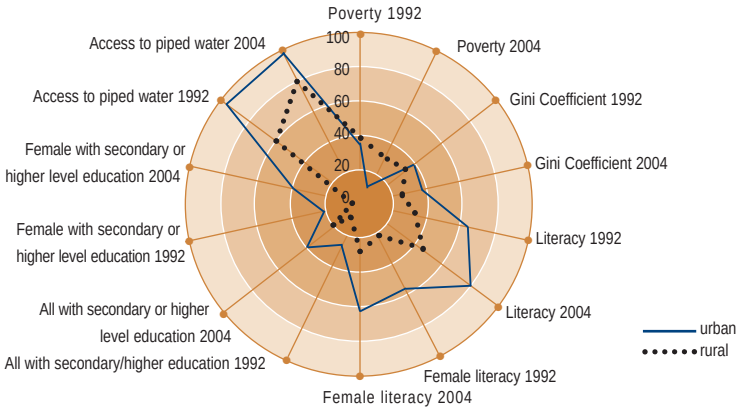
Table 2.5: Poverty and illiteracy rates

Governorate	Poverty (%)	Illiteracy (%)	Female illiteracy	HDI	Rank
Beni Suef	43.6	48.6	56.2	0.626	18
Menia	38.2	50.6	57.8	0.625	19
Assiut	61.0	47.9	55.6	0.617	21
Suhag	45.7	50.4	57.7	0.623	20
Qena	33.0	49.9	57.3	0.639	17
Upper Egypt	34.0	43.2	51.8	0.657	--
Lower Egypt	13.9	35.1	44.6	0.685	--
Urban governorates	6.2	19.2	31.1	0.766	--
Frontier governorates	5.3	29.7	40.0	N/A	--
Egypt	20.2	34.3	44.8	0.689	--

Source: Egypt Human Development Report, (2005). Egypt Human Development Report (2004), the status report on achieving the Millennium Development Goals (MDGs), and the Poverty Reduction Strategy

Thus in 2004, the average urban-rural gap at the national level was 25.4% in adult literacy rate (15+) and 15.4% in piped water supply compared to 29% and 35.8%, respectively in 1992. However, gaps continue, especially in poverty, female literacy and the acquisition of secondary or higher education, (Table 2.4 and Figure 2.4). An interesting observation is the increase in the gap between urban and rural areas with regard to Gini Coefficient, which has increased by more than 100% between 1992 and 2004. This implies that the income distribution is becoming more equal in rural areas, and at a faster pace, than in urban areas, although the gap in poverty incidence is becoming bigger between the two areas.

Figure 2.4: Urban-rural gaps in human development



Source: K. Abdel-Kader, Background Paper for the EHDR 2005

Egypt's rank in the HDR: revisiting the causes and proposing a remedy

The relatively high rate of illiteracy in Egypt comes second to high population growth as a reason why Egypt still ranks low in the global HDR. Unfortunately, Egypt is one of nine countries with the highest illiteracy rates in the world, and explains why illiteracy has been a pressing development issues in Egypt over the last three decades (see Table 2.1).

As shown in Table 2.5, the strong positive correlation between illiteracy and poverty is indisputable. It puts enormous pressure on the country's resources and hinders the development effort. If fertility, poverty reduction and illiteracy eradication are placed at a high priority on the national agenda, a first task is to deal with illiterates in the age group 15-40 years with special attention given to females in Upper Egypt, a region that has 47.8% and 63.7% of the total number of illiterates and poor respectively, (Table 2.3). Illiterates below 15 years of age need special programs to make them eligible to be enrolled in preparatory schools.

Knowing that 45% of the poor are illiterates and that the probability of an illiterate person becoming poor is 24% (World Bank 2004), the conclusion is that a plausible poverty reduction action plan should be universal in targeting the illiterates — wherever they may be found — to break the poverty cycle from one generation to the next. The community school model (UNICEF) and the one-room schools (MOE) have proved very successful and deserve scaling up.

▼

By virtue of proximity to local communities decentralized bodies are best suited to develop and implement programs

Box 2.1: Ten key recommendations of the UN millennium project

1. Developing country governments should adopt development strategies bold enough to meet the MDG targets for 2015. We term them MDG-based Poverty Reduction Strategies. To meet the 2015 deadline, we recommend that all countries have these strategies in place by 2006. Where Poverty Reduction Strategy Papers already exist, those should be aligned with the MDG;
2. The MDG-based Poverty Reduction Strategies should anchor the scaling up of public investments, capacity building, domestic resource mobilization, and official development assistance. They should also provide a framework for strengthening governance, promoting human rights, engaging civil society, and promoting the private sector.
3. Developing country governments should craft and implement the MDG-based Poverty Reduction Strategies in transparent and inclusive processes, working closely with civil society organizations, the domestic private sector, and international partners.
4. International donors should identify at least a dozen MDG 'fast-track' countries for a rapid scale-up of official development assistance (ODA) in 2005, recognizing that many countries are already in a position for a massive scale-up on the basis of their good governance and absorptive capacity.
5. Developed and developing countries should jointly launch, in 2005, a group of 'quick win' actions to save and improve millions of lives and to promote economic growth. They should also launch a massive effort to build expertise at the community level.
6. Developing country governments should align national strategies with such regional initiatives as the New Partnership for Africa's Development and the Caribbean Community (and Common Market), and regional groups should receive increased direct donor support for regional projects.
7. High-income countries should increase official development assistance from 0.25% of donor GNP in 2003 to around 0.44% in 2006 and 0.54% in 2015 to support the MDGs, particularly in low-income countries, with improved ODA quality (including aid that is harmonized, predictable, and largely in the form of grants-based budget support). Each donor should reach 0.7% by 2015 to support the goals and other development assistance priorities. Debt relief should be more extensive and generous.
8. High-income countries should open their markets to developing country exports through the Doha Trade Round and help Least Developed Countries raise export competitiveness through investments in critical trade-related infrastructure, including electricity, roads and ports. The Doha Development Agenda should be fulfilled and the Doha Round completed no later than 2006.
9. International donors should mobilize support for global scientific research and development to address special needs of the poor in the areas of health, agriculture, natural resource and environmental management, energy, and climate. We estimate the total needs to rise to approximately US$ 7 billion a year by 2015.
10. The UN Secretary-General and the UN Development Group should strengthen the coordination of UN agencies, funds and programs to support the MDGs, at headquarters and country level. The UN Country Team should be strengthened and should work closely with the international financial institutions to support the goals.

Source: UN Millennium Project (2005), 'Investing in Development: A Practical Plan to Achieve the Millennium Development Goals. ' New York.

▼ **The Millennium Development Goals represent the world's most supported development framework with quantified and time-bound targets**

Table 2.5 shows the most vulnerable governorates with regard to illiteracy and poverty. These have the highest overall illiteracy rates in Egypt, with rates ranging around 50%, and females are the hardest hit group. It also shows the strong positive correlation between illiteracy and poverty in Upper Egypt, and it is clear that high fertility rates are both a cause and a result of the two conjoined factors.

As articulated in Egypt's Poverty Reduction Action Plan, eliminating adult illiteracy and diminishing the unskilled population can be achieved by increasing access to well-designed and well-targeted 'Adult Learning Programs.' Adult learning is not only confined to basic alphabet literacy. Community learning in health, early childhood, agricultural improvement, environmental protection and skills training are all part of adult literacy in its wider sense. They are part of a process of 'lifelong learning' that also could include acquiring new skills to meet changing market demands (see Chapter Four).

By virtue of physical proximity to local communities and through a better understanding of local demands and needs, decentralized administrative bodies and NGOs, as well as civil society leaders are best suited to develop and implement programs aimed at increasing participation, enhancing capabilities and reducing poverty. As argued in this report, the media — in conjunction with the appropriate national ministries and bodies — has a large role to play in awareness-raising, health and contraception campaigns. Extended ICT facilities provide opportunities for distance learning in adult literacy and continued adult learning.

Education is a vehicle of behavioral change, second-chance education programs, and gender-related initiatives. With support from the private sector, the state could provide the necessary accompanying training components that meet the appropriate educational goals, the requirements of a market economy and reduced unemployment levels.

Table 2.6: Indicators of some MDGs and targets in the five geographic regions of Egypt

Health indicators	Urban Gover.	Urban Lower Egypt	Rural Lower Egypt	Urban Upper Egypt	Rural Upper Egypt	Total Egypt	Total 1990
IMR (2003)	26.3	33.4	44.3	45.1	58.3	38.0	68.0
U5M (2003)	33.5	40.8	52.5	56.3	73.4	45.7	85.0
MMR (2000)	48.0	93.0		89.0		84.0	174.0
% births attended by skilled health personnel (2003)	90.2	91.0	70.9	77.4	47.6	69.4	40.7
Contraceptive prevalence (2003)	68.5	66.3	64.8	59.8	44.7	60.0	47.6
Water and sanitation							
% H'holds with access to piped water in residence (2003)	99.3	98.7	75.2	97.1	71.5	86.1	-
% H'holds with water supply interrupted at least a few times/week (2003)	25.4	25.9	27.4	21.3	28.5	26.2	-
% H'holds in housing units connected to public sewer (2003)	96.6	90.0	35.1	56.4	4.1	53.6	-
Poverty indicators							
P0 (2000)	5.1	6.2	11.8	19.3	34.2	16.7	24.3
P1 (2000)	0.9	0.9	1.6	3.9	6.6	2.97	7.1
% not obtaining caloric requirement (2000)	-	10.7	11.4	18.3	19.1	14.0	-
Children under-weight (2003)	5.7	4.8	6.8	10.5	12.4	8.6	9.9
Net enrolment							
Age 6-15 (2003)	90.6	90.4	88.0	88.3	77.6	85.6	-
Male net enrolment	89.8	89.4	88.4	88.9	84.6	87.7	-
Female net enrolment	91.5	91.5	87.5	87.7	70.0	83.4	-
Unemployment							
Male (2001)	4.5	6.6	5.9	6.6	5.0	5.6	5.6
Female (2001)	17.7	26.2	23.5	26.4	18.9	22.6	14.4
Other							
% Women in non-agriculture-wage employment (2001)	22.6	22.2		14.6		20.6	-
% H'holds with no possibility of eviction (2003)	91.5	89.3	90.0	87.8	81.9	89.7	-
% H'holds dumping solid waste in street/canal/drainage (2003	8.7	28.6	49.6	26.6	51.1	34.6	-

Source: The Ministry of Planning and UNDP (2004), The Millennium Development Goals: Second Country Report, Egypt, Egypt Demographic and Health Survey (2003), Interim Report

▼ **The Millennium project team uses a global lens to diagnose the reasons for falling short of the MDGs, proposes strategies to achieve goals and a plan for financing**

2. Achieving the MDGs: An Egyptian Reading

The principal route to accelerate Egypt's progress and improve its ranking on the human development scale is to observe and exceed the minimal goals and targets of the Millennium Development Goals (MDGs) for 2015. The consensus is that GDP growth alone cannot increase welfare and that reducing capability poverty is the best approach to improving the 'human condition' of Egypt's people.

This section explores deficits in Egypt's pursuit of human development using the approach recommended by the UN Millennium Project, to arrive at a practical plan to achieve Egypt's MDGs. The approach provides insights into priority actions and the cost estimates for investment needs.

The value of this approach is threefold:

- it provides the international comparative benchmarks by which Egypt's strengths and weaknesses are identified;
- it emphasizes the pro-poor actions and interventions that can be borrowed for Egypt;
- it serves as a test and confirmation of the proposals of this EHDR report.

Thus, the exercise is only partial and its results are best used in conjunction with the broader and more comprehensive 'vision' which has been formulated by the entire EHDR 2005 team, and which is developed in the next chapters.

The Millennium Project

The Millennium Development Goals (MDGs), the outcome of the United Nations' 2000 Millennium Development Declaration, represent the world's most supported development framework with quantified and time-bound targets. The eight goals are a call for developing countries to achieve by 2015 a minimum level of development to join effectively the world's community.The MDGs are also an invitation for developed countries to provide support for developing countries in their quest for advancement through debt relief, generous financial aid and technical assistance.

Table 2.7: MDGs tracking indicators

Indicator			Level in 1990	Level in 2004	Target for 2015	Potential for achieving target
●	**Goal 1**	**Eradicate extreme poverty and hunger**				
	1	Percentage of population below $1 per day	8.2	0.94	4.1	Met
	1a	Percentage of population under national poverty line	24.3	20.2	12.1	Probable
	2	Poverty gap (using national poverty line)	7.1	3.9	3.6	Met
	3	Share of poorest quintile in national consumption		8.3		
	4	Prevalence of underweight children under 5	9.9[a]	8.6[b]	5.0	Possible
	5	Percentage of population below minimum level of dietary energy consumption	25.6[c]	14.0[d]	12.8	Possible
●	**Goal 2.**	**Achieve universal primary education**				
	6	Net enrolment ratio in primary education	85.5[e]	94.0[f]	100	Probable
	7	Percentage of pupils who reach grade 8	83.9[g]	86.8[h]	100	Probable
	8	Literacy rate of 15-24 years-olds	73[i]	87.0[f]	100	Probable
●	**Goal 3**	**Promote gender equality and empower women**				
	9a	Ratio of girls to boys in primary education	81.3[c]	90.9[j]	100	Probable
	9b	Ratio of girls to boys in secondary education	77.0[c]	104.3[j]	100	Met
	9c	Ratio of girls to boys in tertiary education (physical sciences)	51[e]	66.0[b]	100	Unlikely
	9d	Ratio of girls to boys in tertiary education (social sciences and humanities)	65[e]	99.0[b]	100	Met
	10	Ratio of literate women to men, 15-24 years old	84.7[i]	86.4[f]	100	Possible
	11	Share of women in wage employment in the non-agriculture sector	19.2	20.6[k]	50	Unlikely
	12a	Percentage of seats held by women in People's Council	4.0	2.6	50	Unlikely
	12a	Percentage of seats held by women in Consultative Assembly	4.0	8.0	50	Unlikely
●	**Goal 4**	**Reduce child mortality**				
	13	Under-five mortality rate	56.0	35.4[k]	18.7	Probable
	14	Infant mortality rate	37.8	28.2[k]	12.6	Possible
	15	Proportion of 12-23 months old children immunized against measles	81.5[a]	95.6[b]	100	Probable
●	**Goal 5**	**Improve maternal health**				
	16	Maternal mortality ratio	174[a]	67.6	43.5	Probable
	17	Proportion of births attended by skilled health personnel	40.7[a]	69.4[b]	100	Probable
●	**Goal 6**	**Combat HIV/AIDS, malaria and other diseases**				
	18	HIV prevalence among pregnant women aged 15-24 years	not available		0.0	
	19	Condom use rate among married women using contraceptives	4.2[a]	15[b]		
	20	Number of children orphaned by HIV/AIDS	not available			
	21	Prevalence of malaria		0.0	0.0	Met
	23	Incidence of tuberculosis	18.6	14.0[b]		
	24a	Proportion of tuberculosis cases detected under DOTS		58.0		
	24b.	Proportion of tuberculosis cases cured under DOTS		88.0		
●	**Goal 7**	**Ensure environmental sustainability**				
	25	Proportion of land area covered by forest				
	26	Ratio of area protected to maintain biological diversity to surface area	6.5	10.0	17.0	
	27	Energy use (metric ton unit equivalent) per $1000 GDP	3.9	6.3		
	28a	Carbon dioxide emission per capita	2.0l	3.1		
	28b	Consumption of ozone-depleting CFCs	2.144	1.335[k]		
	29	Proportion of population using solid fuels	not available			
	30a	Proportion of urban population with sustainable access to an improved water source	96.9[a]	100	98.5	Met
	30b	Proportion of rural population with sustainable access to an improved water source	61.1[a]	95	80.6	Met
	31a	Proportion of urban population with access to improved sanitation	94.7[a]	100	97.4	Met
	31b	Proportion of rural population with access to improved sanitation	..	..		
	32	Proportion of households with access to secure tenure	not available			
●	**Goal 8**	**Develop a global partnership for development**				
	47	Telephone lines and cellular subscribers per 100 population	8.3[l]	21.2[b]		
	48a	Personal computers in use per 100 population	1.2[l]	2.2[b]		
	48b	Internet users per 100 population	0.3[l]	3.9[b]		

a data for 1992 e data for 1995 i data for 1996
b data for 2003 f data for 2005 j data for 2002/03
c data for 1990/91 g data for 1991/92 k data for 2001
d data for 1999/2000 h data for 1992/93 l data for 1999

Source: Ministry of Planning (2005), Achieving the Millennium Development Goals: Success and Challenges

Environmental policies remain on the margin

In 2002, as a follow-up to the Declaration, the Secretary-General of the United Nations commissioned an independent advisory body to press forward more energetically with the Millennium Project (UN-MP). The project team used a global lens to diagnose the reasons for falling short of the MDGs, proposed strategies to achieve these goals at the country level, estimated by order of magnitude the related cost and suggested a plan for financing the developed strategies.

The ten key recommendations of the ensuing UN-MP report[1] are displayed in Box 2.1. With relatively minor adaptations, the suggested five

1. UN Millennium Project. 2005. 'Investing in Development: A Practical Plan to Achieve the Millennium Development Goals'. New York.

recommendations to developing countries and their concomitant strategies represent a common platform applicable to most developing countries.

Using the framework of the UN-MP report, this section presents an overview of the status of MDGs in Egypt, examining why Egypt has, in some cases, fallen short of the goals, and attempts to contextualize the key recommendations to adapt to Egypt specific conditions.

What the indicators tell us

Egypt's Second Country Report (2004) on the Millennium Development Goals[2] revealed a significant level of variation with regard to the status of the different MDGs in Egypt (Table 2.6). At the national level, the report praised the fast and sustained pace toward achieving the goals related to water and sanitation, infant and child mortality, and maternal mortality.

Although considered 'on track' with regard to these goals, 25% to 30% of Egyptian households in rural areas still do not have access to piped water in residence, and urban/rural as well as Lower/Upper Egypt differences in access to public sewage are striking (90-97% access in the urban governorates and urban Lower Egypt, 56% access in urban Upper Egypt, 35% access in rural Lower Egypt. The estimated level of infant mortality in rural Upper Egypt in 2015 (30/1000 live births) will remain higher than the national target expected to be attained. The national target for infant mortality in 2015 (25/1000 live births) has already been achieved since 2002 in Syria, Jordan, Tunisia, Sri Lanka, Thailand, Ecuador and Mexico. The national target level of maternal mortality ratio (43/100 thousand live births) expected to be achieved by 2015 is higher than the current level in Jordan, Malaysia and Costa Rica.

The slow progress in those indicators of women's empowerment calls urgently for more attention to increasing female enrolment at the different stages of education and female wage employment, and raising the current dismal levels of political participation of women. In addition, environmental policies remain at the margin, and this is reflected in a constrained Ministry of Environment, and weak law enforcement capabilities.

Additionally, the challenge is for housing policies to receive the attention they deserve in the context of economic growth, employment and poverty reduction, empowering the poor by raising their living environment and conditions.

In education, Egypt's Second Country Report (2004) indicates that adult illiteracy and illiteracy among youth in the age group 15-24 will be difficult to eliminate by 2015. The significant regional differences in the levels of enrolment in basic education are likely to substantially hamper efforts to achieve universal enrolment by 2015. In addition, the poor quality of pre-university and university education and the related inadequate acquisition of the appropriate skills threaten the potential for scientific and technological progress and innovation and the development of the qualified labor force necessary to drive and sustain high economic growth.

Making-up for lost MDG opportunities

The war on poverty

Poverty continues to exist in Egypt, in some regions and in dispersed pockets within others. Making-up for the lost time and opportunities requires a clear vision of what needs to be accomplished — backed-up by the means to enhance the potential for success. Operationalizing this vision translates into a comprehensive set of practical solutions to achieve the desired goals. A strong commitment to rapid scaling-up is a necessary intermediary condition for success.

A vision for Egypt

Interest in the MDGs as a focused program to address the needs of the poor is not just confined to the achievement of the goals at the national level. Averaging out successes and failures of national figures tends to iron out important variations and differences, successes and failures, at the regional and governorate levels. The ambition must be to take into account the manifestations of disenfranchisement as they articulate themselves variously in diverse regions and contexts under the assorted headings of inadequate income to meet basic needs, lack of access to essential infrastructure, social and political exclusion, gender disparity, educational and technological poverty, and environmental degradation.[3]

▼

MDGs are ends in themselves to those in extreme poverty, but for other groups, a lower boundary line of what needs to be accomplished.

2. The Ministry of Planning and UNDP (2004). 'Millennium Development Goals, Second Country Report'. Arab Republic of Egypt.
3. UN Millennium Project (2005), op.cit.

However, it must be remembered that the MDGs, which, in the short-term, are ends in themselves to those in extreme poverty, represent for other groups a lower boundary line of what needs to be accomplished. For these segments, they are just the first landmark on the road to greater growth and development. MDG goals as well as the national potential for success in achieving them should extend well beyond the MDGs.

The question then, is not about if or how close Egypt can come to achieve the goals given the current constraints. The question indeed should be: how far Egypt can reach beyond the MDGs if the proper political context prevails, the correct sequence of investments and policies is applied and the financial and technical constraints are reduced to their potential minimum.

The aim is to channel national resources to social groups and geographic regions in need, to push them above the threshold necessary for sustained growth

Egypt is a middle-income country and as such is not identified as trapped in poverty. Using international standards, the national level of poverty in Egypt is considered to be moderate and so is the level of disparity in the distribution of income/expenditures. These features might provide sufficient justification to a 'pockets of poverty' approach.

Within a national economy, 'pockets of poverty' define a situation strongly related to social exclusion, income disparities, proliferation of urban slums and the existence, even small, of absolute extreme poverty. Indeed, this may be a proper approach in Egypt — but only partly — when addressing urban poverty in slum areas on the peripheries of large metropolitan regions. There remains rural poverty.

At the level of the main five sub-national regions, the differences in economic growth are extremely large indicating that growth is centered in northern Egypt leaving the south lagging behind. During 1994-2000, per capita GDP in metropolitan regions grew by a phenomenal 8.9% a year compared to a modest 5% in Lower Egypt and a dismaying level of 0.5% in Upper Egypt. The estimated real GDP per capita (PPP$) in 1998-99 was US$7857, 3974 and US$3191 in metropolitan areas, Lower Egypt and Upper Egypt respectively.[4] Not surprisingly, overall poverty declined during the second half of the 1990s while regional differences in poverty levels remained significant.

Regional differences in poverty manifested themselves in the following:

- In all five main geographic regions in Egypt, less than 1% of the population spends less than PPP US$1 a day. On the other hand, the proportion spending less than PPP US$2 a day varies significantly from a low of 5% in metropolitan areas to a high of 50% in rural Upper Egypt.[5]
- While less than 3% of the Egyptian population are identified as ultra poor (not able to obtain their basic food requirements even if they spend all their expenditures on food only) more than 7% of the population in rural Upper Egypt are identified as ultra poor.
- The percentage of those unable to obtain their daily caloric requirements in Upper Egypt is twice the prevailing level in Lower Egypt while the incidence does not exist in metropolitan areas (Table 2.1).

The emerging regional divide emphasizes a success story, in Lower Egypt in particular, and underscores a substantive failure and an alarming situation in Upper Egypt. Not only is the incidence of poverty in Upper Egypt significantly higher than the other regions, but it is also the deepest, i.e. the least sensitive to changes to growth and changes in consumption levels.

Poverty and growth differentials can be explained in terms of differential access to education, health and public services. Indicators of gender equality, access to education services, child health, maternal health, availability of the basic infrastructure and access to it, the state of the surrounding environment and insecurity arising from the possibility of eviction are all not in favor of Upper Egypt (Table 2.6).

At the national level and in all sub-national regions, higher levels of education correlate negatively with the incidence of poverty. The only exception is Upper Egypt whereby the incidence of poverty (in both urban and rural areas) does not decline — in fact it increases — among individuals who have basic education compared to

4. Ibid.
5. The Ministry of Planning and UNDP (2004), op.cit.

those who can only read and write. Controlling for education attainment, the incidence of poverty remains higher in rural Upper Egypt than all other regions as it stagnates at a relatively high level around 20% even beyond the secondary level.[6]

In rural Upper Egypt, the lower overall growth, slower rates of job creation, less representation of employment in manufacturing, and higher population growth, are all possible explanations for the observed discrepancy between Lower and Upper Egypt. However, these explanations are in turn linked to differentials in agriculture productivity and agriculture labor returns in the two regions, the proximity of rural Lower Egypt to metropolitan areas where growth is driven by construction and manufacturing centers, and allocating to Upper Egypt a share of the investment budget that is unduly below its population share.[7]

The problem of Upper Egypt goes beyond simply 'pockets of poverty.' Two-thirds of the poor in Egypt whose expenditures are insufficient to meet their basic food and non-food needs are in Upper Egypt, a region that stretches over 900 kms and accommodates 36% of the total population who have the least access to the basic infrastructure and social services. Upper Egypt is trapped in poverty that is deepened by the prevailing demography, with all the implications concomitant to this identification including the urgent need for measures bold enough to break out of this trap.

Development efforts and public investments need to be directed to the bottom half of the population, mainly in Upper Egypt (in all its governorates) and in urban slums on the peripheries of as well as inside metropolitan areas. The significant increase in public investments in these locations is not only intended to empower poor people and meet their critical needs.

Equally important is the need to provide the tools with which they can develop their capabilities, as well as the environment for growth, so as to 'trigger' a rise in private investments that is presently held back by the lack in infrastructure, effective service delivery and the absence of a healthy and skilled labor force.'[8]

In Upper Egypt, MDG-based investments should aim at:

- reducing income poverty in rural Upper Egypt through increasing food productivity of smallholder farmers, getting their farm products to markets, and expanding income-generating opportunities for the rural landless;
- improving living conditions of the rural population in Upper Egypt by expanding rural access to the basic infrastructure;
- ensuring universal access to a well-functioning health system with a strong reproductive health component, and to interventions known to prevent and treat the majority of health conditions affecting people, particularly poor;
- ensuring universal enrolment and completion of basic education, greatly expanded access to secondary education and acquisition of marketable skills for twenty-first century jobs.

Nationwide, MDG-based investments aim to:

- overcome pervasive gender bias;
- promote vibrant urban centers and improve living conditions of slum dwellers;
- emphasize environmental sustainability;
- build national capacities in science, technology and innovation.

The practical solutions[9]

The technology and the solutions do exist to alleviate poverty and improve the livelihood of the vast majority of the population. However, these solutions need to be adopted and applied at scale (upwards for Upper Egypt, for example). The purpose is to encourage substantial reallocation of labor from agriculture to services and industry where productivity and incomes are higher and more stable but which need to increase productivity within sector by increasing the level of human capital.

Quick win interventions

- developing and implementing a comprehensive program to improve land yields through a combination of recommended agricultural inputs: fertilizers (compatible to international standards and approved in potential export markets), improving small-scale

The commitment of the highest political authority to move toward administrative and fiscal decentralization is a step in the right direction

6. UN Millennium Project (2005), op.cit.,
7. Ibid.
8. Ibid.
9. The interventions presented in the UN-MP report are sifted to exclude those irrelevant to Egypt, and then amended by some interventions appropriate to Egypt's context.

water management, post-harvest storage, crop varieties, and livestock breeds;
- strengthening extension services though training and using participatory techniques;
- providing monetary subsidies for small farmers (defined as holders of less than a pre-designated small landholding) to finance the recommended agricultural inputs;
- elimination of user fees for basic health services (regardless of how nominal they are);
- upgrading and increasing relevance of the school health insurance services in Upper Egypt (for example de-worming and iron-supplementation);
- support the role of households in producing health by delivering home-based and school-based awareness and behavior change interventions implemented by community health workers. Issues covered include reproductive health, nutrition and child feeding practices, hygiene, sanitation infrastructure and improved management of water and solid waste;
- abolishing school fees, providing school meals, school uniforms, stationary, and textbooks;
- a special two-year program on school premises after regular school hours to enroll out-of school children 11-14 years old, and facilitate their transition to third primary and their continuation thereafter.

▼ **Good infrastructure combined with industrial parks and/or export processing zones attracts domestic and foreign investments necessary for job creation**

Other solutions for Upper Egypt

- strengthening economic linkages between rural areas and the potential markets for farmers' products and inputs inside and outside of Egypt; enhancing rural credit and saving services and encouraging investments in building storage facilities; supporting networks of agro-dealers, and empowering farmers' associations to negotiate with market intermediaries (in particular those involved in agro-exports);
- existing infrastructure should be utilized to its full; i.e. the three airports in Assiut, Luxor and Aswan and the highway connecting the governorate of Qena to seaports located on the Red Sea. However, this requires improved local transport infrastructure, and major investments in the construction of local roads, lowering entry costs into the transport market, providing access to credit, and improving the supply of low-cost vehicles;
- illiteracy programs for adults in targeted communities should have community-related built-in training components. These interventions increase the skills needed to expand labor opportunities for off-the-farm economic activities in rural and semi-urban areas. Local communities should participate in the development of the training components and local NGOs should be involved in the implementation of programs that increase access to productive resources and market opportunities;
- adding to the academic curriculum of basic education a technical skill/training component specific to the local community to help open doors in the labor market for those who will not continue beyond this stage of education; transformation of some commercial secondary schools to general/agricultural/or industrial schools based on community needs, development of the curriculum of vocational secondary education with special focus on relevant agro-industrial applications, and avail credit to graduates of secondary education;
- measures to ensure access to quality basic education for children from poor households which also encompass school construction in deprived and high population density communities, supporting private low-cost and non-profit certified pre-schools run by local NGOs, mobilization of households with eligible children 6-10 years old and supporting them with enrolment procedures of their children (in first primary);
- investments in the maintenance and upgrading of existing schools, particularly in relation to technology and science supplies and sanitary facilities; training of teachers and administrators in relation to curriculum-development in terms of content, pedagogy and evaluation; offer attractive packages for master teachers from other communities to serve as models and trainers, and instituting a functional and meaningful system of incentives for administrators and teachers (see Chapter Four);

- a public university has been established in almost every governorate in Upper Egypt. The technology-based infrastructure of these universities needs to be enhanced. Training of local staff and supporting visiting scholars' programs with high-tech universities and research centers abroad is necessary. Funds are needed to attract and retain high-caliber Egyptian academics for a strong national scientific and technological base;
- improving effective access to water supply and sanitation is an end in itself. In addition, basic infrastructure is a prerequisite that paves the way for setting up the infrastructure to provide schools, clinics, hospitals and other community facilities with low-cost uninterrupted supply of electricity, clean water and sanitation;
- investments are necessary for maintaining the health infrastructure and to ensure adequate supply of essential drugs, clinic and lab facilities, competent and motivated staff (through training, adequate salaries, and appropriate performance rewards), and for removing the current bias in the distribution of trained health workers in favor of urban areas that is aggravating the situation in rural Upper Egypt in particular;
- good infrastructure combined with the designation of industrial parks and/or export processing zones for private sector development attracts domestic and foreign investments, which is necessary for large-scale job creation, to supplement that from SMEs. Again, the invaluable infrastructure in Upper Egypt represented by the three airports and highways that can link prospective industrial areas to seaports on the Red Sea should be utilized to its full potential.

Achieving nationwide goals

At the national level, three major areas of intervention are proposed, namely slum upgrading, strengthening environment protection and measures to eliminate gender inequality:

Slum upgrade

- upgrade slums to improve the living conditions of the slum dwellers: water supply, sanitation, efficient low-cost mass transit systems as well as systems for solid waste disposal, street lighting, policing and security, and energy services are all critical for improving the lives of slum dwellers. These infrastructure expansions should take precedence over education and health services as research findings about the wellbeing of slum dwellers in Egypt have consistently shown, that by virtue of physical proximity, no significant differences in most indicators of education and health service utilization exist between slum dwellers and the rest of the urban residents. In other words, they manage to reach and make use of nearby education and health services; however, the basic infrastructure has to come to them to introduce substantive improvements to the quality of their lives;
- improving security of tenure is central to improving the lives of slum dwellers, which requires legislative reforms of tenure and land-use and prevention of eviction;
- equally important is providing alternatives to slum formation by making land available to the poor at affordable prices and ensuring the provision of infrastructure, and transport services at the fringes of cities and establishing clear regulatory standards regarding minimum plot sizes, etc.

The shortage of trained workers and managers is a serious binding constraint on scaling-up services

Environmental protection

- provide political support to environmental bodies and institutions to integrate environmental strategies into all sectoral policies, impart technical support to ensure the development of sector strategies, and consider adaptations to climate change in agricultural practices, climate modeling and projections of the impact of rising sea levels, particularly in Lower Egypt;
- development and implementation of pollution control standards and of effective regulation of industrial water and air pollution, solid waste disposal using well-designed landfills, waste water and sewage treatment;
- carry out strategic environmental impact assessments for large-scale infrastructure projects and other development strategies that are likely to have a major impact on the environment;

Table 2.8: Estimates of MDG-based capital investment needs and operating expenditures (2003 US$ per capita annually)[1]

Estimates of MDGs investment needs	Bangladesh, Cambodia, Ghana, Tanzania, Uganda			India, average during 2005-2015
	2006	2010	2015	
Hunger	2-4	4-7	8-14	..
Education	11-17	13-19	17-25	..
Gender equality	2	3	3	..
Health	13-25	19-33	30-44	..
Water supply and sanitation	2-6	3-7	6-12	..
Slum upgrading	2-3	2-3	3-4	..
Energy	6-20	10-19	18-23	..
Roads[2]	11-13	10-21	10-31	..
Other[3]	8	9	13	..
Total	71-80	94-111	124-161	113

1. In addition to direct investments on the ground, meeting the goals also requires capacity building, debt relief, additional early support for the Quick Win interventions, enhanced support for regional collaboration and inf rastructure, global research and emergency assistance, the costs of which are not included in the estimates.
2. Transport needs assessment includes only the cost of maintaining and expanding road networks. It excludes the cost of improving access to transport services as well as the cost of expanding transport infrastructure.
3. Refers to MDG interventions not included in the costing exercise due to lack of data (higher education, scientific research, environmental sustainability...).

Source: UN Millennium Project Report, 244-245

▼ **In Egypt, a detailed MDG costing will have to be made**

- better dissemination and use of existing environmental assessments and monitoring systems at national and local levels; local universities and research centers need to become more entrepreneurial and oriented toward key development challenges in agriculture, industry, the environment and public health; promoting business opportunities in science and technology by focusing on platform technologies that have broad applications in the economy such as information and communication technologies, biotechnology and new materials.

Commitment to a rapid scaling-up

The implementation challenge to reduce current as well as potential poverty, achieve the MDGs and beyond has two main aspects:

1. the range of interventions to be implemented simultaneously to achieve the goal;
2. the need to reach large parts of the population to have a measurable impact on national outcomes. Scaling-up is the process of bringing essential services to the majority of the population quickly, equitably and lastingly. Unlike the conceptualization and planning phases, scaling-up is a process of experimentation that requires close monitoring and careful mid-course corrections during implementation.[10]

Timeframe. A 10-year framework for action to implement the suggested practical solutions should guide rapid scaling-up. Development of a 3-5 year poverty reduction action strategy — that is, a more detailed operational document linked to a medium term expenditure framework — is essential for close monitoring of progress and for directing the scale-up process.

Investments. Sequencing investments is a critical feature as well in relation to scaling-up. The start should be where the need is greatest, or where investments can have the greatest immediate impact. Early investments should include the package of the quick-win programs, all outreach interventions encouraging behavior change in the population that can in principle be scaled-up immediately, and the needed investments in infrastructure, human resources, management and statistical systems.

Training. The shortage of trained workers and managers is a serious binding constraint on scaling-up services. Human resource needs across sectors will have to be assessed and recruitment and retention strategies created. Retention packages should reward high performance and include concrete incentives for service in rural areas, and in Upper Egypt. Rapid scaling-up can also benefit a great deal from the development of replicable and locally appropriate delivery mechanisms.

Coordination. By definition, achieving the MDGs and beyond requires setting plans and implementing programs that cut across all ministries. Intermediary and coordinating institutions and bodies such as the National Council for Childhood and Motherhood, the National Council for Women and the National Council for Human Rights can play a major role in this regard.

Each of these institutions and within its mandates provides an invaluable mechanism for monitoring progress and advocating for rapid scaling-up. However, having a less official/governmental status and becoming independent consortiums representing civil society organizations (each according to its mandates) would enhance their performance and efficacy.

10. UN Millennium Project (2005), op.cit.

The cost of achieving the MDGs

In Egypt, a detailed costing will have to be done. The costing exercise should cover the needs to achieve the MDG targets — or the country-specific targets if more ambitious than the MDGs — up to the year 2015. To decide on the phases of the overall action plan to meet these targets, the start should be from 2015 working back to 2006.

The first phase of the overall action plan comprises a short-term poverty reduction strategy (2006-2008) having its own partial set of the end targets and related cost. Development, implementation and evaluation of the poverty reduction strategy will provide the means for updating, with experience and new information, the overall action plan and the estimated costs. The aim is to optimize current public expenditures in parallel with scaling-up of investments.

The UN-MP[11] carried out a preliminary MDGs needs assessment in five low-income countries: Bangladesh, Cambodia, Ghana, Tanzania and Uganda. Findings of this exercise were supported by the preliminary results of the MDGs needs assessment conducted by the country team in Tajikistan and by the Indian Institute of Management in Ahmedabad (findings restricted to three Indian states only). The main results of all these needs assessment efforts are displayed in Table 2.8. Estimates are meant to give guidance on the overall volume of resources needed to achieve the goals. Acceleration of the scaling-up of MDGs investments underscores the rising annual per capita cost between 2006 and 2015.

The low variation in absolute values of MDG investment needs per capita across countries is quite noticeable. As explained in the report, the interpretation for such relative consistency lies basically in the fact that some unit costs are independent of per capita GDP and, in countries with high current coverage, a reduced need for additional capital investments to meet goals is partially offset by high current operating costs.[12]

Based upon the estimates presented in the UN-MP report (which may need to be modified in the case of a low-middle-income country like Egypt), the cross-country consistency of results provides a satisfactory means to assess whether the poverty reduction strategy and the national budget in Egypt are both consistent with the MDGs (Table 2.8). In 2005/06 total government resource mobilization to meet basic MDGs investments in Egypt[13] should amount to a total of US$5.1 to 5.8 billion[14] (the equivalent of LE34 billion or 9-10% of the GDP). The annual amounts are:

- LE1.3 billion committed to reduce hunger and extreme poverty ($2-4 per capita);
- Excluding the cost of capacity building, around LE10 billion should have been allocated to capital investments and operating costs of basic education only to move toward universal access ($11-17 per capita);
- the gender component needs are estimated at LE0.8 billion ($2 per capita);
- LE10 billion should be earmarked to efforts aiming at increasing access to free primary health care services ($13-25 per capita);
- LE5 billion to expand the roads networks — main, district and local roads ($11-13 per capita);
- LE1.3 billion to improve the livelihood of slum dwellers ($2-3 per capita);
- LE5.6 billion for the operating costs of universal access to electricity and improved access to liquid fuels and cooking fuels ($6-20 per capita).

By 2015, the estimate rises from US$71-80 to US$120-160 per capita which would be required annually to meet the MDG investments needs. In the case of Egypt and assuming a total projected population of 85 million, this translates into a significant annual US$12 billion. In the case of Egypt, the bulk allocated to education and health would go towards abolishing fees and improving salaries. AS to water and sanitation, the EHDR vision is far more ambitious than the MDGs (see Chapter Nine).

Financing the plan to achieve the MDGs

The cost of achieving the MDG goals is affordable through the mobilization of national resources and the international commitment to official development assistance. Increased national financing of MDG-based investments necessitates rationalizing and enhancing the efficiency and effectiveness of current public spending, as well as redirecting part

Foreign aid is needed to finance the gap between the scaled-up MDGs and national domestic resources

11. Ibid, Box 17.2, page 242.
12. UN Millennium Project (2005), op.cit.
13. See footnote 12.
14. 2003 in US$.

of this public spending where it is most needed. Systems of financial accountability have to be significantly improved. Incidents of unjustified and improvident public spending should firmly be penalized while experiences related to prudent costing and efficient spending ought to be publicly disseminated, replicated and rewarded.

In the context of poverty reduction and promotion of equity, decentralization provides the proper setting for mobilization of additional funds (through local tax collection), improved allocation of resources and better targeting. As has been highlighted in EHDR 2004,[15] this can be realized by identifying a minimum package of quality basic public services to be sustained financially by the GOE — uniformly in all sub-national regions down to the smallest local units.

▼ Basic conditions of stability and good governance are necessary for development efforts to accomplish their goals

The gap between this minimum package and the 'National Standards'[16] should be publicly financed only discriminately according to an HDI mapping with a clear focus on impoverished locations lacking sufficient local resources to fill in the gap on their own (through local tax collection). The aim is to channel the vast majority of available national resources to social groups and geographic regions in need of a strong push that takes them above the threshold necessary for sustained economic growth and help them 'graduate' from central government assistance to join other more developed local regions in co-financing the MDG investments. However, mobilized national resources may still fall short of the levels required to pursue this scenario.

Al-Zakat and *Al-Oshour* both represent potential sources for voluntary co-financing of some of the MDG-based interventions, particularly the 'quick wins,' if these interventions are adequately publicized and organized by the Ministry of Awkaf. These charitable resources can be directed to fund a coupons system utilized to pay for the school fees, school uniform, stationary, and school meals of all children enrolled in public schools in the most disadvantaged local areas of rural Upper Egypt. They can also be utilized for funding coupons to subsidize agricultural inputs for smallholder farmers in impoverished local communities, and for other such purposes.

With all efforts to maximize the mobilization of national resources available, official development assistance (ODA) to support MDG priority investments will have to increase. Foreign aid is needed to finance the gap between the requirements for the scaled-up MDG investments and national domestic resources mobilized. Aid should prove to be effective when combined with good national policies and if targeted to support investments on the ground — in infrastructure and human capital — to pave the way for private sector growth.

ODA needs to be provided in the form of sector-wide budget support well targeted to enhance scaling-up of MDG-based poverty reduction strategies without making the distinction between investments and operating costs. ODA is needed to finance capacity building for the goals and to counteract the negative impact of freezing salaries and employment in the public sector that may stand in the way of extending the coverage and improving the delivery of public services. ODA in the form of debt relief and grants to finance loan repayments should be linked to re-channeling these additional resources to MDG-based investments.[17]

The point to emphasize is the need to substitute intensified foreign aid over the coming 10 years in place of aid in small amounts continuing for many more decades to come. The premise is to push national investments well beyond the threshold needed to accelerate and sustain a high level of economic growth that warrantee an earlier 'national graduation' from receiving ODA.

Requirements other than funding

At the country level, funding is not the only obstacle to achieve the MDGs. The political framework to achieve the goals is equally important. This involves commitment to the cause of development, a strong will to achieve the goals, and credibility in adhering to good governance.

The declared commitments of the government of Egypt and concomitant actions taken are, at least in principle, in line with the MDGs. The government of Egypt has continuously expressed explicit commitment to improve the livelihood of the population in general and of low-income groups in

15. The Institute for National Planning and UNDP (2004), 'Egypt Human Development Report: Choosing Decentralization for Good Governance' Egypt.
16. Whether equivalent to the MDG-based standards or extend even beyond.
17. UN Millennium Project (2005), op.cit.

Box 2.2: The role of volunteerism in achieving the MDGs

Achieving the Millennium Development Goals (MDGs) will require the ingenuity, solidarity and creativity of millions of ordinary people through voluntary action. Volunteerism in its many form - including service volunteering, advocacy and campaigning, and mutual aid - is a vital part of the development processes. The common factor shared by citizens who volunteer their time is a commitment to the common good, and their contributions to the well-being of society, both economic and social, are enormous if still largely unmeasured in the case of Egypt. Neglecting to factor volunteering into the design and implementation of policies means overlooking a valuable asset and may even undermine the traditions of cooperation that bind communities together. On the other hand, a strategic approach to harnessing this resource for national development should assist considerably in the task of attaining many of the MDG targets.

While volunteerism has been recognized and celebrated in Egypt on occasions such as International Volunteer Day on 5 December, such recognition does not extend to the inclusion of support for voluntary action in specific policies and programmes. Exclusion from meaningful and adequately supported opportunities to volunteer follows other exclusionary patterns in Egyptian society. Actions that could be taken to fully draw upon volunteerism for the achievement of the MDGs in the country include:

1. setting-up national and local volunteer schemes - with supportive national legislation - that take into account the special needs of disadvantaged segments of the population such as women, youth or the population of Upper Egypt;
2. encouraging research on the characteristics and trends in volunteerism in Egypt, as well as its economic contribution, to provide a fund basis on which to develop policy guidelines for its promotion;
3. intensifying promotional work, disseminating information about the rich diversity of voluntary action and the systematic connection between volunteerism and mainstream development, in particular between volunteerism and the MDGs as concepts and how, in practical terms, they improve quality of life;
4. Promoting - through incentives - employer and employee volunteer schemes as part of corporate responsibility in the private sector.

Examples of volunteer work to achieve the MDGs in Egypt


Enabling local associations of farmers, fishermen and cattle raisers to share good practices on production methods, resources management and disease control.


Assisting development partners, school and communities in strategies to promote girls' education.


Lobbying policy makers and the media for women's rights. Coordinating between government and civil society working on FGM issue.


Training traditional birth attendants and midwifes on basic child delivery techniques and hygiene.


Expanding the outreach of medical care such as through mobile medical units.


Informing people at risk of contracting HIV/AIDS through prevention programmes youth seminars and culturally sensitive public debates.


Encouraging the participation of volunteer organizations and local associations in the protection of biodiversity.


Promoting, through private sector networks, the spread of good practices on corporate partnership for community development.

Source: Eva Oterao and Yasmine Mahmoud, UN Volunteer Program

particular. This commitment translated into the main goals of the state's fifth Five-Year Plan (2002-2007) as follows:

- achieving a high and sustained GDP growth and the gradual elimination of the deficit in the balance of payments;
- alleviation of poverty and attenuation of income disparities;
- development of human capital and attainment of full employment;
- improvement of social services;
- steady reduction of current population growth rate;
- conservation of natural resources and directing urban growth to desert land.

The strategies outlined to realize these goals emphasized gender equality, elimination of adult illiteracy and achievement of universal primary education, improvement of family planning and reproductive health services, and support for childcare through the provision of adequate and high quality health services to all children.[18]

Despite the declared commitments and the significant resources actually mobilized and allocated, the results are sometimes below expectations. It is critical to emphasize that mobilization of the necessary funds is not all that matters. Where and how these funds are expended, the efficiency of utilization of the mobilized funds and

▼ **Where and how funds are expended are legimate concerns for the achievement of MDGs**

18. The Ministry of Planning (2002), 'The Fifth-Five Year Plan for Socioeconomic Development 2002-2007', Egypt.

estimates of available or potential funds that were either not mobilized at all or unduly channeled away from the MDGs investments are all legitimate concerns to be considered.

The overall weak performance of public systems in Egypt is quite evident; undermining most well -intended and even well-funded development initiatives that usually extend beyond the time frame originally set, and achieving their goals only partially and inefficiently. A serious reform is urgently needed in the area of public administration, aiming at an efficient management system run by qualified and motivated administrators that are adequately paid.[19]

The reform should cut across financial systems, reporting and accountability structures, data and information systems, training needs and appropriate incentives. Moreover, a supportive political framework ensuring the basic necessary conditions of stability and committed to good governance is an essential condition for development efforts to accomplish their goals. This entails predictability of government behavior, transparency in government functioning, pursuit of sound policies, respect for human rights and the rule of law, and equality for all social groups.[20]

▼ **Because the MDGs are mutually reinforcing, success in meeting the goals will have positive impacts on gender equality**

EHDR 2004 pinpointed the numerous manifestations of poor governance in the Egyptian context, the most obvious being the lack of accountability of public service providers to the recipients at all levels and in all sectors.[21] Local authorities have little if any authority over matters of relevance to local communities. Elected popular councils do not have the right to interpolate, but only to notify the governor of urgent matters.

Governors, first undersecretaries of different directorates and village heads are all appointed by and report to the central government and not to their local communities and elected representatives. The Emergency Laws have been in effect for 25 years. The restrictive laws defining the entitlements and regulating the activities of NGOs, workers' unions and professional syndicates hamper active participation of civil society organizations in decision-making, planning, monitoring and implementing programs.

The recent stated commitment of the highest political authority and the government to move gradually toward administrative and fiscal decentralization is certainly a move in the right direction. The invitation extended to local communities and civil society to join forces with the government to strengthen and speed up development efforts is equally important and commendable, but only if this collaboration truly extends beyond the mere mobilization of resources and making financial contributions.

Relevance of public policies and investments to the needs perceived by the people cannot be ensured without the effective involvement of civil society organizations — including those representing poor people — in national decision-making, and supporting their efforts in watching over the development and implementation of government policies. This would require legislative reforms redefining a more balanced relationship between the government and civil society organizations, and expanding their mandates and scope of work.

3. A Particular Concern: The Issue of Gender Discrimination

Gender indicators

At the national level

Indicators measuring male-female gaps in education and participation in the labor force, Egypt seems to be moving slowly towards eliminating gender disparities. There appears to be a degree of societal responsiveness to the paradigm of gender equality. Overall, female-male gaps have decreased since the early 1990s as expressed in terms of females as percentage of males, and as shown in Table 2.9.

At the regional level

From regional perspective, the gender gap is much wider in Upper Egypt and the group of frontier governorates than it is in the other parts of Egypt with respect to literacy (15+), school enrolment, and labor force participation as shown in Table 2.9. However, gender gaps have been narrowing at a slower pace in the urban governorates than in other regions. This may imply a catch up effect as the group of urban

19. UN Millennium Project (2005), op.cit.
20. UN Millennium Project (2005), op.cit.21. Ibid.
21. Ibid

governorates has had much better initial human development conditions than its other regional and rural counterparts.

The gender gap

In spite of substantial improvements in female literacy rates, enrolment rates, labor force participation, and unemployment, there remains a gender gap in favor of males. Nonetheless, female life expectancy is 6.4% higher than that of males whereas the gap in literacy rate has narrowed down from 43% in 1992 to only 31.7% in 2004. Female enrolment rates have been rising faster than those of males. This could be attributed to the fact that school dropout rates for males are higher than females (EHDR 2003).

Egypt ranks poorly on gender empowerment

Despite some relative successes, Egypt's rank on gender empowerment in the UNDP's Human Development Report 2004, was at a very low 75 out of 78 countries at a GEM value as low as 0,266 compared to 0.908 for Norway which occupied highest rank. Nominally more conservative countries such as Bahrain ranked eleven points higher at 66 with a GEM value of 0.395.

In the report's Gender-Related Development Index (GDI), for 144 countries, Egypt was 99th with a GDI value of 0.634, and in an international study that measured the global gender gap of 58 countries (World Economic Forum 2005), Egypt came last, with a rank of 58th out of 58.

Measuring gender empowerment

There are five main criteria to measure gender empowerment, drawn from the findings of the United Nations Development Fund for Women (UNIFEM). These are:

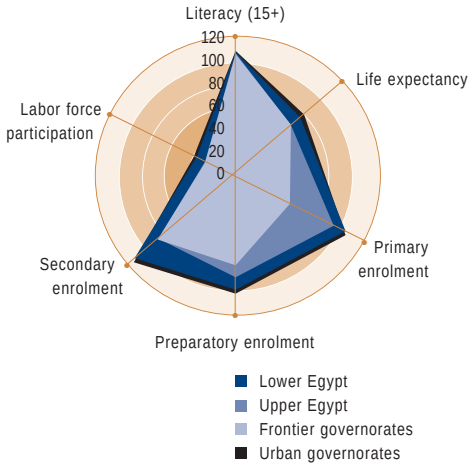
Economic participation. This covers the number of women in the workforce and the remuneration they receive (for equal work to men). According to official indicators, women's participation in the labor force increased from 18% in 1996 to 31.4% in 2004. Females represent 23.9% of the labor force (15+) and the female unemployment rate was 24% in 2004. The shrinking role of the public sector as a traditional employer of women has created unemployment and women resort to

Table 2.9: Female-male gaps (in terms of females as percentage of males)

Indicator	Year	Urban Gov.	Lower Egypt	Upper Egypt	Frontier Gov.	Egypt
Life expectancy	1991	104.0	104.0	102.0	104.0	103.0
	2004	106.5	108.5	106.7	106.8	106.4
Literacy (15+)	1992	75.0	52.0	48.0	54.0	57.0
	2004	75.2	68.5	63.0	63.3	68.3
Primary enrolment	1992	93.0	85.1	68.5	76.8	80.4
	2004	101.5	101.1	90.7	79.3	95.9
Preparatory enrolment	1992	97.7	85.0	62.8	70.5	79.0
	2004	96.4	94.7	87.9	78.9	92.2
Secondary enrolment	1992	108.2	94.5	63.5	77.0	86.0
	2004	110.9	107.0	84.9	86.1	99.3
Labor force participation	1996	25.3	33.7	26.4	28.7	29.2
	2004	30.3	37.6	24.0	27.5	31.4

Source: Egypt Human Development Report, various issues

Figure 2.5: Gender gaps on the regional level



Source: Egypt Human Development Report, various issues

low productivity activities outside the formal sector, primarily in agriculture.[22] In agriculture, women's work is frequently unpaid. Poor women's productivity is limited by low education levels, lack of information, and virtually no assets for collateral for credit.[23]

Economic opportunity. This captures the opportunities available to women once they are part of the workforce, including maternity leave benefits, and government-provided childcare. Women do not experience the same employment opportunities, remuneration, benefits and health or safety conditions as a result of weak enforcement of the law in the informal private sector. There is employment discrimination against women on the grounds of marriage or maternity leave in the formal private sector.[24]

▼ **The incidence of illiteracy among female-headed households is 85% in rural areas and 57% in urban areas**

22. National Council for Women and World Bank (2003), 'Gender Assessment', Egypt.
23. UNDP (2005), op.cit.
24. National Council for Women and World Bank (2003), op.cit.

Political empowerment. It includes the participation of women in decision-making structures. In 2004, prior to the national elections, women made up 2.4% of the Parliament, 6% were appointments to the Shura Council and 1.2% were elected to local councils. Participation in syndicates was 17%, in trade unions 3%.[25] A major challenge is to overcome entrenched chauvinistic norms (MDG 2003). Another is to issue more identity cards, to enable women to become 'legal' entities and be eligible to vote.

▼ The wager is whether Egypt can accomplish significantly greater gender parity by 2015

Educational attainment. This covers women's enrolment rates in primary, secondary and tertiary education. Official figures indicate that by 2004, enrolment indicators increased to 95.9% in primary schools, to 92.2% in preparatory schools, to 99.3% in secondary schools, and to 90% in tertiary education. However, gender gaps are accentuated by poverty. The gap in the illiteracy rate is 16% for poor and 5% for non-poor children. The incidence of illiteracy among female-headed households is 85% in rural areas and 57% in urban areas. Cultural constraints and the heavy burden of household chores are factors contributing to poor girls' low education achievement.[26] Unemployment rates among young girls completing secondary school remains high and is a disincentive.

Health and wellbeing. This category attempts mainly to assess the quality of reproductive healthcare available to women. While women's life expectancy at birth increased to 72.3 years in 2004 and the maternal mortality rate (per 100,000 live births) decreased from 174 in 1992 to 67.6 in 2004, serious gender-related health risks remain. In Egypt, female circumcision remains quasi universal, with over 90% of married women subjected to female genital mutilation.[27] There are unmet family planning needs. Given the urgency of regulating population growth, more action is needed, especially in rural areas, for women to gain more control over fertility decisions within culturally accepted norms.

Cultural and attitudinal barriers make women reluctant to approach male doctors. There appears to be under-reporting and underestimation of decision-making by women at the household level over control of sexuality, and of gender-based violence.[28]

Achieving gender equality

The wager is whether Egypt can accomplish significantly greater gender parity by 2015. This is an essential ingredient for achieving the MDGs, and because MDGs are mutually reinforcing, success in meeting goals will have positive impacts on gender equality, especially for the poor.

EHDR 2005 proposes the following recommendations to further parity and equality:

- mobilize and sensitize community leaders and civil society organizations to the importance of addressing discrimination and violence against women; invite and respect their suggestions concerning the basis and means to overcome existing cultural biases; induce a change in public attitudes and behaviors by reference to social and economic gains, and advocate for legislative changes where necessary;
- adopt persuasion and incentives to reduce gender bias in school enrolment in basic education amongst the poor; introduce more single sex, girl-friendly facilities and safer sanitary amenities at schools; expand access to and ensure completion of the primary stage of education; remove gender biases from the curricula; and reorient training of teachers — many of whom are themselves victims of discrimination;
- expand chances of employment in the formal private sector by bearing the cost implicit in the legal privileges to working mothers; provide social security for those in the informal economy; create public day nursery facilities for poor working mothers; increase access to credit; provide upgrade and promotion opportunities for professions such as nursing, social services;
- guarantee the legitimate property and inheritance rights for women, and facilitate personal status legal procedures;
- increase women's political participation and representation through awareness campaigns, and support or appoint female candidates in elections at all levels;
- tailor health facilities to meet women's special needs and address cultural constraints

24. National Council for Women and World Bank (2003), op.cit.
25. UNDP (2005), op.cit.
26. UNDP (2005), op.cit.
27. National Council for Women and World Bank (2003), op.cit, UNDP (2005), op.cit.
28. UNDP (2005), op.cit.

on seeking medical help; empower women in family planning decisions via the media to impact attitudes, and provide the tools to obtain contraception easily at low or no cost.

Some proposed strategy lines

At the institutional level, a number of propositions can be put forward:

- upgrade the National Council for Women to become a ministry for women's affairs;
- create a unit in the national statistical agency to engage in sex-disaggregated data collection and monitoring activities;[29]
- track gender outcomes, using national and international monitoring and accountability mechanisms;
- strengthen women's access to professional and vocational training in traditional (nursing) and non-traditional (ICT and software) skills;
- facilitate the creation of NGOs with activities directly related to women;
- provide state-run community-based women's locales for social or income-generating activities;
- create girl's youth centers and IT clubs;
- address violence against women by criminalizing this practice, using legal enforcement, create 'women-friendly' procedures such as female-staffed police to make referrals more accessible to women, and provide state shelters for battered women.

A rough MDG costing estimate

Using MDG projections, preliminary figures suggest that the cost of gender-specific interventions such as increasing awareness of sexual and reproductive health issues, helping the transition of girls to work, encouraging political participation, ending violence against women, resolving systemic issues and general administrative costs will average US$1.30 per capita annually for 2005 up till 2015, with costs peaking at US$2.00 per capita in 2015. For a complete estimate of costs to meet Goal 3 of the MDGs, these costs must be combined with the costs of appropriate intervention to reach women and girls in each of the other appropiate MDGs.

Box 2.3: What is social equity in a free market economy?

Under the liberal system, social equity rests on five pillars:

1. equality of all individuals before the law; freedom of expression and belief; participation in decision-making as guaranteed by the constitution; change of government by peaceful means; and enjoyment of all human rights as expressed in international conventions and agreements;
2. the right of every individual to wealth and to the fruits of his labor, as long as it is earned lawfully. In other words, equity is consistent with disparities in income or wealth;
3. the rights of the poor, the disabled and disenfranchised to a social safety net which provides a minimum of protection according to the resources available to the state;
4. the individual in life depends on his effort and perseverance, and not on class or family advantage, or on religious or ethnic identity or on ties to the ruling/powers;
5. the special importance of the tax system and public expenditure for the purpose of reducing disparities in income and wealth and in order to allocate sufficient resources to the provision of public services in favor of the poor and those of low income.

Source: Said El Naggar, (1997), Reveal of the political and economic Order in Egypt. Dar El Shorouk Press. Volume 1

Towards a vision for gender empowerment in Egypt

More important than the MDG costing is the vision exercise which proposes a far more ambitious allocation of budget that is both pro-poor and gender-equitable. The vision targets an additional 600 thousand jobs for women over ten years, within the framework of NGO activity, especially in pre-school education, health and social work. These jobs are related to the vision's proposed new social contract. More generally however, prerequisites for the realization of gender empowerment include political will, the active promotion of gender equality in policy, normative and operational work, a strengthened inter-agency partnership between civil society and government, and progress through better monitoring and reporting.[30] ■

29. An integrated approach to meeting the needs of Egypt's poor and wealthy women would require disaggregated figures from a number of different ministries and agencies. This is currently not available.
30. IDEAS (1999), The Distribution of Gender Differentials & Public Sector Wage Premia in Egypt. Seventh African Regional Conference on Women (Beijing + 10) Conference Report, Addis Ababa, 2004.

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CHAPTER THREE

A New Social Contract For Egypt

The realities of this age suggest that freedom from poverty and ability to compete in global markets are interconnected, since both are predicated on the quality of a country's human capabilities. This chapter presents the elements and principles of a new pro-poor, pro-growth 'social contract' for Egypt. It proposes a vision for prosperity that is contingent on the equitable distribution of the sources of growth and its gains among all Egyptians.

Box 3.1: Brief historical vignettes

Egypt's 1923 Constitution laid the foundations for an order that can best be described as a parliamentary democracy. The Constitution was based on European liberal principles and recognized the sovereignty of the nation, individual human rights, gave full powers of legislation and oversight to parliament and limited the role of the state to administration, security and defense. The rotation of power was a reality with several governments formed by different parties, all of which were accountable to parliament.

The 23 July Revolution in 1952, dismantled the liberal order in the name of social justice and full national sovereignty. The revolution addressed the social rights of the majority but at a cost. The outcome of the redistribution of property and privilege was a restriction of political rights, and the introduction of praiseworthy social gains that were, unfortunately, economically unsustainable. The new socialist regime created a large and at one time productive and successful public sector; it implemented universal free education, land reforms and promoted a discourse of liberation from occupation that shaped the struggle of scores of Arab and other colonized countries.

In 1971 with the 'opening up' of Egypt's economy, attempts were made to reintroduce democratic institutions to the Egyptian political scene and so redress a rising tide of disaffection. Political forums and parties as well as an upper house of parliament, the Shura Council, were part of the changes effected, but the Constitution — a product of a lingering command agenda — did little to check the power held by the administration, and given to the office of the President, with limited authority left to the legislative and judiciary branches, but no real mechanisms for oversight or accountability.

President Mubarak has asserted the importance of political participation and of freedom of expression despite the persistence of emergency laws introduced after the assassination of President Sadat. Most significantly a constitutional amendment permitting direct presidential elections amongst more than one nominee was proposed by the President in February 2005 and passed by both houses of Parliament in the summer of the same year. It is believed that these reforms will usher in a new democratic era.

Source: Osama Al Ghazali Harb, Background Paper, EHDR 2005

▼ The central authority of the state has been a defining characteristic of Egypt

1. Foundations of a New Social Contract

For Egypt to face the great challenges of the 21st century, a 'correction' is needed in the relationship between stakeholders in the political, social, economic and administrative domains. A new understanding of this relationship is based on the premise that an integrated rights-based program of political, social, and economic action coupled with administrative reforms and partnerships of the executive with civil society can effect such a correction. The vision is for growth that does not assume a 'trickle down' outcome but that extends its dividends to all and not only to the few. The proposition is for a 'bottom up' process whereby growth is fired by the enhancement of human capital and by applying the principles of equitable distribution.

A basic rights and welfare orientation. There are many levels at which analysts have discussed the concept of a social contract. Is it the framework that specifies political rights? Is it about civic entitlements? Can it be another name for welfare? Is it about obedience, patriotism, social stability, freedom or a blueprint for power sharing and rotation? The EHDR 2005 defines the social contract as an integrated rights-based program of action that is tailored and targeted to the poor but which provides choices and alternatives for other citizens so as to enable all Egyptians to raise their capabilities to realize the ambitions that they value.

The political conditions for a new deal

It is essential to affect a social contract through political liberties and rights. It is equally necessary to contemplate politics and individual rights and consider social rights and the enabling environment that empowers citizens to participate in democracy. Box 3.1 provides a short narrative of the history of modern Egyptian citizenship illustrating the evolution of political thinking towards such a new deal.

The relationship between citizens and the state

In the past, the political order as embodied by the authority of the state has played a leading role in all economic, social and political processes. The central authority of the state has been a defining characteristic of this country — as has been its role in the provision of public services and goods. Political, economic and social progress, if they are to succeed, must now rely on a collective national effort where equity becomes one of the

Box 3.2: One man's thoughts on Egypt's constitution and political system

The late Dr. Ibrahim Shehata, distinguished lawyer, Vice President and Counselor at the World Bank, made a number of recommendations for Egypt's political and organizational future in the coming decade, which appeared in his book A Message to My Country *(2003). Selected extracts appear below.**

The standards of a modern democratic regime are based on a number of principals, such as the nation as the source of authority, complying with the majority's decisions and choices in elections and authority; the multiplicity of parties; protecting public freedom and rights; the separation of different but equal authorities (executive, legislative and judicial); the supremacy of the law; an independent judicial system; and judicial supervision over the laws' constitutionality.

Before formulating a vision for a constitution, some issues must be addressed:

Public freedoms and rights. Constitutional provisions that are have unspecified boundaries, and whose specifications are left to the law are a threat to these rights if not subjected to reasonable constraints. Reviewing such provisions is a necessity. A constitution should include provisions that emphasize public freedoms and rights, in the same manner as in the International Human Rights Agreement signed by Egypt. It should clarify the state's legal commitment in providing positive rights (e.g. employment, education, healthcare, social security, housing), and not just use these as empty slogans. Those provisions concerning public responsibilities and national duties should be definitive, and clarify the legal liability for omission. Also, it is worth considering whether certain rights deserve to be included, such as rights on living in an unpolluted environment, rights of Egyptians living abroad, parents and children's rights, rights to public meetings and rights to establish civil society organizations.

The state's social and economic role. The current constitution assumes that Egypt is a socialist state, at a time when Egypt is moving towards a liberal market economy. Most modern constitutions do not define economic systems for the state to follow, leaving this to the elected government, where the state's economic plans can change through a change of government. However, a stress on the protection of public and private property, respecting rights and contract obligations and applying these considerations are necessary for stability, and support the investment environment and contractual obligations under any economic system. They are rich with provisions on the role of the state in the social field. They emphasize the state's commitment to providing all citizens with quality basic services, at an affordable price, which allows the state to continue providing such services, but, at the same time, make them available free of charge for financially weak citizens. These services include basic education, elimination of illiteracy, healthcare and protection to all citizens, within the state's financial limits. If it is impractical for the constitution to obligate the state to provide employment for all citizens, it is better that it obligates the state to develop an unemployment insurance system.

Parliament and the Shura Council. Regarding the number of parliamentary members, the current number (454 member) is too big to allow parliament to practice its duties efficiently. It is also useful that people are left to freely choose their representatives without assigning those representatives from certain segments (e.g. peasants and laborers). The question of allowing a member of parliament to practice another governmental job or allowing him/her to accept ministerial posts, should be researched. Also the role of the parliament in approving the general budget should be considered, to grant it this right, associated with certain guarantees, as well as a condition stating that the parliament should approve any loan required by the government. Most Anglo-Saxon countries' Constitutions state that parliament has to set — while approving the general budget —- maximum loan limits for what the government is allowed to borrow annually, without setting a limit on each loan separately in order not to delay loan agreements, and subsequently burdening the state with loan charges. As for the Shura Council, the Constitution should consider giving it a legislative role instead of its current consultative role, considering that it has highly qualified members — which is not always the case for parliament.

The presidency. Serious consideration should be given to limit the duration of president's rule to a specific presidential period, and if this not possible, to devolve from a presidential system to a system that gives additional powers and responsibilities to the prime minister. The Constitution should clarify whether the presence of a vice president is obligatory or not. Exceptional authorities of the President should be specified in the constitution. Provisions would provide certain guarantees to protect freedoms and rights in time of crisis, review all conditions concerning exceptional situations and define a time limit for practicing any special conditions.

Political parties. Egypt's current constitution mentions a multiparty system but leaves to the law their formation, management and organization. A request to form a political party must be submitted to a higher legally appointed committee which has the authority to deny or approve requests, although decisions can be reviewed by the Administrative Cases Court. It might be more appropriate to allow the formation of political parties without the need for an administrative or political decision, while giving the Attorney General's Office or another chosen entity, the right to a court appeal to prohibit a party from practicing its activities, if against the law or the Constitution.

Supervising the constitutionality of the law. Egypt's current constitution empowers the Supreme Court to review the constitutionality of laws or explain legislative provisions, but it entrusts the law to manage all issues concerning this Court, except discharging its members, which is carried out by the Supreme Court itself. It is preferable that a constitution defines who has the right to declare the Supreme Court's jurisdiction in supervising the constitutionality of laws, and not leave that to the law to manage its tasks. The constitution also should allow the Supreme Court's protective supervision on laws in addition to later review, and also give rights to citizens to directly appeal to the Supreme Court against laws that they believe unconstitutional.

* Ibrahim Shehata, (2003) 'A Message to My Country'

significant forces, making a new social contract an urgent necessity. On the domestic front, democracy has become a national cause upon which all political factions and parties agree. This aspiration, while mainly a home-grown phenomenon is echoed in the international arena.

In the face of these pressures there are three possible responses:

- a 'best case' scenario with a paradigm shift that translates into real democratic processes and institutions and in which citizenship rights are secured for all, and new obligations are

Box 3.3: Administrative decentralization

Decentralization is part of state administrative reform, as described in the previous EHDR 2004. Decentralization does not mean transferring authority from top to bottom of the hierarchy, either at the administrative unit or the municipal level; it entails a change in roles at both levels whereby the center sets the standards and the organizational base — relinquishing the task of delivering services — and the lower levels and municipalities are placed in charge and become accountable to citizens. It entails transferring a part of the terms of reference assigned to central ministries to lower levels and units, especially in those domains related to targeted economic policies, via expanded municipal power in levying taxes and fees, and in promoting and utilizing private sector resources, allowing salary scales and bonus systems to become competitive, enabling governorates and administrative units freedom on recruitment and promotions. At the local level, decentralization enhances local and democratic participation, local institutional capacity building and better resource use. It leads to the rapid accomplishment of tasks, the empowerment of citizens, the appropriate response to local problems, accountability through local ownership, an improvement in basic services, and a decrease in transactions costs.

There are domains where there are strong inter-linkages and synergies between the state and civil institutions, such as Chambers of Commerce, Federations of Industry and Producers, Trade Unions and Syndicates, NGOs and other civil society organizations. These are potentially powerful partners for development if given the appropriate terms of reference to contribute towards the national project as independent partners and active participants.

Source: Ahmed Sakr Ashour, Alexandria University

▼ **Quality of public goods and ease of access to them are fundamental factors in the race towards competitiveness**

accepted by all, with power sharing and rotation as fundamental axes of politics.

- a reformist agenda in which limited freedom is extended with changes made to the Constitution and the executive and legislature to remove excess and provide a 'first step' towards a full democracy. In this scenario problems of citizenship rights and of the fundamentals of how power is shared and amongst which groups it rotates are not solved, but merely postponed.
- the worst case scenario is for there to be denial and defensiveness as a response to change, thereby bringing to a standstill any moves towards progressive reform.

The best case scenario will effect a new social contract and change the fundamentals of citizenship. This scenario requires:

- constitutional change that lays the foundations for the separation of power, rotation through the ballot box to decide leadership, a multi-party system, secure individual human and social rights for all Egyptians;
- ideological change that instills a culture of rights, freedom, and human dignity;
- institutional change that injects efficacy and accountability into political and social institutions such as political parties and the legislature;
- policy change whereby policy is scientific, aims for the public good, is problem oriented, and in which accountability, participation and decentralization are the guiding principles.

This course of political reform requires a strong will to ensure that a new social contract is delivered to its citizens (See Box 3.2). It assumes the active participation of equal partners. The state will discharge its responsibilities of security, defense and justice. It will supply quality public goods that are able to ensure equity and that are efficient and effective. Citizens will provide their allegiance, respect to the law of the land, and to public property and the rights of others and also provide their oversight and active participation in applying this contract, guarding and securing its gains and outcomes.

Such a re-conceptualization may face resistance from various quarters in the face of new mechanisms of participation and accountability, or public inertia in front of unfamiliar obligations, or from entrenched interests to devolve control or lose privileges. It is important to identify these as obstacles to be overcome rather than reasons to resist change.

2. Public Goods as Tools for Social Justice

Global competition means that in Egypt, employment creation domestically and investment and job opportunities across borders will require

those higher levels of wellbeing, education and capacities able to raise capabilities and ensure greater productivity. Thus, quality of public goods and their ease of access are fundamental factors in the race towards competitiveness.

A survey conducted for the EHDR 2005 — highlights of which appear later in this chapter — confirms the essential role that government plays in the distribution of goods, services, welfare and opportunity. The state's function in securing the welfare of citizens remains a primary instrument in securing social justice. Any modification to the role of government dictated by the logic of market economies must be preceded by careful preparation and an effective program that ensures that all citizens are in a position to benefit from and participate in the process of change.

If in the past the distribution of public goods and services has created dependency and masked unemployment, the future requires a more efficient and inclusive social agenda that consolidates human capital, gives people opportunities and independence, eradicates poverty, and provides for contingencies in times of crisis.

Box 3.4: Philanthropic behavior can make a difference

Philanthropic generosity exists in almost all communities in Egypt, and, if channeled properly, can assist in various aspects of development. It is not easy, however, to measure the size and extent of philanthropic action given the many forms it takes and the fact that it is usually not public.

One response has been a national study titled 'Philanthropy for Social Development in Egypt' conducted by the Center for Development Service (CDS), to explore how to energize development through reliance on private resources. The study covered ten governorates, utilizing both quantitative and qualitative methods. The sample — which had a 95% confidence level — comprised 2000 families and 1200 philanthropic organizations (NGOs, foundations and associations, religious and otherwise). Additionally, 200 qualitative interviews were conducted with individuals in six governorates (donors, recipients, and heads of organizations).

The main findings on the size of philanthropic contributions are significant. Based on modest estimates, total philanthropic giving in Egypt in 2004 is in excess of LE 2 billion (approximately US$ 350 million), divided as follows:

1. LE l.5 billion cash donations (equivalent to about US$ 260 million);
2. LE 4.6 million worth of volunteer activities (equivalent to about US$ 800,000);
3. LE 500 million in-kind donations (equivalent to about $ 88 million). Many donors prefer to donate to individuals rather than to organizations.

These amounts translate into approximately US$ 5.2 per capita in donations for 2004, compared to $13 per capita in foreign aid in 2003 (according to World Bank figures). The question arises as to whether or how this injection of privately donated benevolence can be channeled into planned local development priorities, as opposed to charity, relief efforts and non-organized services to which the bulk of this amount is currently being dispersed.

Source: Near East Foundation (2004-2005), Center for Development Services. Study Authors: Marwa El Daly, Radwa El Gaaly, and Areeg El Badrawy

Do subsidies work?

In the case of poverty alleviation, simple transfers to bridge income gaps are imperfect solutions that can only work as part of an integrated, well-designed and comprehensive national plan of action to tap the squandered competencies of all those that are disadvantaged.

Why a national 'pro-poor' welfare approach?

In Egypt, structural adjustments to the economy over the past decades have necessitated reviews of public expenditures and subsidies. The GOE has consistently attempted to streamline its welfare obligations or to rationalize public spending in favor of the less privileged. However, the various packages of services have not been able to stem the rise in actual poverty and the subjective perceptions of impoverishment, partly as a result of limited resources and narrow targeting. These measures have also fallen short of consolidating or improving the quality of much of Egypt's human capital. Many public deliverables have attempted to provide quality standards in the face of a growing population and economic pressures, but while the cost of public goods to the budget is rising, their appeal to the disadvantaged is plunging. This creates a serious credibility deficit for the state, as many targeted subsidies — while indispensable — are neither designed nor able to fill all of the gaps. Frequently, subsidies, for example, are assumed to reflect the 'real' cost, depriving the state of any credit for its efforts. The proliferation of private and relatively expensive alternatives attests to the fact that even those least able to afford them now pay for services deemed essential but lacking.

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Simple transfers to bridge income gaps are imperfect solutions that can only work as part of an integrated national plan

The EHDR suggests that an aggressive pro-poor national program to enhance the quality of public goods and services, will forge a common purpose and distribute gains to all social groups. It is a means to creating a dynamic economy, polity, and society. It lays the foundation for the inclusion of

Box 3.5: Alternative concepts and measures of poverty

Poverty measurement	Objective	Examples of policies/programs	Challenged by	Comment
Poverty line	• income poverty	• cash transfers, employment in public works, food subsidies, safety nets	• targeting	• favored by GoE and its partners
Subjective poverty	• relative deprivation	• taxation, public sector employment, consumer protection	• lack of innovative redistribution policies that are pro-poor/pro-growth	• if ignored can frustrate poverty alleviation strategies
Human or capability poverty	• overcome the consequences of poverty	• decommoditize basic services, pro-poor ethics in service delivery, integrated community-based projects	• initial cost, human resources, new thinking	• a favored HD indicator

Source: Hania Sholkamy, Background Paper, EHDR 2005

Table 3.1: Income poverty measurement (2002)

	Lower PL (%)	Sub. PL (%)
All Egypt	20.4	31.8
Metropolitan	5.7	42.5
Lower urban	9.8	33.7
Lower rural	16.6	30.7
Upper urban	19.2	36.1
Upper rural	34.9	23.3

Note: PL: Poverty Level
Source: El-Laithy et al., (2003)

all Egyptians in participatory democratic processes through the guarantee of social citizenship rights for all.

▼ **Poor growth will engender poverty but so will the disruption of mechanisms for just distribution**

Definitions of poverty

Besides using a clear and relevant definition, poverty alleviation plans need to be informed of the causes or dynamics that engender poverty, rather than just address its incidence. These requirements undermine the usefulness of poverty level (PL) measurements that are based on income or consumption expenditure per capita of individual households. Poverty itself is not inherently a purely 'individual' phenomenon. The probability of being poor is not randomly distributed across the population. Thus an important question is raised: Why are people poor? They are poor because they have deficits in assets, education, health, stable employment, and no access to services. Economist and Nobel Laureate Amartiya Sen suggests that such 'capability' poverty is intimately linked to income poverty, and that gender, regional location, age and marital status act as poverty clustering mechanisms.

The question of subjective poverty should be incorporated in any poverty alleviation plan. According to Bourginion, poverty reduction in a given country and at a given point of time is fully determined by the rate of growth of the mean income of the population and the change in the distribution of income.[1] Poor growth will engender poverty but so will the disruption of mechanisms for just distribution.

One measure of poverty utilized by poverty alleviation strategies in Egypt is that of income poverty defined by the national poverty line. Another important measure of poverty is subjective poverty (people describing themselves as poor). More relevant still to the case of Egypt is human or capability poverty (where capability is defined as being well nourished, healthy, educated, living in freedom and dignity).

Subjective poverty remains high in Egypt. According to a recent UNDP publication (see Table 3.1), the margin of difference between the income poverty line and subjective poverty was over 35% in metropolitan Egypt. Capability poverty is also deemed substantial and an estimated 34% of Egyptians are poor by this composite measure (see Box 3.5). Each of these three definitions of poverty suggests different policies and programs.

Social public goods are the services and deliverables by which the state distributes assets such as health, education, social protection and other

1.Bourginion 2005

citizenship rights thus ameliorating distribution imbalances and inequities. In other words they deliver 'capabilities' to citizens and their absence or shortfall leads to capability or human development poverty. The fair[2] distribution of these goods can also ameliorate subjectively felt poverty by insuring that opportunities are equitably distributed across the whole population regardless of class or location. They can insure that people can get an excellent education in a public school and that they can be healthy while living in a remote village, and that they have access to gainful employment and social security regardless of their origins or characteristics.

Besides choosing a relevant definition, poverty alleviation plans should address the causes or dynamics which engender poverty, not just its incidence. This further undermines PL measurements which are based on income or consumption expenditure per capita of individual households. Poverty itself is not inherently a purely 'individual' phenomenon. The probability of being poor is not randomly distributed across the population. The correlation between poverty, measured by income or consumption levels and access to education, health and other services is high.

An integrated welfare regime

Welfare systems cannot be treated as residual structures without clearly defined mandates and rules for sustainability. They are the primary tools of the modern nationstate to realize a social model and to enhance the potentials of this model.[3] For Egypt's welfare program to be cost, time and energy effective it must address the reasons for social disparities and map out a national masterplan with defined budgetary resources, drawing upon but realigning available underutilized bureaucratic and administrative synergies at all levels.

The EHDR 2005 proposal is therefore for an integrated welfare regime that transfers capabilities/assets to the poor and provides for effective mechanisms to ensure public goods for all citizens, thereby bringing about a virtuous circle of stability and progress. Simply focusing on the provision of welfare may seem to deviate from the notion of empowerment which is now central to development. But political empowerment is itself both a trigger to and an outcome of sound social policies. Without citizenship rights and access to services and opportunities as well as a dignified standard of living there can be no empowerment.

Box 3.6: Welfare regimes in the West

In First World countries, the system called the 'Welfare State'[1] was first intended to reduce the poverty brought about by unemployment. It was then implicitly assumed that economic systems would generally be at full employment rather than become chronic situation of general high unemployment. The defining characteristics of social welfare regimes in Western countries today are their objectives and modes of delivery. The state plays an essential role in each category. This role varies from being a service provider to being a distant arbitrator of political decisions that affect the financing of these systems.

The Scandinavian system — perceived to be the most generous — is designed to safeguard individual and gender rights as values held in high regard in these countries. The American system energizes the role of markets in meeting people's needs and avoids restrictions and state controls which are at odds with the national political culture. Similarly the European models recognize the roles of church and family, especially in the South, and cater for these values.

The pressure to reduce public expenditure and reduce tax rates so as to stay competitive on the global scene has led to many rich western countries dismantling some social programs and/or resorting to means-testing and other targeted schemes to meet their growth targets and at the same time meet their political and social obligations. Some cite these trends to argue that nations who are less advanced, have fewer means and larger populations, have all the more reason to reject public spending on social welfare.

Source: Hania Sholkamy, Background Paper, EHDR 2005

Constraints of the current welfare system

The cost of public goods is accounted for in the GOE annual budget without sufficient monitoring of the performance of these current social expenditures over time and without reference to efficacy. Budget disclosure and public debate on priorities will become sustainable tools for social protection and transformation. A significant proportion of the financial outlay supports a disproportionately large and ineffectual bureaucracy, whose energy and skills could be more productively used if reoriented towards active participation in quality service delivery.

Centrally controlled expenditures create dependency rather than promote local initiatives to reach goals and provide protection. They also encourage people to spend rather than save since earmarked funds are unable to keep up with the changing economic realities that people are experiencing, most notably rising prices, inflation and unemployment. Mechanisms to

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Poverty alleviation plans should address the causes or dynamics which engenders poverty, not just its incidence

2. The capability to be well nourished, healthy, educated, living in freedom and dignity.
3. Observers following current discussions of the European Union and its identity will note that the current presidency of the EU has chosen to identify Europe by its social model of welfare and citizenship rights.

Box 3.7: Rethinking the role of corporations in society

'A company is not simply a financial construction of land, labor and capital. It is much more than this. A vibrant company is a synergistic space and we need to think of advancing not a company but a community. This means a very different agenda for companies going forward.' John McFarlane; CEO, Australia & New Zealand Banking Group.

This quotation is in line with the new vision spelled out for Egypt in this report. As the father of market economics Adam Smith argued, corporations benefit society the most when focusing on maximizing profits and creating the wealth of a nation. But corporations are also made up of citizens with the means and responsibility to support sustainable development in their communities. Scholars in the areas of business ethics, and business and society have long argued that business today should not only provide private goods to customers and profits to stockholders, but should also show responsibility towards other stakeholders, including employees and society at large.

These views have been championed by the UN Secretary General in the Global Compact Initiative, and enshrined in the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the Rio Declaration on the Environment and Development. They have also been translated into ten universally-accepted principles in the areas of human rights, labor standards, the environment and anti-corruption, as outlined below.

Human rights

- *Principle 1.* Businesses should support and respect internationally-proclaimed human rights within their sphere of influence;
- *Principle 2.* They should not be complicit in human rights abuses.

Labor standards

- *Principle 3.* Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- *Principle 4.* They should eliminate all forms of forced and compulsory labor;
- *Principle 5.* They should contribute to the effective abolition of child labor;
- *Principle 6.* They should eliminate discrimination with respect to employment and occupation.

Environment

- *Principle 7.* Businesses should support a precautionary approach to environmental challenges;
- *Principle 8.* They should undertake initiatives to promote greater environmental responsibility;
- *Principle 9.* They should encourage the development and diffusion of environmentally-friendly technologies.

Anti-corruption

- *Principle 10.* Businesses should work against corruption in all its forms, including extortion and bribery.

In Egypt, some progress has been made toward corporate social responsibility. A number of large corporations joined the Global Compact Initiative in 2004. They have committed to adopting a code of ethics in the areas of human rights, labor regulations, environmental responsibility and fighting corruption. But this is just one step in the right direction that needs to be followed by others if corporations are to assume their expected role in the development of Egypt for the benefit of all. Other steps could include sponsoring public service advertising, supporting training and internship or apprenticeship programs and 'adopting' specific public service initiatives such as funding child care facilities for working mothers. The needs are many and the expectations high for corporations to create lasting social value along with profit.

Source: Ahmed Galal, The Egyptian Center for Economic Studies (ECES)

▼ **An enabling national social welfare model — in partnership with private interests — can create the bedrock for growth and prosperity**

make available credible credit or insurance have touched only a small share of those who are most likely to benefit.

Thus, even though Egypt's welfare and social security system on paper seem generous, expensive, and even ambitious some observed factors question this perception. The public debate on social spending is problematic. The media is offensive and the debate is not sufficiently informed by the participation of the actual stakeholders. The special survey commissioned by the EHDR 2005 addresses this problem and provides clues on citizen perceptions, as can be seen later in this chapter. However, it does appear that there is a public mood of apathy and passive acquiesence. While the sample surveyed appears to accept present conditions (possibly following the principle of 'a bird in hand') their behavior speaks otherwise, as they turn to private suppliers of social goods and services.

The process of policy making

In Egypt, conditions constrain the evolution of a desirable 'balance of interest' characteristic of participatory democracies with strong civil societies and well developed interest groups. The interaction of a broad spectrum of social and political forces, will ensure that policy is formulated via government institutions in consultation with civil society according to shared priorities, aided by technical planners to diagnose problems, tackle them and evaluate the outcome.

The current system — because limited in outreach — has served some segments of society better than others. One of its shortfalls has been to provide 'social protection' rather than to extend social welfare services as a public tool that complements the markets and social institutions — such as the family or NGOs. An enabling national social welfare model — in partnership with private interests — can create the bedrock

Box 3.8: Social entrepreneurs as agents of change

Dina Abdel Wahab, who advocates for the inclusion of children with special needs in public schools, could bring in one million challenged children into the public school system. Hisham El-Ruby has designed a national database to link employers to volunteer-seekers, and offers courses in resume writing and presentation skills, and, with the Ministry of Youth convert national youth centers into active hubs for career development. Magda Iskander is creating a new professional niche: home health care, in order to provide high-quality care and assistance to the elderly. In Minya, Maher Boshra is defending the rights of quarry workers, who are subject to dangerous working-conditions and are not recognized by labor laws, and therefore lack access to occupational safety, job security, social security, and health insurance. He has created a syndicate to represent their interests and hopes his work will serve as a model for other workers in Egypt's informal sector.

Dina, Hisham, Magda and Maher are 'fellows' of Ashoka: Innovators for the Public, a global non-profit organization that has been monitoring and encouraging social entrepreneurship at the global level since 1980. While these remarkable individuals may differ in terms of class, religion, and gender, they are all passionate individuals who have come up with creative solutions to social challenges in their communities and beyond. They are 'social entrepreneurs' because they are to social change what business entrepreneurs are to economic advancement. The major difference is that a social entrepreneur's objective is to create lasting social value rather than profit.

The global NGO allows each 'fellow' to concentrate fully on his/her idea by offering them "professional" services, analyzing their strategies, helping them spread their idea, connecting them with other fellows around the world to see a large 'return' on its investments in social products. Ashoka acts like a venture capital firm, canvassing the world using a rigorous screening process. It focuses on identifying the most innovative social entrepreneurs with the greatest possibility of achieving large-scale social impact. It now operates in forty-eight countries, assisting 1,400 social entrepreneurs around the world. In 2003, it opened its regional Middle East and North Africa office in Cairo, headed by Dr. Iman Bibars, and in the span of a year, the NGO has already found 11 'fellows' in Egypt.

The story of economics professor, Mohamed Yunus, founder of the Grameen Bank in Bangladesh, is indicative of the difference social entrepreneurs can make. Yunus founded the Grameen Bank in 1976 to extend small collateral-free loans for self-employment to some of the world's poorest people. By 2003 the bank had lent US$4 billion to 2.8 million Bangladeshi villagers, 95 percent of them women. Yunus revolutionized the idea of micro-credit, so that by 2001, more than 2,186 micro-credit programs were reaching 27 million of the world's poorest families. He is one of the many social entrepreneurs whose vision, single-mindedness, persuasiveness, and energy are creating ripple effects in the way ordinary people overcome challenges in their society.

Source: Nada Abdelnour, Ashoka Middle East and North Africa Office

▼ **Social entrepreneurship is to social change what business entrepreneurs are to economic advancement**

for growth and prosperity, to filter upwards from the grassroots.

3. The EHDR 2005 Framework

The current situation in Egypt assumes that professional quality public goods for all are too expensive for a relatively poor state to provide. The EHDR vision believes that small sums if accompanied with large changes in the conceptualization, targeting, delivery and monitoring of services can effectively meet the needs of all.

Western models show the benefits of early social spending, and such investments —in less developed countries — remain the main vehicle to secure for all the social rights of citizenship. Egypt now has the opportunity to place its bets on a well- tested development tool by recognizing that efficient welfare expenditure is the means to prosperity rather than a financial burden that stands in the way of prosperity.

To redress deficiencies and restore the welfare component to Egypt's social services, the EHDR proposes to focus on capability poverty as the goal of social spending. Some elements of this approach have been highly successful and can be adapted to Egypt in promoting human development goals, as in the example from Chile (Box 4.7). The framework adopted for Egypt proposes a number of general features:

- a strong pro-poor agenda under the umbrella of a national welfare plan;
- parallel schemes to meet the needs of middle and lower middle income categories via market mechanisms and cost-sharing;
- participatory modes of delivery, evaluation and monitoring;
- decentralized bureaucracies with increased powers;
- training to enhance the capabilities of state structures to deliver quality services;
- use of pilot programs with experimental designs to monitor efficacy.

Box 3.9 Ten principles of the EHDR 2005 framework

Current situation	Constraints	Innovation	Structural changes	Examples
Principle 1	**Enables the poor to fully utilize services and resources**			
Despite access, poor are underserved	• No out-reach mechanisms • No coordination with NGOs and civil society	• burden is on the service to enjoin and maintain utilization of services	• no hidden/overt costs to services • create a demand for services through well-trained and motivated social workers • enhance quality of services	• school meals, cash transfers for books, health and check-ups for all family members • revise the cadres and capacities of community social workers
Principle 2	**Recognizes and addresses the characteristics of poverty**			
The poor are over-represented in certain geographical areas (Upper Egypt) and amongst social groups (eg: female headed households).	• targeting may be difficult and unpopular • durability of the male-headed household and of urban bias	• decentralization of services. • fostering local level priority setting in accordance with demographic and social research findings	• positive bias towards areas and groups where poverty is deep and prevalent • water and sanitation improvements in poor areas	• ration cards in women's names • utility connections to poor household free of charge
Principle 3	**Differentiates the needs of the poor from benefits given to middle classes**			
The current waste and cost in social services	• competition and resistance from middle classes losing privileges	• securing basic quality services for all • promoting the role of private sector as a provider for some services and role of government as regulator	• investing in very high quality basic services by saving on current schemes that give too much coverage with poor quality	• loans for students, student bursaries, private insurance schemes, job creation in the private sector with mandatory social security coverage
Principle 4	**Encourages formalization of ownership, eases transaction costs for poor**			
Social exclusion of poor	• negative perception of formalization in the private sector	• cutting cost of formalization enables the poor to freely access services and to use their assets	• prohibiting use of registers for criminal prosecution	• decreasing liabilities of formalization
Poor losing out due to informalization of markets and the cost of formalization	• nature of Egyptian bureaucracy	• revising the terms of formalization that penalize employers	• legal reform to facilitate registration of people, assets and contracts	• registers of birth, enrolment etc. is the basis for extending services not controls of the state
Principle 5	**Transfers public goods and services as assets for the poor only a sectored approach to poverty**			
Cash transfers are very small and address only the current basic needs of poor people.	• only a sectoral approach to poverty	• integrated approach to consolidate human capital by integrating the functions provided by different sectors	• integrating current subsidy and cash transfer schemes into pur-pose oriented programs. • giving land/tax breaks to allow poor to create assets	• giving the ultra poor land rights, credit, healthy environment, best education for all
Principle 6	**Promotes transparency**			
Very complex social services and schemes that require strong social networks	• no clear public priorities and budgets • no effective accountability procedures	• clear priority setting is integrated into all programs and becomesthe basis for monitoring andevaluation • accept that priorities will change	• decentralized and community based prioritization • enhancing the capacities of service providers and administrators to plan and execute policy	• education and health funds given at the community level • increasing compensation for planners/local administrators and raising A participatory skills
Principle 7	**Adopts a participatory approach**			
Community and civil society representation often limited to the provision of service i.e. Illiteracy classes, clinics, etc.	• lack of effective mechanisms to ensure poor peoples' representation	• community representation becomes part of supervisory and legislative structures	• decreasing hierarchy in social service structures • school boards, community health boards, user associations for utilities are given power to assess quality rather than official representatives	• access information for monitoring and evaluation • new legal framework for public representation and periodical change in representatives
Principle 8	**Endorses a rights-based decommoditization of services**			
All current social rights such as education and health are contingent on income	• resistance by those currently 'selling' services (teachers, doctors, administrators)	• neutralizing the black market economy in social rights such as in basic education, health care, social security benefits, subsidized goods, access to services	• insuring the high quality of social services so as to compete with the private sector	• citizen charters which make clear provider responsibility and citizen rights • service users have voice and channels to make public their grievances (media). • publicizing chains of authority and decision making
Principle 9	**Is effective in promoting the poor**			
Social services, transfers, and subsidies are costly and poorly targeted	• push to reduce public expenditures with minimal revision of priorities • unemployment	• pro-poor spending is good for growth • combating middle class bias in policies	• measures to give voice to the poor and integrate their rights with the aspirations of the well-to-do	• more media representation • pro-poor ethics • stressing entitlements over charity
Principle 10	**Presents a client-centered strategy**			
Social services schemes are a vehicle for public sector employment and of poor quality	• government losing political patronage • continuing high demand for public sector employment	• client-based services with better pay and training, for service provider	• rationalizing social service expenditures so administrative costs are reduced and expenditure on clients increased	• higher pay for service providers • re-allocation of non-service staff and retraining

The best case scenario

In Chapter Four, the EHDR focuses on the provision of four public goods that can eliminate capability poverty. These are education, health care, social insurance and an integrated package of benefits for the ultra-poor. The EHDR translates the key features of the Human Development capability approach into actions that meet the framework criteria.

The package proposes the means to:

1. deliver the rights to quality education, health, and social support (old-age, disability, maternity, etc) for all citizens;
2. realize social integration through the elimination of location-specific poverty and other social inequities including gender inequality;
3. has diversified content — but not purpose — so that the needs of different groups are accommodated in accordance with the principles of decentralization;
4. enhances the capabilities of citizens and therefore creates human capital that can contribute towards growth;
5. ensures the accountability of the state to its citizens, as well as citizens to the state.

Under a best case scenario, the EHDR 2005 has developed a set of ten principles (see Box 3.8) under each of which are listed all the elements that govern a shift to a national welfare program that addresses the needs of the underprivileged and poor.

The propositions put forward require that a new social contract must negotiate competing interests between different groups/interests/classes by demonstrating that differential impacts of social service changes are to the benefit of all, and that 'losers' are those best able to carry the loss; small or large changes in the responsibilities, and accountability of administrative bureaucracies are rewarded through remuneration, job satisfaction and self respect; capacity building is seen as a means to promotion and becomes part of the process of 'lifelong' learning; and services are not transformed into tradable commodities when 'citizen charters' define the scope of services to be provided to the public, thereby reducing corruption and waste.

4. The EHDR survey: six messages from Egyptian households

This chapter has relied on 'reason' to argue for a new social contract. But any argument needs to be backed by evidence. A specially commissioned survey conducted for the EHDR 2005 attempted to gain a factual understanding of people's experiences, expectations and perceptions of public goods and services.

An effective social contract negotiates competing interests between different groups and interests

The survey was conducted by researchers at the Social Research Center of the American University in Cairo (AUC) and the Information and Decision Support Center of the Cabinet (IDSC) to investigate the utilization of public goods amongst a nationally representative sample of 6006 Egyptian households. The survey explored peoples' perceptions and aspirations with regards to the quality and efficacy of public goods and services. It also investigated the degree of citizens' participation in decision-making, and the rights of consumers and clients.

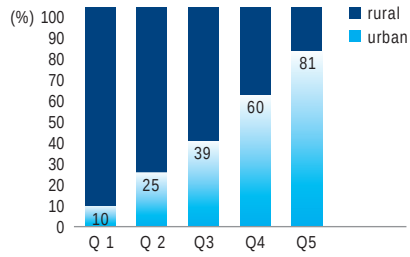
Data was collected on a total number of 29,425 persons by 74 field researchers over one month (July 2005).[4] The survey tool was comprised of 417 questions that covered education, health, employment, electricity, water and sanitation, housing and utilities, gas and fuel, transportation, political participation, safety and security, consumer confidence, aspirations and fears about the future. The topic of food security and vulnerability was not covered since the Ministry of Supply and the World Food Program's survey on this question also took place in July 2005.

The survey results are presented in the form of six evidence-based messages:

Message 1. Poverty is localized and masked by averages. Rates of poverty can mask the characteristics and experiences of the poor. The new social contract must target the poor and accommodate their needs. The poor are deprived from public goods such as water, sanitation, and social security. Moreover, the poorest and wealthiest live in different worlds; the poor are localized in rural areas and are therefore relatively easy to target.

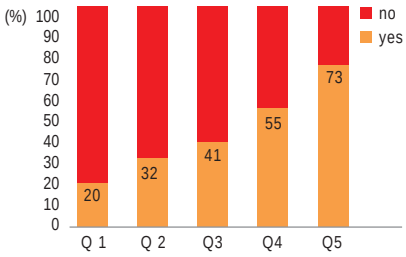
4.The sample of households is a nationally representative one drawn from CAPMAS.

Figure 3.1: Distribution urban to rural by wealth quintiles



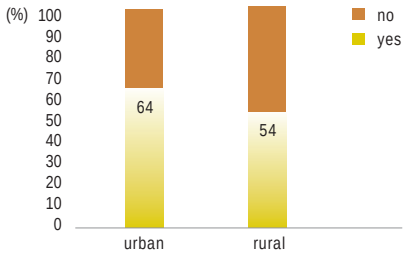
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods. Conducted by SRC (AUC) and IDSC. Principal investigators: H. Sholkamy and M. Osman

Figure 3.2: Social security participation by quintiles



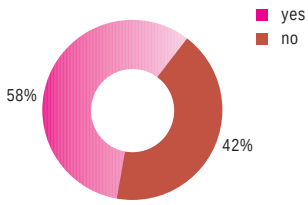
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.3: Percentage of families whose children take private tutoring by residence



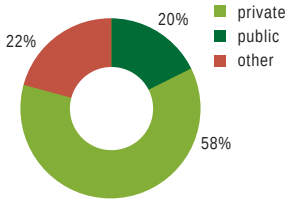
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.4: Percentage of families whose children take private tutoring



Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.5: Utilization of public, private and other health services.



Note: about 10% use both public and private health services.
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

▼ **There is no evidence of wide-spread dissatification with quality of public services**

When the survey data was analyzed in terms of wealth quintiles,[5] it was found that the distribution of wealth groups between rural and urban settings was significant.

- 90% of households in the lowest wealth quintile (Q1) live in rural areas while only 19% of the highest wealth quintile (Q5) is rural.
- almost 80% of Q1 household heads do not have any social security while only 26.6% of those in the highest quintile are not covered by any social security plan. The average for the whole sample is 53.5% who are not covered by social security.
- 40% of households in Q1 are not connected to piped water and 13% of those rely on getting water from their neighbors. Only 0.2% of those in Q5 have no piped water. On average, 96% of those in the highest three Wealth quintiles have piped water.
- as for sanitation, only 13.4% of households in Q1 are linked to the sewage system while 81.3% of those in Q5 are linked to sewage system and drains. Of those in the lowest quintile, 71.7% rely on septic tanks and underground sewage and 10.1% have no sewage at all.
- most (95%) households in Q1 have no flushes and while 16% have no latrines at all, while all of the households in the wealthiest three quintiles have latrines and toilets.
- as many as 74% of the households in Q1 do not have a refrigerator.

The profiles of those who fall in the lowest wealth quintile show that over a third of the heads of households in Q1 are agricultural workers (36.2%) and another 11.3% are peasants farming their own land. Almost half (47.2%) are ultra poor rural households. They have no access to any of the perks and networks that come with public sector employment. For example, the distribution of students who frequent 'community'[6] schools shows that 90% of them come from the lowest wealth quintile. These schools are sensitive to the needs of the poor. On the other hand, the students who are in government schools represent all five quintiles. These households urgently need a package of goods and services that takes into account the specificities of their poverty and environment.

Message 2. Services are viewed as entitlements with no expectations of quality. Despite a wide acknowledgement, documented in Chapter Four, of the deterioration in services such as health and education, and the attempts currently underway to reform and upgrade their quality, there is no evidence of widespread dissatisfaction amongst families surveyed.

5. Estimated on the basis of human and material assets such as access to running water and sanitation, possession of a refrigerator, employment, education and other variables.
6. Community schools cater for students who have not been to formal school or who have dropped out of the formal education system.

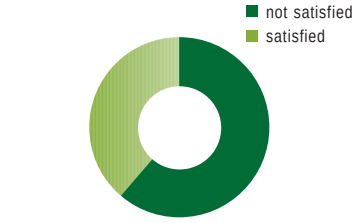
- on average 52% are satisfied with the quality of education in public and experimental schools and over 60% are happy with the quality of government health services.
- when families were asked about what they considered problems of the educational system, 10% said there were no problems. 31% mentioned private tutoring as the most significant problem, while 22.5% ranked private tutoring as the second most significant problem. Other indicators of poor quality such as high cost of education, poor quality of teaching, overcrowding in classrooms, and curricula that are inappropriate were ranked as significant challenges as well.
- the quoted high level of satisfaction is coupled with a high level of resort to private tutoring as well with little variation between urban and rural families.

The cost to families of education, especially in government schools is high. The median costs of education per student are found to be LE 748 per year of which 22% are spent on private tutoring. These costs include school tuition fees, clothes, books, and transport costs. Despite this high cost, families are not expressing a demand for a better service. Those who can afford to pay more subsidize the quality of education by resorting to private tutoring. Families favored the distribution of bursaries to cover school fees over the improvement of the quality of education as solutions to the problems of government education.

Health services were also deemed problematic, with quality of care and cost of medication cited as significant problems. There is significant expenditure on private health care but higher satisfaction with public as compared to private services. This result appears paradoxical and may be due to higher but unfulfilled expectations of private service quality.

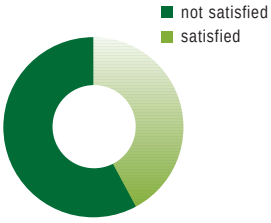
It is important to note that services may be limited in what they offer which places some groups in significant risk. For example of the 2% who shoulder a burden of disability, less than 10% were in any form of rehabilitation. Chronic disease can also pose a significant burden. In this survey over 10% had chronic diseases and were taking regular medications. Over three quarters of those taking regular medications were paying for it themselves. Respondents cited the costs of visitation fees and medications as the major obstacles they encountered in their quest for health care.

Figure 3.6 a: Satisfaction with public health services



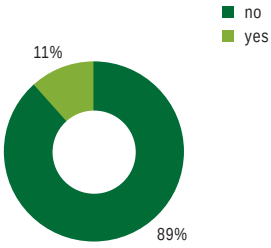
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.6 b: Satisfaction with private health services



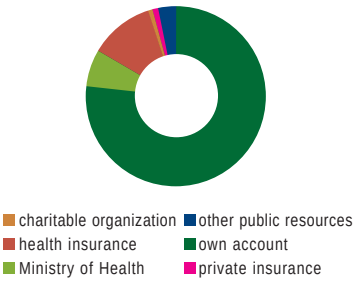
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.7: Percent taking regular medication for chronic illnesses



Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

Figure 3.8: Source of finance to cover costs of medication



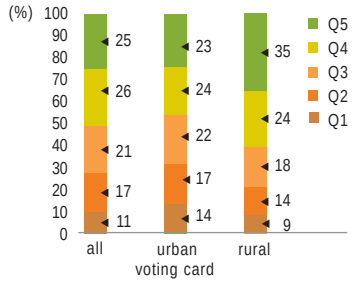
Source: EHDR 2005 Survey of Household Perceptions of Public and Social Goods, Ibid

The new social contract cannot improve the quality of social services without taking into account the low expectations of people and their willingness to put up with low standards and high costs. For the contract to make a breakthrough it must elevate peoples' expectations and aim for best quality, so as to reduce the degree of out-of-pocket expenditures. The EHDR contends that low expectations are an expression of accommodation to poor quality even if people do not express dissatisfaction, possibly out of fear of losing an entitlement or 'right.'

▼ **Low expectations are an expression of accommodation to poor quality**

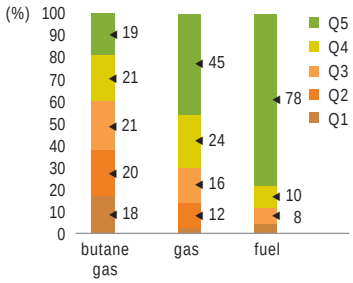
Message 3. Willingness to participate in improving quality of services is modest. Perhaps because public goods and services are perceived as the obligation of the state, few

Figure 3.9: Percentage with voting card by quintiles



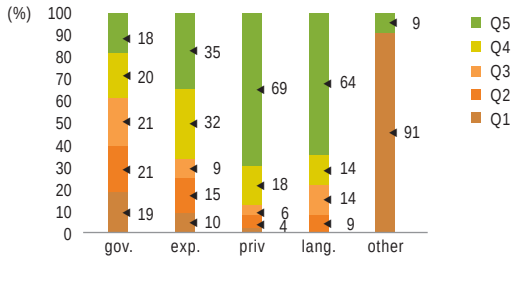
Source: EHDR 2005 Survey, Ibid

Figure 3.10: Awareness of subsidies on fuel, gas/butane gas (yes, aware)



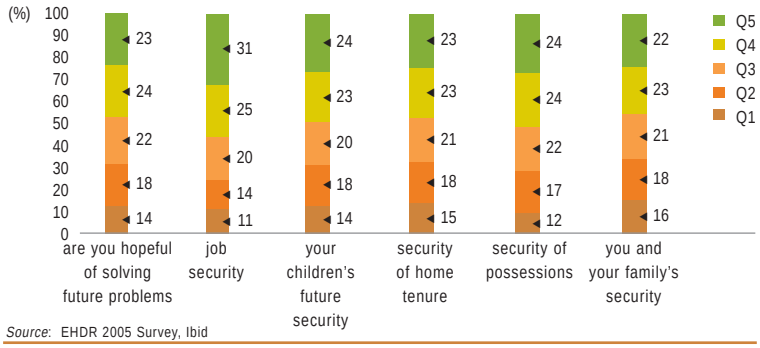
Source: EHDR 2005 Survey, Ibid

Figure 3.11: Distribution of student registration in different schools by quintiles



Source: EHDR 2005 Survey, Ibid

Figure 3.12: Perceptions of safety and security by quintiles



Source: EHDR 2005 Survey, Ibid

▼ **The vast majority of respondents do not know that the state subsidizes services and goods**

respondents were willing to consider participation in committees, associations, or consumer groups. This disaffection with participation may be explained by the notion of services as entitlements — and a major challenge will be to change this perception.

Only 28% expressed the willingness to participate in a committee to support and oversee the health unit. The low propensity to believe that participation can improve services puts a responsibility on the state to lead by example and to integrate the role of communities in oversight, accountability, and decision making in the structure of services and of public spending.

The new social contract needs to do more than simply make room for people's participation. Public services and utilities should become conditional on people's participation and become proactive in enjoining people who still feel those services, their costs, their shortcomings and their management is the government's responsibility and obligation.

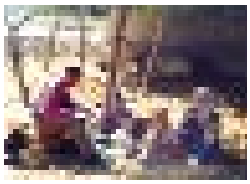
Message 4. The state is sometimes unable to communicate with its citizens. The vast majority of respondents do not know that the state subsidizes basic services and goods, and are unaware that this is unsustainable in the long run. The evidence that the relationship between the state and its citizens is fractured is amply reflected in peoples' expectations of and frustrations with services such as education, health and public utilities, without understanding that falling standards are inevitable within the present framework. But the state also bears the negative consequences of this fractured relationship by promising more than it can deliver.

Perhaps the state has been badly served by its own media and press which has not effectively and fairly documented the assets and liabilities of the current package of public goods and services. In masking the extent of certain failings, the state may have also forgone the credit for its own successes.

Enabling community participation in decision making and instilling the principles of public accounts and accountability will not only give people access to better services, but also invite them to shoulder civic duties and responsibilities. Transparency is the essential corner stone of the new social contract.Sharing information and decision making power to build confidence and ownership of public goods and utilities is essential for the future.

Message 5: Wealth is not a determinant in willingness to pay for better services. The better-off may not be willing to pay because, proportionately,

Box 3.10: Youth survey confirms a participation deficit



In 2004, a Youth Aspirations Survey was conducted by the UNDP and the National Council for Childhood and Motherhood. This was through the Ahram Center for Political and Strategic Studies amongst a sample of 2400 youth. The findings appear to support the EHDR survey result that there is, at best, only a modest interest in participation:

- youth surveyed have a propensity to conform to social mores, have a desire for stability, and adhere to a moral framework that places a high value on obedience to parents and reliance on the state to deliver services and address social and economic problems.
- youth prefer stability to change and prefer the familiar to the new. As many as 63% prefer a public sector job because it offers better job security. Education tempers this belief with 53% of those in the high education bracket expressing a willingness to venture into the private sector.
- two thirds (67%) had never taken part in any extra-curricular school activities and over half (56%) had never voted in student union elections. Only 15% of respondents had ever complained of a poor service or a bad product. This acquiescence in the public sphere is contrasted by the active participation that youth take in family decision-making (87%) which is where a majority said that they felt their opinions carry weight (63%).

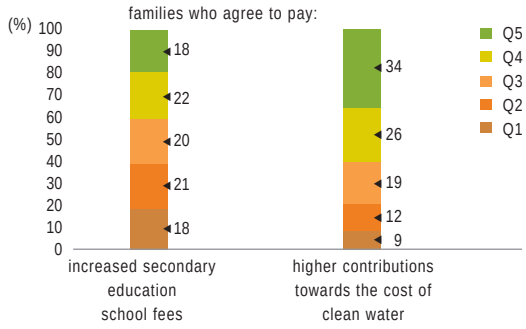
Youth may not participate because they believe that their engagement and activism do not count. This belief may have been precipitated by a social understanding that places them as passive recipients of goods and services and which rewards passivity but gives no benefits for innovation and activism. A lack of channels through which dissent can be expressed or remedies provided may also be a contributing factor.

Most telling are the findings on employment. Three out of four people surveyed found employment through family and other personal contacts. Less than one third (27%) of active job seekers have registered with a labor office.

Youth perceptions of employment illustrate the contradictions of Egypt's current social reality. While 58% believe that the state should be the main guarantor of employment, the vast majority has relied on their families and contacts to actually find a job. This dissonance suggests the presence of a transition period, where expectations should be brought into line with reality through the application of a new and articulated 'contract' or social understanding.

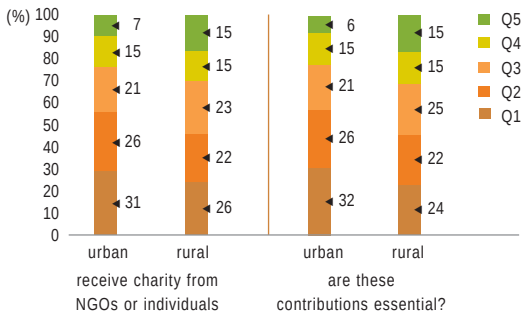
Source: Amany Nakhla, UNDP, based on NCCM and UNDP 2004 Youth Aspiration Survey, conducted by Al Ahram Centre for Political and Strategic Studies

Figure 3.13: Percentage of families who agree to pay increased secondary education school fees and higher contributions towards the cost of clean water



Source: EHDR 2005 Survey, Ibid

Figure 3.14: Distribution of those receiving charity and subsidies by quintile



Source: Ibid

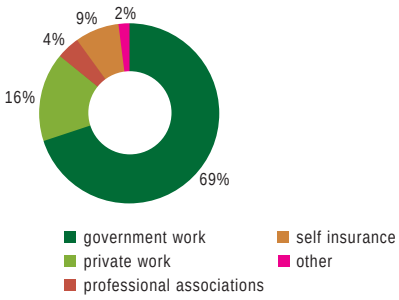
they already carry a large part of the financial burden, but the poor also shoulder a large burden relative to their income. Those who can and who cannot afford to contribute financially towards better public services reject this option despite their obvious willingness to buy such services from the private sector — as is documented in out-of-pocket expenditure on health and on education.

Figure 3.11 shows that all five quintiles are almost equally represented in the utilization of government schools. It is therefore notable that even the very poor have the same (albeit low) willingness to pay more as do other wealth quintiles. This contrasts with peoples' willingness to pay for improving the quality of water where the poor are half as willing as the rich to pay for better quality water. This may indicate that some public goods need scaled cost-saving targeting, and that there is a lack of knowledge among the poor of the links between water, sanitation and health, requiring some form of awareness raising.

The new social contract must account for the unwillingness to pay — even by the wealthy — for public goods. This attitude indicates the suc-

▼ **Differentiation between those who choose not to pay and those who cannot pay is essential**

Figure 3.15: Social security as distributed by source of participation



Source: EHDR Survey, Ibid

A comprehensive welfare model is the bedrock for reform

cessful internalization by citizens of the socialist promise of an all-encompassing welfare state.

The better-off may already be paying higher fees, or for private tutoring, but differentiation between those who choose not to pay and those who cannot pay is essential. The new contract must address the dynamics of private supply of public goods and promote rational expenditure by addressing out-of-pocket costs and presenting schemes to reduce the overall cost of services such as health and education, possibly by formalizing effective and consistent current out-of-pocket expenditures.

Message 6: People rely on government since the role of civil society, charities, markets and donations is small. To date the role of non-governmental resources for public goods is very small and seems to suffer from the same poor targeting as do other services. The sense of impoverishment and of high costs makes it incumbent on the state to continue to provide public goods to families but to make this expenditure better targeted and more effective.

Despite the importance of social security to safeguard the future, it is still predominantly a feature of government employment. To change the dependency on government services, support and subsidies, the new social contract cannot withdraw any support without making sure that other partners such as the private sector, markets, NGOs and religious and charitable organizations have effectively offered an alternative.

A brief wrap-up

Egypt has the opportunity now to create a social welfare regime that is in tune with the vision for future. Central to this model is shifting the focus of public goods for poverty alleviation from providing social protection to extending social welfare as a tool of government that compliments benefits from the roles played by markets and other social institutions such as the family. The transfer of assets through the delivery of public goods can guard 'against market failures and excesses by promoting balance in development and attaining equity in the distribution of associated gain and pain' (Nagi 2001). Rather than see social welfare as an expensive luxury, Egypt could adopt a comprehensive welfare model as the bedrock for reform by recognizing these services as a tool for achieving prosperity rather than a burden that stands in its way. ■

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CHAPTER FOUR

Delivering on the Social Contract

The attempt to provide universal and free public services in Egypt placed the state under considerable stress, with a proliferation of private initiatives to fill the vacuum, transforming many of the welfare rights of the ordinary citizen into marketed commodities and the preserve of those who can afford them. It has also allowed specific groups to exploit the deficiencies by providing alternative welfare services, whose better quality allowed them to indirectly promote partisan ideologies.

Box 4.1: Child centered schools: the vehicle to deliver quality in education

● **The child.** A child-centered school puts the requirements of the whole child at the center of its mission. Ideally, this includes premises that are physically attractive, with well-equipped classroom and library facilities, adequate playgrounds, and proper facilities for hygiene and medical services.

In short, an environment that enhances student learning and teacher capacity. Child-friendly schools are places of learning which allow children freedom of expression and participation in their own learning. They are schools that foster an environment of security where children's self-esteem is enhanced, allowing for growth and true learning and where there is no room for coercion or violence. They are also schools that are accountable to communities and rely on community participation for ensuring sustainable quality for children. The schools adopt continuous assessment through participatory monitoring and allow for a comprehensive evaluation of what the child knows and can do as well as where the child needs help, for remediation and support. The school ensures that all children learn and grow to be good citizens.

● **The teacher.** A child-centered education requires a teacher that is able to move away from traditional teaching methods and the transmission of information to become a facilitator in the adventure of learning. This requires an ability to deal with interactive instruction and an emphasis on comprehension and on the social construction of knowledge. It relies on 'child–rights' based values of justice, inclusion, equality, compassion and participation. A teacher training program to meet these essential values, qualities and skills would depend on a review of MOE goals for education and their effective communication to the teaching profession.A new generation of textbooks and learning guides can assist in the change in the role of the teacher, but equally crucial is innovation in the training of trainers for teachers, in the administrative structure of the school and in its relationship with the community.

Source: Malak Zaalouk, Background Paper, EHDR 2005

A paradigm shift in the quality of education can realize increased productivity and human capital development

The needs of the affluent are already subsumed under private sector services. As to the poor, this chapter proposes three areas — education, health and social insurance — where existing welfare services provided by the state can become the bedrock of stability and growth for those that cannot afford to turn to private suppliers. It also suggests a package for the ultra poor. Quality services are potentially powerful triggers for growth. An enhanced delivery of first-rate education, health and security services to all citizens — but particularly to the less privileged — will inject — from the grassroots — vigor and productive energy into the national economy.

1. Quality Education for All

While Egypt has made major strides in access to education with an enrolment rate reaching a level above 90%, quality still remains a major challenge. This report proposes a paradigm shift in the quality of education that can realize increased national productivity and human capital development. This shift reflects a change in ideological outlook — to ensure that education becomes a means not only by which to master the basics such as reading, writing and arithmetic, but also to achieve 'excellence' by acquiring values, attitudes, behaviors and skills that will help learners shape their own future and that of their societies. Quality education is a human right for individuals to reach their full potential. It is also a sure strategy for the creation of a knowledge-based society, social justice, good governance and a citizenry able to lead the way to a democratic and enlightened Egypt (Box 4.1).

Within this shift of perspective, the outcomes of learning are not just the child's proficiency in subject matter, but the child's capacity to self learn. It is *how* the child learns that brings about lasting results. Rote learning is the shortest lived and least effective method of learning and can never bring about transformation but reinforces the status quo. Learning that centers on the child is the educational equivalent of democracy and a form of learning that ensures that each boy and girl is one who has developed intellectual curiosity and research capacities — and the lifelong skills to pursue these; is able to plan and is goal oriented and takes decisions; has leadership skills and is able to work in teams.

All the above are necessary competencies and skills for the post-modern era that we live in and will create agents of transformation and change. Defined in this way, education can break the cycle of poverty both socially and individually.

Box 4.2: Structures to create quality education

There are a number of interrelated components that could improve the quality of education provided in Egypt's schools:

- **a strategic planning unit**. The objectives for quality are ambitious and will require strategic planning with astute situation analyses and risk factors using SWOT techniques. When assessing existing budget lines, not only should the analyses evaluate investments in the key components of quality, but also look at how equity is observed. A government strategy for funding should have enough data and analyses to allow it to make rational and informed choices between the various geographic areas as correlated with poverty indices, as well as between basic and tertiary education;
- **an accreditation structure** which will base itself on standards to ensure that schools and educational institutions are following quality guidelines and are ultimately accountable for that;
- **a national institution** for the professional development of educators (Professional Academy for Teachers, PAT). This structure would strive to enhance teachers' professional development by developing criteria and standards for best performing teachers and best training and learning programs. It would accredit the programs for pre-service training and the providers of services and select and license teachers. Finally it would set up an assessment system that would lead to promotion by merit and that would also track the impact of professional development programs. To succeed, a professional development scheme will also depend on enhancing teachers' and educators' social and economic status. This will entail a revision of the salary scale by the state and also a revision of opportunities with special regard to the (low) ratio of teachers to numerous administrators;
- **school boards and education committees** will ensure the accountability of the school and transparency of the system. The boards will also reflect the willingness of communities to meet the demands of their children in the schools. It will in some instances secure cost sharing;
- **school based units** for the professional development of educators and for quality control will ensure decentralization has taken place and will secure prompt quality control, capacity building and problem solving at the school level;
- **school based research** units will help enrich educational theory and practice and will serve to enhance quality at the school level.

Source: Malak Zaalouk, Background Paper, EHDR 2005

▼

Educators need to learn the role of facilitator and create the classroom environment that enables children to achieve 'excellence'

Pre-conditions to quality education

Decentralization and democratization. Decentralization is a necessary but insufficient condition for bringing about quality learning. To be effective, it must be coupled with the empowerment of schools, communities, teachers and children through the adoption of a school-based reform approach. It is at the school level that decision making and financial autonomy should lie. It is also at the school level that information should be gathered and analyzed.

A culture of quality. A culture of quality needs to be created through the development of standards and methods of measurement. These mechanisms will allow for proper evaluation and accountability. Steps have been taken by the GOE in this direction but they still constitute a partial vision for quality reform, but the vision as well as the culture of quality, measurement and accountability needs to spread. This requires a strong media strategy, structures to implement standards and a great deal of capacity building and awareness raising to allow the public to support the implementation of standards.

A culture of rights. The media and other important cultural institutions need to propagate a culture of rights where people will develop the social responsibility for the application of rights in all walks of life — both in the private and public domains; and where parents and students have a profound sense of entitlement which leads them to demand and protect their rights and respect the rights of others (Box 4.2).

A focus on capacity building

The EHDR 2005 thus proposes a change in the philosophy of education. This, in turn, requires that educators have the capacity to accept the pedagogical reasons for change and the practical teaching capability and tools to put this into practice. They would need to learn how to assume the new role of facilitator and role model, and create the classroom environment that enables the children in their care to achieve 'excellence' by promoting values, attitudes, behaviors and skills that will help learners shape their own future and that of their societies. This is perhaps a difficult task facing capacity-building, and will require the support of policymakers and

educators at the highest levels, a decentralized school management structure at the local levels, as well as the development of new generation teaching materials and an improved physical environment for schools. Achieving this transformation is likely to be a long-term project.

The education sector in Egypt is the largest in the region. The size of the workforce amounts to 1,400 thousand teaching and non-teaching staff at the school level, in addition to administrative staff at central, governorate and district levels. The Ministry of Education (MOE), as the main provider of in-service teacher training, does not have the capacity to cater for the training needs of all employees, even within the traditional parameters. This has led to the adoption of the 'one size fits all' strategy whereby all teachers receive the same training at the same time irrespective of the wide variation of their qualifications (only 46% of employed teachers are graduates of Faculties of Education).

▼ **Recruitment of qualified training staff is an essential ingredient for the success of capacity building**

To operate the increasing numbers of newly constructed schools in the last decade, there is an urgent need to overcome shortage in teaching staff. To date, the shortage is estimated to amount to 160 thousand teachers, and the result is that a considerable number of teachers — some with no pre-service training — are contracted by MOE. The contracted teachers are eligible for receiving training at the school level but not at the MOE central or governorate level, and local school level training is as yet the weakest link in the training program. In-service training needs considerable strengthening as the key to help achieve the quality objective, to reach target groups neglected by the burdened system (laboratory technicians, for example) and to cover all teachers, whether contracted or employed.

Building the capacity for educational leadership and management of change across the education system is also a key instrument for achieving the vision's transformation. Some structures such as school-based training units are already in place but must be activated by allocating the necessary budgets and empowering staff to manage the unit, which will necessitate a revisit of existing mechanisms, division of roles and responsibilities.

Challenges facing in-service training

While the MOE has succeeded in building an excellent training infrastructure such as well-equipped training centers, some with accommodation facilities and high-tech video conferencing facilities covering the 27 governorates, facilities are underutilized for a variety of reasons including inadequate planning and limited budgetary allocations. These facilities, if exploited efficiently to reinforce a culture of quality, could prove an invaluable asset to capacity building.

Reform of the planning process

Master plan and accreditation. The development of a training master plan and an accreditation system for training programs and providers is crucial. Programs can be tailored to real needs, based on active learning strategies and quality standards. Intensive workshops, technical assistance and study tours for leaders in education would boost the start-up phase and create a critical mass that can act as catalysts for change. The process of selection and recruitment of qualified and motivated training staff — with the application of the right incentives — is a key ingredient for the success of national capacity building.

In-service training. An in-service training plan that reflects the goals of the master plan could cover all training programs provided under the umbrella of MOE and lead to more efficient utilization of the limited training budget. This is currently being developed through the creation of the Professional Academy for Teachers (PAT).

Strategy. Currently there is no strategic plan for training or for performance enhancement. Training needs are assessed annually by The Central Department for In-service Training (Box 4.3) in cooperation with different MOE sectors, subject counselors and general inspectors, by filling in a needs assessment form designed by CDIST, with the target groups (teaching and non-teaching staff) rarely participating or communicating in assessing their own needs on the ground. A limited number of courses for subject counselors and general inspectors on how to fill in the data forms is provided by CDIST, which then analyzes the data and sets priorities based on limited available resources. A list of training

Box 4.3: Current structure of education training

There are currently two main types of in-service training.

1. *'training for promotion'* which is a requirement for promotion to management levels regulated by Law 5/1991, and
2. *'training for performance enhancement'* for all MOE staff with no law for its organization, no stated policies, strategies or master plans.

Broadly, training responsibilities divide as follows:

At the central level

The Central Department for In-Service Training (CDIST), established in 2003, is the central body responsible for planning, organizing, and coordinating all in-service training conducted by MOE with a total capacity of 18,500 trainees per year. Other training venues which support the needs of the ministry include:

- *Center for Curriculum and Instructional Material Development* (CCIMD). Provides training for supervisors and senior teachers on developed or new curricula;
- *National Center for Educational Evaluation and Examinations* (NCEEE). Conducts training for supervisors and senior teachers on design of examinations and tools for student and teacher assessment;
- *the MOE service sector* plans and organizes missions for training abroad;
- *Technology Development Center (TDC) and the General Administration for Educational Computer*. Provide training in computer skills and the use of computers in classrooms. TDC also manages a video conferencing facility that covers all governorates in Egypt serving as a main tool for teacher training.

Directors of all the above centers as well as the Undersecretary of CDIST report directly to the Minister of Education with inadequate horizontal coordination.

The local level

- *governorate:* there is a training department responsible for assessing training needs at governorate level as well as implementation of training programs approved by CDIST;
- *district:* there is a training department responsible for communicating training needs to the governorate and participating in training program implementations.In addition, supervisors at governorate and district levels are responsible for continuous on-the-job training and coaching for teachers as well as performance evaluation;
- *school:* a School-based training unit (SBTU) has been established in all schools in 2000 and is responsible for enhancing capacities of school staff and submitting weekly progress reports to the governorate. The SBTUs are by and large inactive as they lack human and financial resources.

Source: Inas Hegazy, Background Paper, EHDR 2005

course topics and durations is subsequently developed. However, the training plan does not include programs developed by MOE specialized centers such as NCEEE, CCIMD and TDC (Box 4.3) as a result of inadequate coordination among these different centers, which impacts on the quality and efficiency of resources utilized.

The budgetary allocations

This report assumes that training programs to transform the whole system should cover 100 thousand teachers, 38 thousand school principals, 19 thousand inspectors and 554 educational leaders. To train 10 thousand of these educators will cost an estimated LE 15 million per annum.

However, the current annual training budget allocated for CDIST is only LE 170 thousand in addition to extra funds for special courses requested and funded by the ministry or donor agencies. The annual training budget at governorate level amounts to an average of LE35 thousand per governorate. It is clear that the present budget constraints will not cover estimated needs for a vigorous and effective service. Further, allocated budgets are received towards the end of the school year which leads to an accelerated and less than perfect delivery of training, with last minute notification to both trainers and trainees. At the school level, there are no financial allocations at all for the essential school based training units (SBTU), which are an indispensable component to raising quality at the level where the consequences of a poor education can have life-long repercussions.

▼
At the school level, there are no financial allocations for public school based training units

The quality of implementation

In-service training provided by universities consists mostly of on-shelf courses which do not touch on the specific practical needs of school teachers and principals. The 'hands on' experience of a short 'practice' teaching module, a requirement of many universities abroad, is not widespread in Egypt, nor is the use of model university-based kindergartens—with observation facilities for students. However, university professors have sound academic backgrounds and are aware of international innovations. MOE staff, on the other hand, have experience with traditional education systems and capacity development

Table 4.1: Proposed roles and responsibilities by level of training

- **Level 1. Central MOE: Professional Academy for Teachers (PAT)**
  - Create enabling environment and systems for accountability;
  - Set standards for different training services and service providers;
  - Create and communicate reform vision, policy and strategy;
  - Monitor and evaluate quality of different services;
  - Network with service providers;
  - Provide models for service providers;
  - Accredit training programs available;
  - Mobilize civil society;
  - Set recruitment, promotion and career development policies;
  - Coordinate and cooperate with pre-service training providers.
- **Level 2. Governorate: In-service training centers**
  - Ensure reform vision and policies are communicated efffectively;
  - Ensure that quality of available services match with standards;
  - Monitor and evaluate quality of different services;
  - Mobilize civil society and encourage community participation;
  - Network with local service providers;
  - Ensure application of recruitment and promotion policies;
  - Provide feedback and recommendations to central level.
- **Level 3. District: Training department**
  - Ensure reform vision and policies are communicated effectively;
  - Mobilize civil society and encourage community participation;
  - Network with local service providers;
  - Provide direct support to school based training units in assessing training needs and developing necessary plans;
  - Enhance networking and clustering of schools to exchange experience and rationalize resources;
  - Ensure application of recruitment and promotion policies at schools;
  - Provide feedback and recommendations to governorate level.
- **Level 4. School: School based training units**
  - Assess training needs and develop training plans;
  - Identify appropriate training courses - accredited by PAT;
  - Assess and evaluate impact of training on teacher performance and student achievement;
  - Provide feedback and recommendations to district level.

Source: Prepared by Inas Hegazy, Background Paper, EHDR 2005

Table 4.2: Proposed education system training by structure

- **Strategic planning unit**
  - Policy-making processes and strategic planning;
  - MIS, networking and communication frameworks;
  - Education reform and management of change;
  - Design and management of monitoring, follow-up and evaluation systems;
  - Financial analysis and costing.
- **Professional academy for teachers (PAT)**
  - Systems for training programs and centers assessment and evaluation;
  - Frameworks for accreditation;
  - MIS, networking and communications;
  - Human resources development and planning;
  - Assessing training needs;
  - Design and delivery of training programs;
  - Monitoring and evaluation of training programs;
  - Design frameworks for standards application;
  - Design of career development programs;
- **School boards and education committees**
  - School improvement planning;
  - Problem solving and decision making;
  - Resource mobilization and community participation.
- **School-based training units**
  - Planning training programs;
  - Design and delivery of training courses;
  - Assessing training needs;
  - Evaluation of training programs;
  - Training of trainers;
  - Computer skills.
- **School research units**
  - Action research for education change;
  - Designing and implementation of research studies;
  - Computer skills.

Source: Prepared by Inas Hegazy, Background Paper, EHDR 2005

needs. If both groups were to cooperate, the quality of all training programs could be enhanced.

Much of the current training that *administrative* staff receives is academic and abstract and emphasizes finances and administrative procedures to the exclusion of management and leadership skills. There is a need to upgrade needs assessment, teaching techniques to extend beyond lecturing to interactive learning, introduce better evaluation of programs and follow-up, as well as raise the number of professional trainers able to use modern training techniques. Training for school management staff is currently limited to a one-week course prior to each promotion, and is mainly theoretical, diminishing the ability of school principals to contribute to education reform objectives.

▼ Childhood programs directly contribute to social mobility and breaking the cycle of poverty

It is difficult to motivate trainers and trainees at all levels without linking outcomes with incentives. An additional shortfall is the absence of a well-defined master plan outlining the goals and the means of achieving them. At the SBTU level, for example, unit supervisors are not given the briefing and training necessary, aims and responsibilities are opaque, and the shortage of teachers and multiple shifts in some schools, leave no spare time for training, whose benefits are, in any case, not clear. In addition, the current promotion system forces skilled teachers out of classrooms to administrative positions as a requirement for promotion and salary increase, thus wasting available professional capacities

Quality education for specific groups

Early childhood development

Studies indicate that early childhood programs directly contribute to social mobility and breaking the cycle of poverty. While much early childhood learning now takes place within the context of the home, Egypt aims at reaching 60% of pre-school aged children through early childhood development programs by 2015. An estimated cost of

US$103 million is needed to reach 30% of the children between 2005-2010. This is currently being jointly funded by the government of Egypt, the Canadian government, World Food Program (WFP) and the World Bank. This is an area where joint resources will have to be targeted to the poorest and most deprived areas, and the private and community-based sectors would shoulder the rest. Interventions should not be totally shouldered by the Ministry of Education but call for a multi-faceted strategy that involves parenting education, some of which needs to be done by NGOs, and a great deal of which can be fulfilled by the media.

The media has the potential of playing a leadership role in that domain with a great deal of cost effectiveness. There are interesting examples from Turkey and Tunisia, and in Egypt, the example of Sesame Street is a model worth expanding on.

Girls' education

Girls' education programs are a significant contribution to poverty reduction as most studies have clearly testified to the important ripple effect of educating girls. National averages mask disparities on the sub-national and regional levels where the gender gap in some instances reaches 15% and above. This area of intervention has proved effective in attracting partnerships from the communities themselves, private sector, donors and other non-educational sectors.

The estimated cost. The total amount necessary for reducing the gender gap by half in targeted deprived areas is LE307 million for 2002-2007. Much of the integrated programs for the Girls' Education Initiative are, however, shouldered by sectors other than MOE. The Ministry of Planning (MOP) has allocated some LE 157 million, whilst the EU is proposing Euro 8.2 million and several private sector companies are also funding the building of one classroom schools for girls. Meanwhile, school meals are being funded by WFP and the Ministry of Agriculture.

The initiative is one that successfully uses a multi-sectoral approach and is very carefully targeted through a meticulous information system inclusive of school mapping through GIS. This allows one-classroom schools to be placed where they are most needed.

Different scenarios have different goals

There are two scenarios for a different future for education. The first is an improved and reformed scenario but still based on traditional thinking, and the second, a best case (BC) proposed by this report, is predicated on a paradigm shift. The second (BC) scenario is a total renovation in the way we deal with education, allowing for real transformations in learners, systems and relationships through which the social contract and true democratic citizenship is put in place. It will entail both a reallocation of existing resources and expansion of resources brought about through true community participation, and multiple partnerships. The BC will also entail cost saving in certain domains so as to promote other expenditure in areas that will support the shift towards an education for the coming century.

The media has the potential of playing a cost-effective leadership role in education

In line with the child's rights-based approach, both scenarios would be expected to continue to preserve the principle of free education for the duration of the three pre-university cycles. Universalization of education for a period of 10-15 years of continuous learning is important if the country as a whole is to move into a knowledge based society and attain the necessary transformation. This point is clearly made by a recent Arab Human Development Report.

Business as usual scenario

Under the BU scenario, learning achievements will improve within a reformed traditional system. The employment market will benefit from employees who can at least master the three Rs (reading, writing and arithmetic). There is no increase in budgets but a reallocation allowing for higher investments in the quality components of education. Total transformation, however, is not effectuated and the abilities of the student, at best, will remain limited by a narrow vision of the goals of education.

An analysis of the current scenario points to an access mode of reform where the largest budget lines are for, books, salaries and buildings. Areas

requiring greater inputs such as training, curriculum development, quality control, research and evaluation need greater levels of funding if a paradigm shift in quality is to take place.

In 2002/2003, pre-university spending on education was LE 17.2 billion or 4.1% of GDP and 13.5% of total public spending. In 2004-2005 this rose to a proportion of 6% of GDP for education, reaching a maximum of LE 24 billion.

Total investments are divided between amounts allocated to:

1. the governorates (LE 44.8 million);
2. the central MOE (LE 168.5 million);
3. allocations for school buildings (LE 930.8 million).

Total amounts in LE allocated to the governorates and districts for the year 2004-2005 are in the order of LE 12.812 billion (running costs), LE 764 thousand (capital investments) totaling LE 12.813 billion.

▼ Quality education is part of a developmental process in which students build upon a knowledge base and learn to value cultural diversity

With the exception of the frontier governorates, Luxor and the New Valley, the allocations of investment to Upper Egypt namely Fayoum, Beni Suef, Menia, Assiut and Suhag are relatively low. These governorates account for some of the most deprived areas with reference to literacy and enrolment rates with special reference to girls and females. The proportion of poor children aged 6-15 years not enrolled in education is three times that of the non-poor (World Bank 2002). It is clear that the poor receive a disproportionately lower share of total education expenditure. Equity is not likely to be enhanced if the neediest regions are under-funded. In fact, it is particularly those areas that would require larger allocations than average.

Best case scenario

Quality education is part of a developmental process in which students build upon and mature a knowledge base and learn to value cultural diversity, preparing them to succeed in a rapidly changing world, regardless of social status. It is a human right for the poor as for the wealthy. Schools in this vision are where both student and teacher are active participants in the learning process, which takes place in an environment that ensures physical and mental wellbeing. The school of excellence provides access to suitable learning material for knowledge, life skills, social capabilities, and ideally, health and nutrition interventions are available for those who need them through health insurance and school meals.

Increasing the level of expenditure and reallocating existing budget lines will thus be critical. Under BC conditions, the essential ingredients for change will be the systems of teacher training and reward. Another prerequisite will be giving schools a measure of autonomy coupled with structures that insure their accountability to the communities which they serve.

The financial dimension

As mentioned earlier, shortfalls in state resources per program may be partially covered through the private sector, local communities and the reallocation of household expenditure on formal education from out-of-school tuition. It has also been suggested that at the national level, priorities can be shifted to favor the three pre-university cycles, whilst encouraging increased investment to higher education through other resources. All these contribution areas are still not accurately assessed and will need some detailed research, but suggestions for private and community participation have included community seed money and capital expenditure (one time investments); community and private sector participation in equipment with in-kind donations; and school adoption systems by the private sector.

Overcoming the administrative imbalance

A serious anomaly is that the budget allocated for the central administration with regards to capital investments far exceeds the level of allocations for the governorates. This reflects the very high level of centralization and the heavy bias towards administrative as opposed to teaching posts. Reducing administrative staff at both central and local levels through reassignment to productive areas (for example, monitoring, data collecting) or through early retirement programs, or by recycling qualified administrative staff into teaching positions may require additional investment at the primary stage. But a revised system

of promotion, for example, could reward performance via additional benefits thereby retaining skilled teachers.

Are more allocations needed?

School Buildings. Of all the national and central projects, the General Authority for Educational Buildings (GAEB) receives more than 80% of the budget allocation of supporting agencies. Table 4.3 shows a comparison of allocations for the year 2004/2005 with regard to the various supporting agencies and projects.

It is quite feasible that with decentralized budgets and contracting systems allowing for more community participation, costs of school buildings will decline. Moreover school buildings should have multi-purpose usages including ECD parenting training and adult literacy and computer classes if the level of expenditure on school buildings is to be efficient and justified.

Teaching and administrative salaries. There are close to 1.5 million full and part-time teachers and administrators currently employed by the MOE. Their salaries constitute the largest proportion of current government expenditure on education. Total amounts allocated for salaries and incentives in 2004-2005 were LE 1,584 million. Additional incentives of a special nature totaled LE 15.8 million. Salaries for the central ministry amount to LE 695 million in comparison with LE 722 million for the governorates and LE 167 million as special incentives. These figures, although impressive, do not reflect the paucity of salaries at the disaggregated and individual level. Indeed, it is very difficult to identify all the details for each of the salary and incentive items.

MOE data reflects the huge excess in administrative staff, such that currently in primary and preparatory education there is one administrator per three teachers. The skewed proportion of teachers to administrators is self-defeating, particularly when the MOE reports a large shortage of teachers and especially at the sub-national level. Further, average earnings for teachers in public schools have been a strong disincentive to enter the profession, leading to the widespread phenomenon of 'private' lessons to augment incomes, and, perhaps equally serious, have lowered the perceived status of the profession, once considered highly respectable, and indeed more of a vocation.

Table 4.3: Allocations for specialized education agencies 2004-2005 (LE mil)

GAEB	SFRF	PDF	NCEEE	NCER	GAL	RCAE
1,223.2	4.0	75.0	7.8	5.9	183.2	4.1

Note: GAEB= General Authority for Educational Buildings
SFRF= Services Fees Revenues Fund
PDF= Projects Development Fund
NCEEE= National Center for Examinations and Education
NCER= National Center for Education Research
GAL= General Authority for Literacy
RCAE= Regional Center for Adult Education
Source: Data from MOE

Integration of technology. This is for the creation of learning materials through technology, using technology in schools, refurbishing the technological infrastructure, and upgrading existing equipment. There might be a value here in providing technology in schools in ways that are cost effective such as entering into agreements with technology producers and dealers to use older models as second-hand possibilities (TVs and radios for distance learning) and as a way of ridding companies of outdated equipment. The example of India in producing the 'Simputer' at a fraction of the cost of a standard computer is worth exploring, and China is now developing a similar low-cost computer. The estimated cost: For 2004-2005 MOE allocated only LE 150 thousand, which is clearly insufficient. Pooling public/private/donor resources to create a 'center of technology' for each governorate along the lines of the Chinese model — with a bank of computers for public use and a central data bank that is nationally linked may be a useful addition to Egypt's IT clubs, with scheduled visits from individual schools.

▼ School buildings should have multi-purpose usages

Learning space. More classes are needed to create more space for children to learn with quality. A quality classroom should allocate 1.5 square meters per child. Currently 40% of the schools have a class density far exceeding the average of 40 children per classroom; in fact many classes will reach a total of 80 students which makes learning of any kind impossible. In addition, the kinds of furniture provided are not fitting for the activity-based learning earlier

mentioned, and more appropriate designs are needed, based on best practice models. The estimated cost: Costs for an increase of 132,144 classrooms are LE16.9 billion. Only 30% of the amount has been funded. Moreover, the cost of appropriate furniture for these classrooms at a unit cost of LE 7,000 per classroom is LE 278 million.

The MOE is keen to reform its methods of assessment of learning

Maintenance and furniture. The cost of new furniture to provide activity-based learning in the 4312 primary schools established by the GoE in the last decade is estimated at LE 90 million, to cover 12,936 classrooms. Creative possibilities to extend supply of furniture are for schools to recycle existing furniture to reduce costs, or to flag furniture needs as an area where private sector support (through an active media campaign) is rewarded by, for example, a name plate. For 2004-2005, the MOE estimated a cost of only LE 930,806 for the maintenance of school buildings and the addition of new classrooms to alleviate student density, double and triple shifts.

Curriculum development and provision of learning materials. There is no allocated budget in the MOE annual budget for curriculum development, although a curriculum center does exist. Some revision has been made to the school curriculum, but not enough to support the child-centered activity approach. Much more is needed to identify 'child-based activity' and learning, in the way of guides for students and for teacher facilitation, activity materials, kits, sheets and cards. In fact, using other sources than books for learning might even reduce the cost of books. According to a recent World Bank Public Expenditure Review, the amounts allocated for books in 2004-2005 were in the order of 1.6 billion for a total of 481 million textbooks. The MOE has plans to find ways to increase cost recovery of used books. What appears to be necessary is to produce a new generation of learning aids that do not make books totally central to children's learning. Cards, sheets and activities are alternative and cost effective ways of supporting children's learning. School libraries and science and technology labs are important but underutilized sources of learning. The estimated cost for technical assistance, resources and materials for a reform start up of two years, for sustained building of capacity with training and study visits, would cost LE 151 million.

Reform of learner assessment. According to recent MOE figures the amount allocated for research for 2004-2005 was LE 570 thousand. The MOE is keen to reform its methods of assessment of learning, and is moving more towards authentic, diversified and multi-faceted forms of appraisal whereby the child will be assessed on academic knowledge, personality, attitudes and life skills, rather than tests and exams as the sole source of assessment. To this end the MOE allocated LE 860 thousand for 2004-2005 to the leading agency responsible, the NCEEE. This figure falls dramatically short of the estimate reached by staff members of the NCEEE who believe extensive capacity building is first needed to enable them to lead the assessment reform process. The estimated cost to cover technology training, training on assessment, English language training, and study tours to learn from other experiences is LE 4 million for a two year start up for continued quality development.

Information systems. The allocations for this sector are unclear, and in addition, there is duplication amongst several agencies in data collection. There is a dire need to create a strong consolidated information department within the strategic planning unit. This unit will be a central engine for planning, prioritization, monitoring and evaluation. It will allow for projections to be made and best effective use of resources.

Media and public relations. This is an area which should have had clear resource allocations to create the conditions for a public debate for consensus building on quality education. This can only help enhance the demand side of the educational reform and the awareness raising for the parents and general public. There does not seem to be a clear declared budget for this item.

For or against the best case scenario?

Generally, resistance to change in the educational system in Egypt is due to a traditional reliance on rote learning and an incomplete understanding of the difference between the passive transmission of and response to information

and the active participation in the process of knowledge acquisition and comprehension. The lack of public consensus on 'quality' education is coupled with interest group obstruction from quarters within and outside the field of education. A centralized grip on educational policy making and low or biased allocations from the national budget have also contributed to slowing down the reform process.

However, there is much cause for optimism with a growing and forceful political will for renewal, and a demand for change also coming from many quarters. Egypt has a number of available best practice models waiting to be scaled up, and increasing decentralization will empower local communities to participate more energetically in an education system that emphasizes lively knowledge acquisition rather than information replication. Standards are likely to be raised with the renewed interest from government in an improved training and accreditation system for the teaching profession that will produce an educational leadership at the higher, middle and lower range levels of practice. Private sector participation at all levels will ensure that subjects taught are compatible with market conditions and employment opportunities.

2. Pro-Poor Healthcare

Egypt has increased its expenditures on health since 1995 from just below 4% of GDP to 6%, a level comparable to many countries of similar socioeconomic conditions. Financially, both the Ministry of Finance and out-of–pocket contributions have increased, despite which health inequity persists — with the burden of ill-health disproportionately large amongst the poor. Egypt has more physicians per 100 thousand population than most developing countries — including many who have achieved better population health status, such as Sri Lanka and Costa Rica. Egypt also has an abundance of health facilities and hospital beds.

The problem lies partially in underutilized capacity rather than in shortages, although population growth has also stretched the carrying capacity of the public health system. Paradoxically, some of the system's successes — the decrease in child mortality and the raised level of life expectancy — have meant, respectively, a decrease in health expenditure per citizen and an increase in chronic diseases of the elderly.

The dilemma for the state is to choose which healthcare services can continue to be delivered for free, which should receive a slice of the expenditure pie — and by how much, and whether the state should incur all or part of the costs. The issues of universal or targeted coverage, and how to fund these is a major concern.

The multiple reasons behind poor health

Education, sanitation, nutrition, housing and environmental conditions as well as culture and traditions are part of the dynamics of health production. A woman is more likely to die of childbirth if she is not allowed to seek professional help, if she has had repeated and un-spaced pregnancies, suffers from anemia and calcium deficiency because of poor nutrition, was married at a very young age, or was unable to reach a hospital in time because she has no access to telephones and transport. Similarly, a child treated for diarrhea has a high chance of re-infection as he/she returns to the same unhygienic environment and is repeatedly exposed to the same factors that led to the first infection.

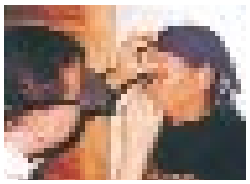
Why an integrated approach?

Government policies have usually not taken an integrated approach into consideration, given the wide range of variations, numerous clients, multiplicity of laws, supervisory entities and health service providers and the capacity to make use of them. However, understanding that health outcomes are a result of many interlinking factors is the basic requirement for improving health delivery and sustaining health gains.

In a speech given to the National Democratic Party (July 2005) in the Upper Egypt governorate of Suhag, President Mubarak suggested that a better health service would need to incorporate all of the elements of Egypt's health provision and their components into one system within the ambitious period of five years. The focus would be to upgrade and streamline the health insurance

▼ Revision has been made to the school curriculum, but not enough to support the child-centered activity approach

Box 4.4: The need for integrated programs to promote health



Some examples of overlap illustrate the advantages of an integrated program:

- **water and sanitation**: The combination of safe drinking water and hygienic sanitation facilities is a precondition for health. The Ministry of Health and Population (MOHP) can advocate for full and quality coverage, train its service providers in the relevance of water and sanitation, cooperate in pilot programs and demonstration models as interventions for better health. It can also provide information about water born diseases and the risks of poor sanitation, water shortages and water quality for policy planning (see Chapter Nine).

- **public works**: Dredging canals, covering sewers, improving access to remote areas, providing efficient solid waste disposal, expanding awareness on the need for clean environments are not necessarily the purview of the MOHP. But as health-related programs, they require closer cooperation between MOHP and other bodies to be able to direct energies beyond limited curative services and narrow health promotions and into prevention measures that address causes rather than symptoms.

- **education**: Promoting health awareness in school curricula, amongst teachers and administrators, and through the media (particularly radio and television to reach the poor) can, for example, reduce diarrheal disease by focusing on hygienic practices and simple dehydration measures, or highlight the elements of a balanced diet, or the damage caused by smoking. At a more ambitious level, it can give instructions to local communities on how to construct simple but effective latrines (see Chapter Nine) or how to convert rice stubble into building material for inexpensive housing (see Chapter Eight).

- **nutrition**: The MOHP can promote a health intervention that would meet the nutrition needs of poor children through the provision of balanced meals that include milk and proteins in all public sector schools. The Ministry has already focused on providing micro-nutrients and food supplements such as iron, vitamin A and iodine and should eliminate the current rations of dry biscuits, helva (halawa), and flavored and sweetened drinks that have very little nutritional value. An effective partnership between health, education, and supply ministries, combined with the oversight of communities and parents could insure the success of this essential pro-poor health intervention. A private sector fund for the provision of free meals for poor schoolchildren could be promoted and managed through a transparent not-for-profit organization with a board of businesspersons.

Source: Maha El Adawy, Background Paper, EHDR 2005.

component which covers the present Health Insurance Organization (HIO); extend the Family Healthcare Fund to all of Egypt's governorates; and create a new insurance scheme for citizens not covered by the current scheme. Further, primary healthcare units would be increased, and the services of state-owned hospitals improved.

The President asked for more private sector participation and investments so that combined state and private efforts would meet the treatment and medication needs of all citizens, particularly the poor and the needy.

This interconnected approach, promoted at the highest level of political commitment, will require additional time and effort to link the work of more than one ministry so as to increase synergies, enhance efficiencies, reduce duplication and waste, and go a long way towards eliminating disparities in healthcare provision.

The special needs of the poor

Concentrations of poor populations are mainly in rural areas. Upper Egypt is the home of almost 41% of all the poor, and from a health sector perspective rural Upper Egypt shows the slowest and least progress in improving its health outcomes. It is anticipated that many Upper Egypt governorates will fail to achieve the Millennium Development Goals (MDGs) at the governorate level because of the poor performance of rural areas. But why is this so? Interventions needed to improve the health outcomes in rural Upper Egypt are acknowledged, available, tested and cost-effective.

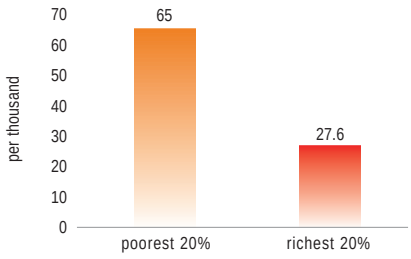
It is clear that Upper Egypt, in general, and rural Upper Egypt in particular have the highest mortality rates for children. Figure 4.1 shows discrepancies in infant mortality by economic status in 2003 while the national average was 44.7 infant deaths twelve months old or younger per 1,000 live births. Figure 4.2 illustrates the under five child mortality rate by residence for 2003.

The differences between Upper Egypt and the rest of Egypt, as well as between the rich and poor is not only in health outcomes. Those differences are illustrated in population based health indicators related to utilization of the services. Figure 4.3 shows an illustrative example of the MDGs indicators. However, poor health and nutrition outcomes are produced by households and communities and not just by flawed health services. Slow progress in rural Upper Egypt cannot be blamed on absent health services alone but is the outcome of interacting factors.

Some services narrowly targeted

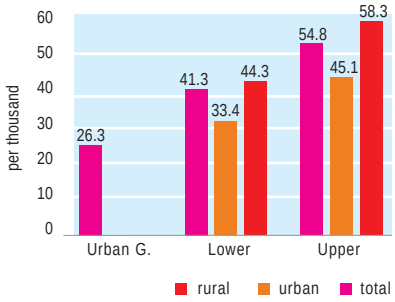
It becomes clear that health services have been too narrowly conceived and fail to address the dynamics that produce poverty and ill-health. In the past, Egypt addressed many of its health

Figure 4.1: Discrepancies in infant mortality by economic status



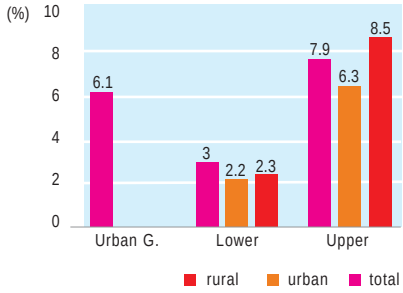
Source: MOHP (2003), Egypt Interim Demographic and Health Survey

Figure 4.2: Infant mortality by place of residence



Source: MOHP (2003), Ibid

Figure 4.3: Percenage stunting in children under five years by residence



Source: MOHP (2003), Ibid

problems by targeting a specific disease. An example is the success in markedly reducing the prevalence of what once was endemic schistosomiasis (Bilharzia) Box 4.5.

The above example of an intervention by disease or geography illustrates the capacity of Egypt's health system to reach the poor when goals are clear, the medical tools and technicians available, and national awareness campaigns are used to prepare the recipients. To achieve similarly successful programs requires a comparable focus, adequate resources and better dissemination of information. However, these types of intervention are specifically targeted and as such address one out of many heath needs.

An integrated approach

Currently, Egypt's public health system uses a combined strategy of providing free services and targeted insurance schemes.

Primary health care services are offered free of charge including the medications at the primary health care facilities. In addition, hospital services in public hospitals are free for the non-insured. Changing this established expectation as a 'right' will be met with resistance from both providers and beneficiaries. The fact that a large proportion of people seek care at private facilities and that both poor and rich pay significant amounts out of pocket for health services does not automatically mean that they would be willing to pay for public facilities. There is a need to change the public's attitude towards free public health services if these are to continue. This can only come about if the services themselves are upgraded and brought up to a standard that cancels the necessity of using private services.

Egypt's health insurance system is meant to provide financial protection through risk pooling and protection from catastrophic illness that can push people into poverty (see Box 4.6). The many regulations for health insurance include five laws and one ministerial decree. Further, insurance does not cover the whole population and leaves out the most vulnerable. Insufficient revenues for the HIO, the main body responsible for insurance constrains it from providing adequate services to its members, and these deficiencies in service provision push the insured to pay out-of pocket for private services (EHDR 2004, National Household Survey 2002, and Governorate of Suez Survey 2004). The annual health insurance budget deficit is estimated at LE 200 million. Budget deficits are likely to increase with Egypt's changing demographic profile and the expected increase in the elderly population. The HIO acts both as a financier and provider of services. This dual responsibility increases managerial costs and does not allow for proper monitoring, with consequent administrative loopholes and petty corruption as a result of poor supervision.

International experience indicates that effective insurance policies rely on a separation between funding, and service delivery. A central fund maintains a balance between revenues and expenditures, pays out directly to the various bodies responsible for health care and manages the balance sheet in accordance with market

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Understanding that health outcomes are a result of many interlinking factors is the basic requirement for improving health delivery

Box 4.5: Bilharzia: A successful targeted program

The schistosomiasis (Bilharzia) control program used a multi-dimensional approach that included not only early detection and treatment of cases by a single dose oral drug but also by spraying canals to kill the causative agents of the disease, and by using massive health education campaigns in schools and through the mass media. The disease is now reduced to below endemic levels, and it is expected that in time, its complications such as the high rates of bladder cancers and hepatic (liver) problems will also be greatly reduced. However, the older, less effective injection treatment and the complications of schistosomiasis continue to impact on the health of the poor and require lengthy and expensive treatment. Although the target in this approach was the disease itself, the poor in rural Egypt were the prime victims.

Source: Maha El Adawy, Background Paper, EHDR 2005.

Box 4.6: Social health insurance

The Health Insurance Organization (HIO) is the largest health insurance body in Egypt and currently covers around 50% of the population. It was established in 1964, in the governorate of Alexandria, to provide coverage to workers and employees of the public sector with the assumption that it would grow to cover the whole population within ten years. However, fiscal and political obstacles hindered its expansion. In 1975, new health insurance legislation (Laws 32/75 and 79/75) expanded insurance to all government and public sector employees with contribution from employer and employee. Law 79 included articles to cover pensioners and widows who choose to contribute to the scheme without any obligation from the original employer and with no co-payments, but excluded dependents of employees. In addition, a school health insurance law became effective in the early 1990s and quickly expanded to cover all school children from pre-school to the end of secondary schooling (The School Health Insurance Program, SHIP). The HIO has been running a budget deficit resulting from increased costs of health services while price of services were kept fixed since 1964, as well as because of the very high administrative costs of running the organization. In 1997, the Minister of Health and Population issued a decree covering pre-school children. The HIO is considered as an independent governmental body but its Chairman is appointed by the MOHP .

In addition to the HIO there are some private health insurance companies but their coverage does not exceed one percent of the population. The MOHP has created a pilot project for governorate level Family Health Funds (FHF) to purchase primary health care services from public, non-governmental and private providers through district provider organizations, but their experience is not yet well documented. The FHF are currently financed from donor money and from the Ministry of Finance. Beneficiaries pay specified contributions for family membership on an annual basis in addition to co-payments for some services and for pharmaceuticals.

Source: Maha El Adawy, Background Paper, EHDR 2005.

▼ Current political thinking proposes to cover the whole population with a social health insurance system

considerations. Health administrations do not directly contract out for external services. This task is assigned to specialized bodies — frequently at the local level — and are also responsible for validating invoices and audits, and managing the database related to patients.

Health insurance is seen as an essential financing mechanism which uses public-private partnerships for funding and service delivery. Citizens are expected to contribute to costs (annual subscriptions or tax contributions) against receiving the service. All or some medication is sometimes subsidized for target social groups.

Best case health insurance for the poor

Innovative welfare delivery approaches such as that applied by Iran (Box 4.8) have targeted the poor and markedly reduced the rich-poor gaps while improving the overall national health outcome. State supported treatment, the provision of employment opportunities to all medical graduates, and a culture of dependence on the MOHP are just a few of the obstacles that need to be faced.

Current political thinking proposes to cover the whole population with a social health insurance system, under a unified law aiming at achieving equity in access to and financing of health care through the elimination of existing disparities in health outcomes and the provision of quality services to the whole population, especially disadvantaged groups. This ambition will need a number of reform measures:

At the national level, a phased strategy would require a revision of the legal framework and administrative structures as well as decentralization measures to transfer responsibilities away from the center and to localities. An integrated system would also assume that the Ministry of Health and Population aims beyond targeting

morbidities to forestalling the conditions that produce these morbidities. One proposed measure is to integrate health data and needs with other non-health sector programs.

The decision of who pays for health services and how is a political one and will determine if the poor will or will not be exempted from financial contributions and whether provided with all or some services free or at a low cost by other means, or if a minimum universal package should be developed for all.

This report also proposes a number of initiatives at various levels to improve current conditions:

Provider incentives

Providers, particularly physicians, show a more rapid turnover in rural Upper Egypt than elsewhere. They – as physicians elsewhere in Egypt — prefer a more lucrative urban private practice and frequently also try to keep their government jobs. The reason is that a private practice ensures a sustainable income and additional social status. However, working in the government, although poorly remunerated with a larger numbers of poor patients, nevertheless ensures a minimum constant income and benefits at retirement.

It is mainly new medical graduates with limited experience who accept state appointments for services for the poor. Some countries share in this problem and have succeeded in overcoming it by relying on trained community workers at the district or village level, (see Box 4.6) while others give higher pay or greater incentives to physicians in the poorest areas. Other systems add a component of client satisfaction or performance to the incentive systems. The MOHP health sector reform initiative seeks to collect financial contributions from beneficiaries of the services for the family 'file' and co-payments for medications and some services.

Incentives need not be financial only. Other measures include better physical conditions in the shape of clean and well-tended clinics that are properly equipped with basic medical tools and medicaments, free housing, attractive promotion criteria, or limited period contracts. Opportunities for training, research and other avenues for career advancement could also be considered.

Community and NGO contributions

The role of NGOs to date is limited to helping provide basic services and undertaking health education. Both they and community agents can provide public awareness and help in co-financing services, for example by setting up a revolving fund that can cost share with clients who need services that require fees. The can also play a greater role in oversight to ensure that the basic package of services is indeed provided free of charge, and that the quality of care is up to standard.

Catastrophic illness can push people into poverty

Accountability mechanisms

One proven technique to raise quality of services is by enhancing community participation. Paying the providers based on defined performance indicators empowers the clients, even if payments are minimal. Service upgrade would benefit from the creation of a 'Citizen's Health Charter' that is prominently exposed at all health facilities, and which clearly spell out the level and quality of services the users can expect as well as the redress mechanisms if services do not meet certain quality standards (see EHDR 2004). Provider pay and incentives at levels other than that of the physician need to match market levels to prevent health care staff from moonlighting or taking on second jobs. New regulations under the supervision of the localities could also be introduced to control absenteeism, and fight petty corruption.

Affordable pharmaceuticals

Egypt has a flourishing and competitive pharmaceuticals industry but still imports some drugs or their components. The price of pharmaceuticals is increasing in the global markets, making it difficult to produce medication at a reasonable cost and within the budget of the poor. Drug prices were once controlled but under current trade conditions this is no longer possible. Alternative means to supply affordable generic drugs with limited mark-ups is for MoH or HIO to enter into long-term supply contracts which entail huge savings for buyer and producer. Cost saving measures could be made by rationalizing ministry procurements and supply of drugs. Cost savings could include a limit placed on the present

Box 4.7: Nursing as a career

Egypt suffers a severe shortage in the number of nurses in hospitals and public clinics. There are about 276 nurse for every 100 thousand population, which is a relatively low ratio compared to international levels, which are 425 nurses per 100 thousand population.* Shortage is more severe in the governorates of Upper Egypt. The Education for Egypt Foundation has now launched a US$6 million initiative to educate university graduates to become qualified nurses. It remains that local nursing schools — often for reasons of culture — are not working at top capacity and where each year, despite the transfer of nursing graduates from other parts of Egypt, there is an unmet need for hundreds of additional nurses.

The Cairo-based Center for Development Services (CDS) — a branch of the Near East Foundation, and a research NGO — has also initiated a project to enhance the standard of nursing in the Upper Egyptian Governorate of Aswan. The project had a two-pronged approach: first, raising the technical skills and capacities of nurses, nursing supervisors and teachers in nursing schools to improve the quality of services, and second, providing imaginative community means to increase enrolment in nursing schools, and thereby also to address staffing shortages.

The project was implemented over three years, with funding and support from a variety of government and non-government agencies, chief amongst which was Egypt's Sawiris Foundation for Social Development. Among the main achievements was the training and subsequent hiring of 174 nurses in various hospitals and health-related institutions and the creation of a core team of 20 nurses to serve as future trainers. Training focused on delivering the technical, social and ethical standards of the profession to students Project staff developed nursing quality assurance measures to be implemented in hospitals, and piloted these measures in one major hospital in Aswan.

The project also succeeded in combating taboos surrounding the nursing profession and changing the predominantly negative image of nursing. By and large, it is a female profession, and reluctance to allow girls to become nurses is mainly due to traditional values against women working in close proximity to men (doctors and patients), in locations at a distance from their homes. Activities to address these issues included intensive work with local NGOs and associations to raise community awareness and respond to concerns; encouraging more pro-active recruitment measures by the boards of nursing schools, and a wide-ranging media campaign to publicize the importance of nursing, stressing the positive aspects of the profession to the public. Success was demonstrated when a large number of students from villages that were completely devoid of nurses applied for enrolment at nursing schools, the number of first-year applicants rising from 170 to 535.

In recognition of its contributions, the project earned the Center for Development Services Agfund Award in 2004. Similar packages are currently being implemented in the Qena and Suhag governorates in Upper Egypt as part of a plan to introduce the project to all parts of the country. The cost of a job created through the project was below LE4,000 (approximately US$ 690.0), and included the development of technical curricula currently being tested for approval by the Ministry of Health & Population and Faculty of Medicine, Cairo University. It is expected that replication to provide guaranteed employment will be at an average cost of LE 1,750 (approximately US$ 300.0) per job created.

Note: * A study of OIC countries published by the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRTCIC) placed the figure at 20 nurses per 10 thousand persons in 2000, the last year for which data are available. (http://www.sesrtcic.org/statistics/data/subjdef.shtml).
Source: Near East Foundation (2005), Center for Development Services.

▼ **The price of pharmaceuticals is increasing in the global markets, making it difficult to produce medication within the budget of the poor**

wastage incurred by selling the full commercial pack of medication. In countries such as Britain patients are sold the exact amount of medication prescribed, apportioned by the pharmacies.

The two-level approach for the poor

Pro-poor policies require:

1. improved access to quality health services;
2. a means of providing them with security, particularly financial security, to protect them against chronic or catastrophic health conditions, as described below:

Targeting the poor. Targeting is a process of directing public resources towards a specific group of people to achieve a policy objective. Programs which target the poor but are delivered to the population at large have very often failed to reach their target population. The Egyptian health insurance scheme is a good example. Figure 4.4 shows that GoE subsidies in the health sector support the richer segments of the population more than the poorest.

Since social health insurance requires methods of organization to collect individual or group contributions, the very poor are usually left out. Those are the people who are not in formal or in organized occupations, the unemployed and housewives. Targeting therefore needs to be specific and resources must consciously be earmarked to the target population. Some leakage is always expected and should not be a deterrent.

Precise targeting can promote cost-effectiveness and would allow the government to reduce poverty more effectively at a lower cost. Universal coverage, on the other hand, may be too costly to implement. The GOE must weigh the implied equity in adopting universal coverage in comparison to the benefits expected from targeting the poorest, such as in Upper Egypt, and the effect each level of intervention would have both on resources and outcomes.

The most common sources of financing health care in Egypt are out-of-pocket (61%), followed

Box 4.8: Pro-poor health policies: The Islamic Republic of Iran

The success of the Iranian primary health care program in addressing the health of the poor has been acknowledged internationally. There were great disparities between rural and urban areas in health outcomes. As a result improving the health of the poor was emphasized as a health policy goal in the 1980 Constitution, and over the past twenty years or so Iran has succeeded in significantly reducing disparities, and improving the health status of the population as a whole.

The health systems made it a priority to target the poor. Resources were redistributed in favor of the rural populations, and by 2002 more than 16,340 health 'houses' or units were created, each serving 1,500 inhabitants. The units cover almost 84% of the rural population and the remaining population is covered by mobile health units. The health 'houses' have direct connections to higher levels of services and the means to transport people when and where necessary. Emergency obstetric care is offered around the clock.

These units are the first level of contact with the rural population and they provide basic health services. Each is staffed by a male and a female health worker, selected by the local community leaders. They are required to have had some basic education and are given two years of training to become *behvarz* or community level health workers. The training is followed by extensive on-the-job training. The *behvarz* have helped Iran to overcome the problem of medical professionals who are unwilling to be posted in rural areas.

At the level of the health house the *behvarz* keep track of the population using a simple and effective method of data collection and tracking individuals in the community to ensure complete coverage by services and a continuous flow of information to the central levels of each province. The program has been successful as it helps early identification of medical problems in families, particularly with child and maternal health, refers to higher levels of services when needed, and provides and follows family planning services. The infant mortality rate dropped from 120 per thousand live births in rural areas in 1974 to 30 per 1,000 in 2000 and maternal mortality dropped from 370 per 100 thousand to less than 44 for the same period.

The wide rural/urban gaps have thus been drastically reduced in services such as use of contraceptives. The direct contact established with beneficiaries has played a major role in the success of the Family Planning program, with a drastic reduction in fertility rate in both urban and rural areas. In brief, Iran has used a comprehensive primary health care model to identify problems and provide practical solutions, re-distribute and re-allocate resources where needed, involve the community, and establish a good referral system.

Source: Mehryar et al (2003): Addressing the Health of the Poor

Programs which target the poor but are delivered to the population at large have very often failed

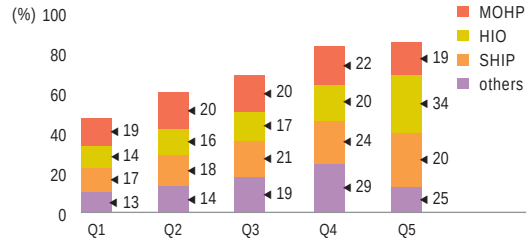
by the Ministry of Finance (MOF) and donors. The MOF generates resources from taxation and makes them available to MOHP. A good financing policy for the poor should aim to protect them from paying health care cost at the time of seeking services. This would provide them with security, particularly if they are protected from paying for catastrophic medical episodes. Recent studies have shown that the poor are increasingly seeking outpatient care in private facilities (EHDR 2004) which are perceived as providing better services, and are therefore incurring costs out-of-pocket that cut deeply into their budgets.

Health Insurance. The main challenge for a successful health insurance system is its financial viability and sustainability. To ensure risk pooling and the continuous flow of funds to cover the needs of the poor, the system must secure funding sources either through progressive taxation or alternatively through compulsory contributions from the entire population both rich and poor. It also should not allow for any group to opt out of the system — although scaling by income would be necessary. The current system does not provide room for progressive premiums based on household income. In the FHF, everybody pays equal amounts and only the very poor may be exempt on a case-by-case basis. In the HIO, students regardless of their social background or residence, pay equal amounts for SHIP and Law 32 puts an upper ceiling to the person's contribution.

Contribution should be mandatory, regardless of willingness to use the services. Those who wish to turn to other services must look at their contribution through the lens of social support to the less advantaged. Some countries that have successfully implemented this model provide more than one package of social health insurance, a basic package that would address the main health problems offered at a minimal cost or exempting the very poor and additional packages with more services and benefits at higher prices for those able to pay more.

Sustaining a successful program could also include a free choice of provider and incentive

Figure 4.4: Subsidy to health care by provider and income quintile



HIO = Health Insurance Organization
SHIP = School Health Insurance Plan
MOHP = Ministry of Health and Population

Note: Q1 refers to poorest 20%, Q5 refers to richest 20%
Source: MOHP (2004), Egypt Health Sector, Reform Strategies Document

payments for those providers who give quality services — measured for example, by number of patients. The system must also have a mechanism for monitoring provider performance and allow the discontinuation of the services of the non-performers. The above parameters would be essential to achieve financial sustainability of the system and equity in access to quality care. Using the family health model currently piloted by the MOHP could be an entry point to gradually reach the whole population as originally planned. For the poor, the state could provide targeted transfers that help them buy insurance coverage.

3. Social Security

Like any social insurance system, the Egyptian system could be characterized according to the method of funding, the way pensions are determined, and the entity responsible for administering the funds.

Egypt's social insurance system was changed substantially following the July 1952 revolution to become a widely stratified and universal system as a fully funded scheme[1] whereby contributions are collected from employees, deposited in a pension fund, invested, and finally used to pay pensions. However, the system is now only partially funded since it is increasingly dependent on financial support from the Treasury in fulfilling its pension obligations.[2] Determining the value of pensions is based on defined benefits, meaning that pensions represent a certain percentage of the average monthly salary an employee earns during a certain number of years of his/her service (in Egypt, this is represented by the last two years of employment).

The system in Egypt is entirely state-run, controlled and administered by the Insurance Fund for Government Employees (former National Authority of Insurance and Pensions) in cooperation with the National Authority of Social Insurance, which are both affiliated with the Ministry of Insurance and Social Affairs (MISA) through two funds:

1. the Government Sector Fund (GSF) which deals with civil servants and government authorities employees, and
2. the Public and Private Business Sector Fund (PPBSF) which deals with all other categories of the population (e.g. public and private sector employees, employers and self-employed persons, Egyptians working abroad).

There are several limitations in the social insurance system the most significant of which is the high contribution rates,[3] especially those paid by employers, which represent 26% of the basic salary and 15% of the variable salary[4] (see Table 4.4), which is one of the reasons responsible for the extremely high evasion rates. This is evidenced by the fact that about 30% of private sector enterprises do not pay contributions for their employees at all or restrict their payments to some of them only.[5] Furthermore, 40% of private sector employers and employees contribute a percentage of official salaries far below their actual wages (Helmy 2004). Conversely, those working in the government and the public enterprise sectors are socially insured. This lack of social insurance and other non-wage benefits in the private sector are part of the reason people still seek government jobs and the security associated with them (ERF, 2005).

Cost sharing

One of the proposals of the EHDR 2005 to overcome the consequences brought about by the high contribution rates is a cost sharing mechanism whereby the government would shoulder part of the contributions paid by employers as social insurance. The primary targets are Small and Medium Enterprises (SMEs) — since they absorb over eight million workers (a third of the labor force), and youth (for example, under 30

1. Here, contributions are collected throught employee working years, deposited in pension funds, invested and repaid to employees as pensions.
2. The Treasury contributes to pension payments given the inability of pension funds to cover new added pressures such as annual indexing of pension values; non-contributory pension schemes; poor investment strategies; non-entitlement of funds to returns on their bank deposits; and increases in the early retirement rate (1996+), reducing contributions and increasing number of pensioners.
3. Drawbacks include constraints on investment of funds (only through the National Investment Bank), the weak financial sustainability of the system in the long run, and the high evasion rate (Helmy, 2004).
4. High contribution rates are mainly attributed to the broad coverage of the social insurance scheme.
5. Rates in Egypt are extremely high compared to Tunisia (7.37 %), Algeria (7.5 %), Morocco (7.93 %), South Africa (none), Lebanon (8.5 %), Israel (2.29 %), United States (6.2 %), Chile (none) (US Social Security Administration, 2004).

Table 4.4: Social insurance contribution rates under different laws

Law No.	Contributor	Old age, disability, death	Health insurance, maternity	Work injuries	Total	
					Basic salary	Variable salary
Law 79/ 1975	Employee	13% basic 10% variable	1% basic		14%	10%
	Employer	17% basic 15% variable	4% basic	3% basic	26%**	15%
	Government	1% basic*			1%	
	Total	31% basic 25% variable	5% basic	3% basic	41% basic	25% variable
Law 108/1976	Employer/self-employ				15% of chosen pensionable salary	
Law 50/1978	Egyptians abroad				22.5% of chosen pensionable salary	
Law 112/1980	Insured persons				LE 1 per month	

* In addition to covering any deficit faced by the National Authority for Social Insurance in paying pensions

** This also includes 2% of the basic salary, which is collected by the government towards unemployment benefits for those who are 'temporarily and forcibly unemployed', due to circumstances such as the burning down of the workplace

Source: Helmy, O. (2004), 'Pension System Reform in Egypt,' Egyptian Center for Economic Studies, Working Paper No. 94

years of age) — in order to induce them to be productive, formalized and reap social security benefits later on.

The main problems this policy intervention will address are the current public sector crisis and the volatility and insecurity of the private sector. The aim is not just to reduce unemployment, but to create an environment where the informal private sector has incentives to become formal and provide security and where people are encouraged to move from the public to the private sector. This could occur through a shift to change existing cultural perceptions, which have so far portrayed the government job as being the ideal occupation in terms of security and respectability.

Through proper education and training, pension support, and formality, SME workers will be given the respect granted to government employees.

The advantages of such a policy intervention:

- first of all, it represents a potential job creation mechanism since it offers employers a wage subsidy;
- second, it forces workers to save, thereby bringing about all the macroeconomic advantages associated with increased savings;[6]
- third, it is superior to granting unemployment benefits, which go to the white collar class and do not help the very poor. Therefore, it covers the uneducated and most needy, who have a right to be insured and supported;
- fourth, the increased formalization caused by this proposal would expand the tax base and contribute to cost recovery of the mechanism;
- most important of all, through the creation of a new cultural identity for SME workers, it potentially contributes to civil service reform by reducing the pressure to create civil servants, who represents a huge wage cost, not just to the government, but also to the economy in terms of the opportunity cost of employees sitting at desks doing nothing, when they could be productive elsewhere.

A window of opportunity

At present, Egypt has a demographic advantage[7]which represents an actuarial gift. A huge portion of the population will be paying social insurance contributions for quite some time before becoming beneficiaries. This presents the government with a window of opportunity for implementing social insurance reforms and activating a social cover as an element of social welfare and prudent financing for an aging population.

There are several measures that are vital for realizing the benefits of the proposed scheme:

- setting up privately managed insurance accounts independent of the General Authority for Insurance and Pensions;
- establishing insurance accounts at the governorate level to promote decentralization;
- the policy could be complemented by training subsidies to form an accreditation package. This might take place by utilizing and upgrading existing low-quality training centers;
- providing employers and employees with non-cash incentives to subscribe to the system.

▼ **For the poor the state could provide targeted transfers that help them buy insurance coverage**

6. One of the major engines of growth in South East Asian countries has been savings, a significant portion of which were compulsory.
7. At the beginning of 2004, the % age of the population under 30 to the entire population was over 65% (CAPMAS, Statistical Yearbook).

Table 4.5: Projections of contributions under proposed social insurance scheme, 2006-2015

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Insured workers (thousands)		2,133	2,166	2,191	2,208	2,219	2,223	2,243	2,267	2,295	2,331
Workers' contributions (millions)	Best case	627.0	680.7	735.7	792.3	850.9	911.5	981.4	1,057.0	1,139.3	1,229.6
	Worst case	618.7	648.9	677.9	705.7	732.7	758.9	790.8	824.8	861.4	901.1
Government's contributions (millions)	Best case	604.6	656.4	709.5	764.0	820.5	879.0	946.3	1,019.3	1,098.6	1,185.7
	Worst case	596.6	625.7	653.7	680.5	706.6	731.8	762.6	795.4	830.6	869.0

Source: M. Salem, Background Paper, EHDR 2005

For example, insurance funds could be used by the contributors as collateral for loans and mortgages. Finally, all measures should be accompanied by better governance and transparency, to instill trust in public policy.

A huge portion of the population will be paying social insurance contributions for quite some time before becoming beneficiaries

This scheme is complementary to the measures included in the Poverty Reduction Action Plan (PRAP) pertaining to social safety nets and employment generation. These measures include the reform of micro-credit organizations and programs, upgrading training institutions and strategies and raising the contributions paid by casual workers under the 112/1980 Social Insurance Law. The proposed policy is also complementary to the World Bank strategy, which includes a component on social safety nets. The strategy includes better targeting of transfers according to income levels and geographical location, increasing government social spending, and institutional development (Economic Research Forum 2005).

Actuarial analysis of the proposed policy intervention

In this section, we conduct an actuarial analysis, estimating the costs to the government and benefits of the policy, represented by the contributions made by the government and employees, respectively (shown in Table 4.5).

Employee contributions are a benefit since they represent savings and provide funds available for investment. Since the targeted segment of SME workers is those in the 15-30 age bracket, they will not be eligible for pension payments for the next 30 years, meaning that during that period, the policy will result in a surplus.

Sectors included in estimation

Manufacturing, electricity, trade, transport, finance, and services, construction and mining.

Assumptions

- Average real wage = LE 175[8]
- Annual increase in basic salary = growth rate GDP
- Best case = 7%
- Worst case = 4%
- subscribers to the social insurance system are those aged 15-30 (based on projections made by the EHDR)
- the targeted SMEs are those in the informal sector which is equal to 84% of total SMEs.[9]
- the government splits contributions evenly with employers so that each party contributes 13.5% of basic salary and 7.5% of variable salary
- employee contributions are 14% of the basic salary
- the number of workers per SME is 2.7 workers

Projections

These are made under two scenarios reflecting different growth rates of SME enterprises:

1. best case scenario: 1.97% annual growth rate
2. worst case scenario: 1.3% annual growth rate.

It is obvious from Table 4.5 that because workers contribute a higher percentage of their salary (14%) than the government (13.5%), there is a surplus measured by the difference between the contributions of each in both scenarios.

As to the cost to the government, at least part of it will be recovered through the decline in the number of young government employees, who will be encouraged to move to the private sector. Another source of cost recovery will be the increase in tax revenues with the expansion of the tax base associated with formalization. The expected increase will be generated in the SME sector (see Chapter Six).

8 . Estimated from figures published in El Mahdy, A. and M. Amer (2005), 'Egypt: Growing Informality 1990-2003', in Tony Avirdan et al. (eds.), Good Jobs, Bad Jobs, No Jobs, Global Policy Network, Economic Policy Institute.
9. Calculated from figures published in El Mahdy, A. (2002).

4. Integrated Package for Ultra-poor Families

The social service deliverables covered so far in this chapter are universal programs for the poor. What follows here is a proposed deliverable in the shape of an integrated package that is specific to ultra-poor families.

Research has shown that poverty, illiteracy/low educational attainment and poor health as well as family disintegration are features of the ultra poor. Observers have also noted that family poverty requires interventions at many levels to effectively impact all family members. Very poor families need more than a simple income subsidy. They need the sustained support of social services so as to be able to access these services effectively. Families also need supportive mediation to deal with non-responsive personnel in the functional services.

EHDR 2005 proposes a program for one million ultra-poor families. The program is not conceptualized as a safety net but as a way to extend social rights to families living in dire conditions of poverty and to connect these families to the services that the state is in principle making available to them. The Egypt program is modeled on the Chilean project Chile Solidario (Box 4.9). The program does not offer any new services and does not merely aim to subsidize the income of these families. It is based on a principle of mutual obligation and contractual commitment. In return for a monthly stipend, families are contractually obliged to adhere to the criteria listed in Box 4.8. If they fail to adhere to these criteria they drop out of the program. If they are successful in completing their contract they are connected with programs already made available though state and non-state bodies which offer credit, employment, or other income generating opportunities. By completing their contract families gain a priority access to these programs.

The key to the success of the program is the creation of a highly professional and independent cadre of social workers who are the real catalysts for change. A substantial budget needs to be committed to screening, recruiting, training and supporting these agents of social development. Egypt has a large number of social workers and nearly all publicly administered services and programs have a social worker position. However, the profession of social work is state run and has become routinized and somewhat undermined. The program requires a new cadre of social workers who are self-starters and well-paid.

Poverty interventions are required at many levels to impact all family members

Can solidario be operational in Egypt?

Family selection

Developed countries measure economic condition of beneficiaries of social programs through a direct evaluation of the family's income (means test). Egypt has a good data base — thanks to successive surveys — that can help develop a composite index for ultra poverty using actual and proxy measures. Income is the weakest of these measures. Rather it is suggested that families are recruited on the basis of capability (or human development) not income poverty. In Chile, they evaluate the 'need' of families based on 13 variables grouped in four principal factors: housing, occupation, education and income/assets. The measure considers the 'family' as the unit of reference, defined as a group of individuals living together, recognized as a family group and that have some monetary income.

A tool that approximates the family's economic resources, using related variables, needs to be adjusted over time, since Egypt's economic evolution also implies evolution of those variables on the socioeconomic conditions of the families. For example in the past availability of TV was an indicator of wealth, but no longer. An effective targeting mechanism can be easily developed through the collaboration of various individuals and agencies who have been active in measuring and addressing poverty in Egypt. This program targets families and not individuals and therefore cannot use income alone to assess poverty.

Trained social agents

The great tradition of the professional social worker is an essential component to any effort to alleviate poverty. Social work is a highly specialized, ethically structured field with qualified professionals who are accredited and should be part of an independent professional body. Their work

Box: 4.9: Chile's Solidario targets the ultra-poor

The *Solidario* program's aims are to engage the participation of families living in extreme poverty in a two-year process that enables them to access public social networks and better living conditions. These families, marginalized due to their extreme poverty, are given guaranteed subsidies and preferred access to social promotion programs through the *Solidario Agreement*. In turn, they commit to meeting a minimum of 53 conditions. 160.369 families have been contracted (up to February 2005) in 336 municipalities engaging the efforts of 2400 family support agents.

Very poor families need the sustained support of social services

Families in extreme poverty

↓

Solidario: provides support through counseling and subsidies through a contract which protects families for a two year period at the end of which they are given a certificate of completion when they have fulfilled the conditions.

↓

Families integrated and independently participating in public social networks.

Chile *Solidario* addresses seven dimensions that encompass 53 basic life capabilities. The intervention strategy is based on the premise that extreme poverty can be lifted by realizing achievements along these principles.

The dimensions, adapted to the case of Egypt are:

1. **formalization/registration**: register in the civil registry, have ID card, military service situation is up to date and clear, adults place papers of ancestors in order, disabled family members are registered, titles/deeds of ownership are in order, businesses are incorporated;
2. **work**: no child under 15 abandons studies to work, unemployed family members get benefits/or training, at least one family member has steady work and is covered by some form of insurance, women's work is recognized and compensated;
3. **income**: family has access to income to cover their nutritional needs (food basket), members entitled to pensions/benefits are getting them;
4. **health:** family is registered at primary Health Unit, pregnant women are receiving/or have received ante-natal care, children under six are vaccinated, and have health care, women over 35 have health examinations/tests, women who use contraception do so under medical supervision, elderly have needed medical care, members with chronic diseases have medical supervision and medications, members who have disability that can be rehabilitated are participating in a rehabilitation program, family members are informed about health and self care;
5. **education**: young children are in a pre-school program, children under 15 years attend an educational establishment, children in pre-school, basic, or middle school have the resources they need to progress (books, pencils, shoes, clothes), children over 12 can read and write, children with disabilities are incorporated in an educational program, there is a responsible adult for a child's education who is in contact with the school, adults know how to read and write;
6. **family dynamics**: the whereabouts of all family members is known, family members meet on a regular basis, if a child is in jail she/he are regularly visited, in case of violence victims are part of a counseling/rehabilitation program, marriages are registered, family knows about community resources and programs that are locally available, resources and workloads are equitably distributed in the family;
7. **housing**: family has housing, clean water, sanitation, adequate system of energy, adequate solid waste disposal, can count on at least two livable rooms, each family member has bed/bedding, family is not threatened by eviction, house is sealed and ventilated.

Source: Hania Sholkamy, Social Research Center, American University in Cairo.

should not be confused with that of do-good communities and NGOs. In Egypt, social work has suffered from the perception that it is a low status profession. Currently, social workers and *raidat rifiyat* as well as other extension workers are seen as underpaid quasi-bureaucratic agents

An effective program such as the *Chile Solidario* requires that social workers become trusted and dynamic catalysts for change, able to create avenues by which people claim their rights. This new and unfamiliar leadership role for Egypt's social workers will require re-education as well as salaries that are commensurate with the responsibilities of the job, and which produce personnel who can organize and participate effectively in outreach and case management, and are not desk-oriented pencil pushers. They must be given a legal identity and the resources with which they can fulfill their obligations. These would include case finding, keeping centralized records, case management through the ability to discharge legal and administrative tasks, and the management of information on functional services.

Box 4.10: Budget estimates for ultra-poor families

To reach a targeted one million families estimated to be ultra poor, the program will recruit 355 thousand families per year for three successive years. Each family is supported for a two year period so as to enable the whole family to overcome the consequences and reason for their poverty. The program will be implemented with an experimental design to permit its monitoring and evaluation. Costs for research and documentation are included in the proposed budget. The ratio of social worker to family is 1:30, and a total of 15,000 social workers are employed.

- **Costs per family:**

monthly stipend LE 200 x 24 month =	LE 4,800
registration, processing, logistics, salary (overhead per family at 5%)	LE 390
Total cost	**LE 5,190**

- **Cost for one mil families**

3 year period	LE 5.2 billion
of which funds going directly to families	(LE 4.8 billion)
administration salaries, training, overhead, monitoring and evaluation	(LE 390 million)

Source: Hania Sholkamy, Social Research Center, American University in Cairo

An experimental design

An experimental design is suggested for the introduction of *Chile Solidario* to Egypt. Incorporating a research design to the program will enable the GOE to monitor and evaluate the program in a systematic manner. This will insure the quality of the program and the ability to track its impact and redirect its' trajectory to avoid waste in time and resources. This integrated package of services will 'chase' the ultra-poor and make sure that families are not condemned to poverty from generation to generation. The onus will be on intensive cooperation between social worker and the family for a proactive and assertive use of social services and public goods. ■

▼ Egypt has a good data base that can help develop a composite index for ultra poverty

Annex 4.1 Vision cost estimate for universal health insurance coverage

The GOE and the National Democratic Party are adopting a policy to expand social health insurance coverage to the whole population over the coming five years. Current coverage is at about 52% of the population. This means that the Health Insurance Organization (HIO) or a new body that will be responsible will have to at least double their current resources, keeping in mind that HIO is running a deficit except for the School Health Insurance Program (SHIP). In addition, the new enrollees are largely from those who live in poverty or do not have regular employment status to allow for the classical model of health insurance coverage where both beneficiary and employer contribute to the premiums that are complemented or matched from the government. The following is a very rough estimate of the additional budget required to introduce universal health insurance. Its limitations are that many of the currently insured do not use the services for reasons related to trust in the service quality and availability of pharmaceuticals; to the contrary, there are people who unnecessarily overuse the services. Moreover, the HIO is running a deficit which means there is some underestimation of cost. The package must therefore be reviewed and redefined to provide the most cost-effective services and at the same time be attractive to the public.

The National Health Accounts (NHA) exercise conducted by the MOHP in 2002 shows that HIO received 10.2% of total health financial resources, an amount of approximately LE 2.4 billion. For the sake of the cost approximation presented here, calculations assume that finances received by the various syndicates (0.2% or LE 45.5 million) and those for public firms (0.7% or LE 167 million) all go towards "some type of health insurance", then the current total insurance financing is in the proximity of LE 2.6 billion. Therefore, given today's financial requirements the insurance organization should require a total of LE 5.2 billion per year that is an additional LE 2.6 billion to cover the whole population. That is a total of LE 5.2 billions per year. This estimation comprises all finances including administration costs at current expenditures. The actual cost of services in hospitals is estimated to be around 77% (NHA 2002) and 23% for other associated costs.

The target is to arrive at universal coverage by 2010 (over five years) such that the additional cost is estimated at LE 0.52 billion annually on a cumulative basis during the first five years. The full cost of the vision target for the ten year period is LE 20.8 billion, where it is estimated based on a growth rate of population of 2.1%.

It will be necessary to pilot the proposed universal health insurance system. There is a need to test mechanisms of co-payments on one hand and of exemptions for the poor on the other. The program requires strict regulatory mechanisms and review of provider payment schemes. The insurance organization should be able to contract only with those who perform. Enrolment will have to be compulsory to ensure the risk pooling effect of health insurance. The initial costs of developing the system and creating the necessary information systems need to be estimated. Costs of infrastructure, maintenance, etc are also not included. Other healthcare costs include those of public goods, provided by the GOE (e.g. sanitation, food safety, chlorination of water, mosquito spraying, etc).

Regulatory mechanisms for provider contracting, payments, quality standards and defined packages must be clarified from day one unlike the old pattern of service provision. The limitation to this scenario would probably be the creation of two parallel health insurance systems and might hinder the compulsory enrolment and the risk pooling effects of health insurance if the whole population is following one scheme. An alternative is to provide a better equity discourse but, although it might not really incur more costs, since the amount of budget already goes to the service, it will need more efforts to restructure the system.

▼ Very poor families need the sustained support of social services

Sources of funding: Egypt is already spending its health resources inefficiently and can use may of its available health resources to expand the health insurance coverage. For example, the MOF and MOHP allocate around LE 1.7 billion for the program called "Treatment at the Expense of the State" that is supposed to target poor beneficiaries but has turned into a resource for public hospitals to provide regular treatment that is supposedly free. In addition, more than 60% of health care expenditures come from out-of-pocket household expenses. Therefore, contributions and co-payments would provide a source of financing to the new scheme if the process is developed in a trustworthy manner. Other sources would include the MOF, employers and both public and private firms providing an insurance coverage to their employees.

Cost of a basic package of primary health care

As a comparative costing exercise, elements of a minimum package of health care are here presented in order to consider when the final design and costing of the vision health insurance program is undertaken. An early study conducted by MOHP in collaboration with the European Technical Assistance team for the Health Sector Reform Program looked at the 2000-2001 data to estimate the costs of the basic benefits package (BBP) at the level of a family health center and family health unit and to compare the costs per activity and department. The study divided the items into different "cost centers" such as overhead, intermediate costs (pharmacy, laboratories, laundry, etc.) and costs related to patient services.

The costs of capital items (building, equipment and furniture, etc.) and their annual depreciation, fixed costs and variable recurrent costs of running a family health unit or center. It was found that almost 69% of recurrent costs go to personnel and 8.5% to drugs and medical supplies. The total cost was around LE 1,420,395 and the total investment cost at purchasing price was LE 2,361,349. Emergency services accounted for a total cost of 20.5% of the total after allocation of overhead and intermediate costs.

The package has four main components namely child health, women health, health services for all age groups and public health services. The average cost per visit was LE 24.6 (range from LE 68.6 for women and LE 21.4 for all ages) and the average cost per treatment was LE 47.4 (range from LE 104 to LE 42.3). A word of caution while considering this study is that it is now five years old. It looked at health centers in the pilot for health reform in Alexandria and would be difficult to generalize from this data. In addition, prices of pharmaceuticals and medical equipment are changing. There is also a need to consider the cost of referral to higher levels of services.

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CHAPTER FIVE

Macroeconomic Growth under Two Scenarios

A vision for Egypt that aims at achieving the MDGs while ensuring overall higher living standards, improved efficiency and sustained, long-term growth must be based on a sound macroeconomic framework able to increase competitiveness and market efficiency. A review of macroeconomic policy is conducted, together with a modeling exercise which incorporates the proposed policy reforms, as well as the budget outlays required to implement the vision. Recent economic developments and the required reforms of the macroeconomic framework will be addressed, followed by a consideration of the required policies and measures to achieve the reformed macroeconomic framework and 'best case' scenario. A macroeconomic growth framework over the vision period fiscal years 2005 to 2015 is presented, and finally, the requirements for improved external competitiveness are addressed.

There are three objectives in building an aggregate macro model as part of the EHDR 2005. The first objective of this empirical exercise is to forecast economic growth in Egypt under two main scenarios: business as usual (BU) and best case (BC) scenarios over the ten year vision period. The second aim of the model is to check the feasibility and fiscal consistency of the proposed budget expenditure. The third objective is to simulate the effects of various policy options on the Egyptian economy and on growth.

1991 was a turning point in Egypt's modern economic history with the initiation of an economic reform and structural adjustment program

Formulating the two main vision scenarios involves specifying the trends and the growth rates of some key variables. As its name suggests, BU is mainly a continuation of the existing trend in the economy. It is a development of the 'status quo' situation where variables carry on their previously observed path. At the opposite end of the spectrum of this uninspiring scenario lies the best case vision which is analyzed here and detailed throughout the report. In fact, most of the elements of the best case scenario appear in different chapters of the report, whereas this chapter quantifies the interactions of the economy's aggregate variables.

1. The Macroeconomic Framework

In spite of the successful stabilization effort, started in 1991, inadequate macroeconomic management and delays in implementing structural adjustments led to the deterioration of the macroeconomic environment. These were evident in a slowing down of economic growth, increasing unemployment and a widening fiscal deficit. The situation was aggravated by a number of external shocks. Since 1998-99, GDP growth started to decline, largely due to the combined effect of the emerging markets' crises in East Asia, the Luxor terrorist incident (1997) and the sharp decline in oil prices in 1998. This was further aggravated by the global economic fallout from the September 11, 2001 attack in New York, which was followed by the war on Iraq and the resulting uncertain political conditions in the region.

The time is now ripe for a strong drive towards enhancing Egypt's economic growth via combined fiscal and monetary policies targeted at reducing unemployment without causing inflation. Many of the elements needed for rapid, sustained economic recovery have been put in place by the Cabinet appointed in July 2004. A bold series of economic reforms of the exchange rate system and to liberalize trade were implemented, and private sector confidence in the economy's prospects is building up. However, the challenges ahead are considerable. Output growth remains below the minimum required to absorb labor force growth, the financial sector is weak and government borrowing remains high, thus raising concerns about fiscal vulnerability and the crowding out of private sector financing.

From economic development to take-off

The year 1991 witnessed a key turning point in Egypt's modern economic history with the initiation of an economic reform and structural adjustment program (ERSAP) aimed at removing macroeconomic imbalances and promoting economic efficiency. This was designed through market-oriented strategies including the elimination of price distortions, relieving the government budget from generous and untargeted consumption subsidies, foreign trade deregulation, financial and capital market reform and the encouragement of foreign trade openness. While the program was successful in reducing both internal and external imbalances, its impact on economic growth has been disappointing as it did not raise average growth rate back to the pre-1991 levels, despite a modest recovery by the beginning of fiscal year (FY) 1993 and up till FY 1998. The major developments following this period include:

Growth rate of GDP. Growth has shown a declining trend since FY 1999, after the satisfactory performance following the stabilization program. The slowdown continued till FY 2003, hindered by a shortage of foreign currency, an inactive monetary policy, high real interest rates and a depressed regional and global environment. This contributed to keeping real GDP growth in the range of 3-4%, much below the Egyptian economy's potential. However, growth has exceeded 3.5% in 2003-2004, 5% during 2004-2005, and is forecasted to rise further to 6.0% in fiscal year FY 2006. The recovery has been driven by a rebound in tourism, increased exports of

goods and services and a moderate revival in consumption expenditures. Private consumption and investment should strengthen as personal and corporate tax rates are lowered. Confidence is improving as reflected by the surge in stock market activity and in the upgraded credit rating for Egypt from negative to stable (Fitch, and Standard and Poor's ratings).

A unified, flexible exchange rate since end 2004. Since the successful unification of the foreign exchange market under ERSAP, the Egyptian pound was freely traded with limited intervention by the authorities to maintain the rate pegged to the dollar. Moreover, in June 1994, reducing capital account restrictions further liberalized the foreign exchange market. In the aftermath of the Asian crisis, Egypt faced a severe deterioration in its trade balance and its capital account, accentuated by a decline in oil prices and in tourism revenues. Shortages of foreign currency continued and a black market reemerged. Interventions by the Central Bank (CBE) to maintain the peg between 1998 and 2000 resulted in a loss of about one third of Egypt's net foreign reserves. An adjustable peg system within a band was introduced. Between January 2001 and 2003, the Egyptian pound was devalued several times by a cumulative rate of 48% against the dollar, and the band was enlarged.

Finally, the Egyptian pound was floated in January 2003, after having been pegged to the dollar for almost a decade since ERSAP. Following some serious fluctuations, the black market rate converged towards the bank rate by the second half of 2004. In December 2004, the government formally launched an interbank market for foreign exchange among banks and flexibility in exchange rate setting was restored. Confidence in the convertibility of the Egyptian pound improved sufficiently for the currency to strengthen against the US dollar and other major currencies.

Improved external position. Since FY 1992, the surplus in trade in services for Egypt has helped to offset the trade deficit. The three large items of service exports have consistently been remittances from Egyptian workers abroad, Suez Canal dues and tourism. Export proceeds from goods and services grew further in 2004, and the surplus in external current account rose to 4.4% of GDP in 2003-2004 and is expected to rise further in 2004-2005. This mainly reflects improved competitiveness as a result of large real depreciation of the pound since 2001. Foreign direct investment (FDI) remains low and resident banks have been accumulating net foreign assets. Official international reserves rose from US$ 14.5 billion during 2004 to reach US$21.0 billion by the end of FY 2005 equivalent to 7.2 months of imports. Foreign borrowing has been negligible and total external debt remained stable at about US$ 29 billion or 31% of GDP at the end of 2004.

Inflation has subsided in 2005. As a result of the successful stabilization of the early 1990s, inflation was maintained at the single digit level. However, because of the pass-through effect of the large nominal depreciations of 2001 to 2003, inflation rose. Measured by the consumer price index, inflation remained close to 12% from May to December 2004, while the wholesale price index was 17% over the same period. Inflation started declining from the end of 2004, bringing 12-month rates of inflation to below 7% in early 2005, and is projected to decline further to around 5% in 2006.

Government borrowing remains high. Since the late 1990s, Egypt's fiscal deficit widened. This reflects the growth of recurrent expenditures and weak revenue performance. The fiscal deficit increased from 3% of GDP in FY 1999 to 6.6% of GDP in 2003-2004. It has been mostly financed through borrowing from domestic sources. Most of the borrowing was related to the National Investment Bank (NIB), investment arrears and suppliers' credit. General government borrowing continued exclusively from domestic sources through non-indexed bonds sold to financial institutions, including the CBE. Preliminary data suggest a continuation of these trends in government borrowing in 2004-2005. Total financing needs of the government are projected to rise further to 7% of GDP during FY 2005 on account of lower customs and non-tax revenues.

Under the current funding pattern of the budget deficit, public borrowing from the domestic

▼ **Confidence is improving as reflected by the surge in stock market activity and in the upgraded credit rating for Egypt**

banking system eats up domestic credit and crowds out the private sector, undermining its participation in economic activity.

Public debt is continuing to rise. Net public debt is projected to reach LE 350 billion by the end of June 2005 reaching around 70% of GDP. The outstanding external debt relative to GDP is relatively low. However, as a result of the recent increase in budget deficit, gross domestic debt has been increasing at an annual average of approximately 12% since 1998. This trend raises concern about the sustainability of the domestic public debt.

Modernization of government and increased private sector participation as key for achieving sustained economic growth

Currently, GOE debt continues to be mostly domestic (94.3%) against only 5.7% held in foreign currencies. In terms of maturity, 75.8% is long-term while 24.2% was short term in 2004. The cost and maturity are expected to remain unchanged over the fiscal years 2005 and 2006.

Banks carry credit excesses of the late 1990s. Credit to the private sector continues to decline in real terms, while most of the observed expansion of banks' domestic claims is to the government. Non-performing loans (NPLs) have been rising and provisioning continues to fall. The observed behavior of these indicators mostly reflects improved classification of old loans and strict enforcement of prudential regulations. In early 2004 a plan to restructure the NPLs of public enterprises was outlined and was presented as part of the latest financial sector reform program.

Key structural reforms of 2004-2005. The new Cabinet during its first year in office undertook several bold reforms. Transparency of economic policies has improved, the tariff structure has been reduced from a weighted average of 13.9% in 2000 to 8.0% in 2004, the number of tariff bands was reduced from 27 to 6% and all import fees and surcharges were eliminated in September 2004.

A new Income Tax Law was passed in June 2005. It includes a simplification of the rate structure, cuts in personal and corporate income tax rates, increased minimum threshold of taxable income and removal of untargeted tax incentives for new investments. Concurrently, plans to reform tax administration have been formulated.

Prices of subsidized fuel (diesel) were raised in September 2004 and tariffs on electricity in December of that year with a view to streamlining the budgets of economic authorities and directing them towards cost recovery. Government budget reclassification has been implemented to comply with international norms and a Treasury Single Account has been established.

A comprehensive financial sector-restructuring plan with a five-year horizon was announced in September 2004. It comprises mergers, sale of public sector shares in joint venture banks, resolution of NPLs of public and private enterprises, privatization of a state bank (Bank of Alexandria) and reform of the nonbank financial sector.

Privatization efforts have been boosted. Between July 2004 and March 2005, 17 non-financial companies were privatized, generating proceeds of LE 2.35 billion.

The authorities see the modernization of government and increased private sector participation as key for achieving sustained economic growth. Work to strengthen the monetary policy framework and to modernize government fiscal operations has also started. Although the government budget financing requirements still impose inflationary pressures on the economy, the macroeconomic framework is ready to support a take-off.

Medium term exchange rate and monetary policy. Achieving the BC vision targets requires sustained efforts in the areas of exchange rate and monetary policy, fiscal policy and public debt, financial sector reform and external sector management.

The establishment of the interbank market for foreign exchange marks a key step towards the consolidation of a unified flexible exchange rate system in Egypt. Continued favorable trends in the balance of payments and increased confidence would further support the stability of the exchange rate. However, over the medium and long terms, the CBE should tolerate random short

term fluctuations of the exchange rate and allow market forces to determine its level to maintain export competitiveness. Policy interventions in the exchange market should be restricted to abnormal conditions, which in turn, should be carefully identified.

Further progress in improving the focus of monetary policy and strengthening the technical capabilities of the CBE are warranted. Increasing interest rate flexibility and effectively anchoring inflation expectations under a flexible exchange rate are necessary. The monetary policy strategy needs to be clearly defined and implemented within a carefully designed medium-term framework prepared by the CBE. The general direction of monetary policy should be announced to provide guidance to the market and help anchor inflation expectations.

Financial sector reform. The financial sector reform plan considers reducing the number of banks to almost half and raising the market share of private banks over the next five years.[1] It also considers increasing private sector participation in the insurance industry, developing the mortgage market and consolidating regulations and supervision of all financial entities. Yet the mechanisms for resolving the non-performing loans of public and private enterprises have not been developed. Assessment of the quality of assets of the public sector banks and of their recapitalization needs is required.

External sector outlook and achieving external competitiveness. Egypt's external outlook has been improving since FY 2004, reflecting a moderately better export performance since the end of 2002. Supply of foreign exchange proceeds has been growing, supported by continued development of tourism, vastly expanding gas resources and enhanced Suez Canal traffic. IMF staff projections indicate that there is scope for real appreciation of the pound over the medium term (up till FY 2010) and that a slowdown in the pace of current account inflows could accommodate a non-oil import growth of about 7% per year while achieving a current account surplus over the same period.[2] However, the joint occurrence of external shocks involving oil/gas prices, Suez Canal traffic or tourism revenues, would weaken Egypt's external outlook and warrants an emphasis on increased external competitiveness and on implementing structural economic transformation towards increased exports of non-oil goods and services to reduce dependence on highly volatile and vulnerable sources of foreign exchange.

2. Best Case Macroeconomic Scenario[3]

Given the centrality of economic growth in the process of development, forecasts of economic growth have been implemented over the vision period for two settings: business as usual (BU), and best case (BC) scenarios. As earlier described, many of the elements required for achieving sustained economic recovery have been identified and indicators of economic recovery can be observed, and the model uses the actual performance of Egypt's economy over the past decades in order to project the two growth paths.

Table 5.1 (see over) compares between the key variables in BU and BC scenarios. In the case of the labor force, there is no difference between the two scenarios as the forecasted labor force over the vision period depends on the past birth rate which cannot be altered. Population, on the other hand, depends on the future demographic transition. It is assumed that the BC scenario involves a lower growth rate in population than the BU scenario, which is simply an extension of the existing trend in population growth.

Labor force is divided into employment — whether inside or outside Egypt — and unemployment. In the BC, employment is driven by the private sector and growth at 3.6% per year, well above forecasted grows of 3% of the labour force. The reverse is true in the BU, where unemployment remains at 11%. Government employment is another area of difference between BC and BU scenario. In the BU scenario, government employment will not be subject to major change. However, with the implementation of the civil service reform program, retrenchment of government employees is expected to reach 100

▼ **With the implementation of the civil service reform program, retrenchment of government employees is expected to reach 100 thousand per year**

1. Egypt's banking system currently consists of 54 banks: six state banks (56% of total assets), 35 joint venture banks (38%) and 13 foreign banks (6%).
2. Also see IMF (2005). ARE Staff Report for the 2005 Article IV Consultation, April 25.
3. For a description of the model, see annex to Chapter Five.

Table 5.1: Key assumptions of the two scenarios

	Best case scenario (BC)	Business as usual (BU)
Labor force	• Annual increment = 790,000 workers between 2005-2010 and decreases to 750,000 between 2010-2015.	• Same as BC
Population	• 77.7 mil in 2010, 83.8 mil in 2015 and 88.9 mil in 2020	• 78.9 mil in 2010, 87.5 mil in 2015 and 96.2 mil in 2020
Unemployment	• less than 6.0% in 2015	• Continue with the same unemployment rate of 11%
Workers abroad	• 5% of labor force	• 5% of labor force
Gov employees	• Decrease by 100,000/year	• Continue replacing attrition at the same rate
Literacy Rate	• Average growth 3% per year	• Growth 1.7% per year
Gross Investment	• Growth rate 11.4% per year	• Growth rate 6.6% per year
TFP growth	• 2% per year	• 0.6% per year
Net export	• Average growth rate 12% per year	• Average growth rate 7% per year
Current gov expenditure	• Average growth 1.7% per year	• Average growth 5.9% per year
Capital gov expenditure	• Average growth 6.6% per year	• Average growth 4.5% per year
Money growth (M2)	• 10% per year	• 12% per year
Tax function	• Shift in the intercept by 5% for the first three years of the vision, and then revert back • Marginal propensity to tax increases to 0.085	• No change in the function

Source: A Kamali (2005) Background Paper for EHDR

▼ **In the best case scenario investment is expected to grow at 11.4% per year over the vision period**

thousand per year via attrition. In the BC scenario unemployment is forecasted to drop to less than 6%, which corresponds to approximately 1.5 million employees by 2015. In contrast, the BU scenario entails a continuation of the same unemployment rate of 11% which was observed in the 1990s.

Labor force does not only respond to changes in quantity but also quality. Quality is captured by the literacy rate which is a proxy for education attainment. Literacy is expected to grow on average by 3% per year in BC scenario. The growth in literacy is expected to follow an exponential growth path where it starts at a rate much below 3%, consistent with the observed BU trend of 1.7% per year, and then increases over time to exceed 3% near the end of the vision period. Although not explicitly entered in the model, productivity of labor (quality) is also significantly enhanced under the BC scenario on account of the gradual elimination of the surplus in government employees such that the share of employment in government declines from 29% (2003) to 17% of total employment in 2015 (Chapter Six).

According to the BC scenario investment is expected to grow at 11.4% per year over the vision period. This number takes into account the unutilized investment opportunities in Egypt, the ability to attract sizeable foreign investment and the potential development residing in the engines of growth sectors (Chapters Six and Seven). The growth rate of gross investment in the BU scenario amounts to 6.6%, a median of the growth rate of investment over the last three decades. Note that this percentage is higher than the average trend in investment observed throughout the 1990s, which was exceptionally low; however, it is much lower than the growth in investment recorded during the second half of the 1970s.

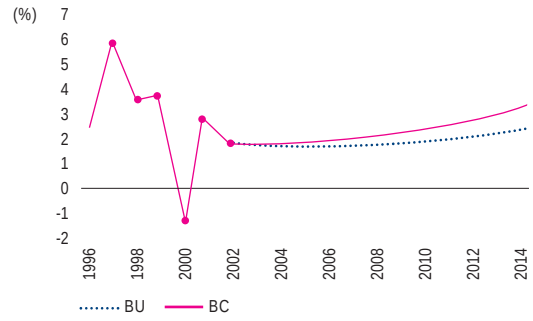
The last component entering the output growth equation is Total Factor Productivity (TFP). TFP growth in the BC is set at 2% per year; whereas it drops to a mere 0.6% per year in the BU scenario. The growth in TFP of 2% is compatible with the recent cross-country studies analyzing sources of growth.

The remarkable growth experience of East Asian countries, starting in the mid 1970s until the second half of the 1990s, was found to be mainly driven by accumulation of physical capital rather than a buoyant TFP growth.[4] In fact, having TFP grow by 2% per year matches some of the most successful trends in productivity growth in emerging markets.[5] As for the BU, TFP growth is set at the average level observed in the 1990s until the beginning of this decade, a rate of 0.6% per year.

Investment is assumed to be financed by both domestic saving and foreign saving. Domestic saving is endogenous and depends on the value of output. Foreign saving, in turn, is exogenous

4. Nehru, V. and A. Dhareshwar (1994), New Estimates of Total Factor Productivity Growth for Developing and Industrial Countries, Policy Research Working Paper # 1313, World Bank.
5. Senhadji, A (2000) *Sources of Economic Growth: An Extensive Growth Accounting Exercise*, IMF Staff Papers, Vo. 47 (1).

Figure 5.1: Foreign savings as a percent of GDP



Source: A Kamali (2005) Background Paper for EHDR

and equals negative net exports. According to the BC scenario, net exports will grow at an average of approximately 12% per year, close to the rate of growth in investment; whereas in the BU, foreign saving will only grow by an average of approximately 7% per annum to reach 3% of GDP in 2015.

A modest improvement in foreign savings to GDP (Figure 5.1) is also obtained in the best case scenario, but the bulk of the impressive increase in investment is financed by domestic savings which climbs from the low BU level of 20% of GDP to a sound and sustainable 30% of GDP in 2015, driven by a rise in both government savings and private (households and business) savings. Reform policies to implement the proposed new social contract are responsible for the enormous shift in the savings function of the private sector, with the introduction and activation of several new savings instruments including social insurance in the small and medium enterprise sector, health insurance, and, above all, housing mortgages for those low income groups.

On the government side, the BC scenario entails current expenditure growth at a yearly average of 1.7%, and capital expenditure growth at 6.6% — to finance infrastructure and human development projects. The modest increase in current expenditure is made possible by the rationing of various components of current expenditure and the continuous retrenchment in government employment over the vision period. This is compensated for by a huge increase in employment generated in the private sector (see Chapter Six). In contrast, the BU scenario emphasizes more current expenditures which grow at an average of 5.9% per year, and less capital expenditures which grow at 4.5% per year.

The finance of government expenditure comes from two sources: real revenue and seigniorage. In BC scenario, real revenue is expected to increase due to several factors. First, lump sum tax is set to increase by 5% in the first three years of the vision period due to acceleration in the process of privatization.[6] Second, with the forecasted high income, income tax, which is a percentage of income estimated to be 8%, is expected to follow the upward trend in income. Third, the ongoing tax reform which encompasses all aspects related to taxes from tax administration and procedures to tax collection is expected to raise the marginal propensity to tax from 8% to 8.5% pushing tax revenue even higher. This favorable non-inflationary source of government revenue will limit the excessive use of money printing and contain the growth in money supply at 10% per year.

In contrast to the propitious government budget outlined in the BC scenario, BU depicts a path of government budgeting that is characterized by a continuation of the endemic problems plaguing the budget for decades. The growth in total expenditure under BU is higher than the BC, averaging approximately 5.7% per year, as opposed to a growth rate of 2.5% in the BC; moreover, the majority of government expenditure under BU is in the form of current expenditure, which expands at a rate of 5.9% per year. This image of government expenditure is consistent with the past trend of wasteful allocation of government resources and the huge number of civil service employees.

The government budget is also squeezed by the drop in the real revenue side compared to the BC scenario since the modest increase in output is reflected into an equally modest increase in tax revenue. This necessitates more reliance by the government on seigniorage to cover the deficit which is reflected into a higher growth rate in money supply: 12% per year compared to 10% in the BC scenario.

The BC scenario has current expenditure growing at a yearly average of 1.7%, and capital expenditure growing at 6.6% to finance infrastructure and human development projects

6. Practically, what is referred to as lump sum tax is in fact non-tax revenue; however, since tax and non-tax revenue are represented by one tax function, we refer to the component that does not depend on income as lump sum tax which is a proxy for non-tax revenue.

3. Proposed Fiscal Policy and Fiscal Sustainability

The BC scenario applied to the fiscal sustainability projections assumes consistency with the GDP growth projections and that the required reforms are implemented at a continued rapid pace. Average GDP growth through 2015 is 7.3%, rising gradually from 5% in FY 2005 to exceed 7% in 2010 and 9% in FY 2014 and thereafter. The inflation rate will keep declining from 10% in 2005 to 6% in 2006, 4% in 2007 and 3% in FY 2008 and the years after. The nominal exchange rate is fixed at LE 6 per US$ and the nominal interest rate on domestic debt is the sum of the nominal interest rate on foreign debt, domestic inflation rate and a risk premium which, in turn, is set at 3% in FY 2006, but is assumed to decline annually by 0.1 percentage points. Imports in US$ will grow by 20% in FY 2006, and then at a decelerated rate to have an average of 15% for the whole projection period. This will result in an increase in the share of imports to GDP from 14.7% in FY 2004 to 22.6% by 2015.

▼ The system of across-the-board subsidies is under revision to be replaced with better targeted social programs

Decisive and long overdue tariff and income tax reforms have been implemented since September 2004. Tax administration reform has been designed and is progressively being undertaken. These reforms are now setting the stage for fiscal sustainability.

On the revenue side. According to the BC scenario, tax administration is assumed to improve, tax evasion to decline and the tax base to broaden more significantly than in the BU case, where current trends have been projected with little amendments, as reflected in Figure 5.2. Consequently, tax revenues from individuals and private corporate firms will be higher than in the BU case. Sales tax revenue will gradually increase until FY 2011 and stay constant afterwards. Corporate tax from the Egyptian General Petroleum Corporation (EGPC) and the surplus transferred to the treasury are also expected to increase because of continued price increases away from the currently subsidized oil products and towards cost recovery. This increase is assumed to reach on average 15% per year starting FY 2006.

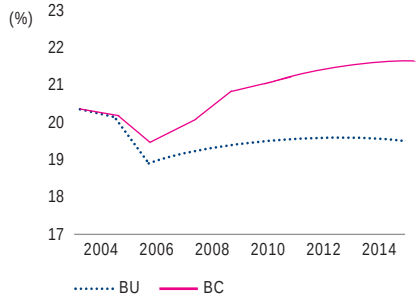
Nontax revenues. These will slightly decline compared to the BU case on account of a decrease in property income following the expected serious implementation of the privatization program. On the other hand, grants to the government are expected to increase in fiscal years 2006 to 2009 reflecting the US$0.25 billion annual grant of USAID committed to financial sector reforms.

The warranted changes compared to the BU case would increase the total revenue-to-GDP ratio over the projection period 2006 to 2015 from 0.1% in FY 2006 to 2.4% in FY 2015.

On the expenditure side. The implicit subsidies on fuel have been moved on to the 2006 budget, and other implicit subsidies will be gradually incorporated into future budgets to increase the transparency of public spending. The government is increasingly concerned with the financial burden of the current consumers' subsidization program and its ineffectiveness in reaching the intended beneficiaries. The current system of across-the-board subsidies is under revision to be replaced with better targeted social programs. An example of such programs is the provision of a balanced meal to schoolchildren currently under consideration at the Ministry of Education. The revision of the social assistance program under the Ministry of Social Affairs is another such scheme. It is expected that the overall subsidization program will be revised in view of increasing its efficiency, improving its targeting towards intended groups and raising cash transfers to the poor. Increased decentralization of the program would enhance its efficacy and decrease its budgetary burden. Subsidies are thus assumed to decline at an accelerating rate.

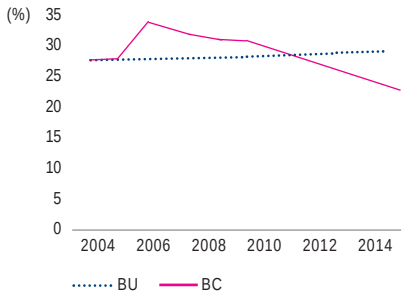
Administrative reform is also essential, since the Egyptian civil service hinders production and investment. Reform will require simplification and modernization of laws and regulations, particularly those related to economic activity. The BC scenario also requires the size of the civil service, which currently employs over 5.4 million people, to be reduced, together with an improvement of the wages and salaries structure, enhancement of public servants productivity and discipline. The basic salary scale must be

Figure 5.2: Projected total revenue to GDP Ratio



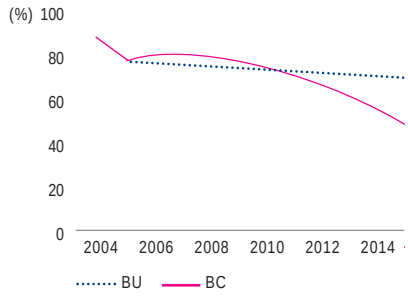
Source: S. Shawarbi, Background Paper for EHDR 2005

Figure 5.3: Total expenditures and net lending to GDP



Source: S. Shawarbi (2005) Ibid

Figure 5.4: Debt-to-GDP ratio



Source: S. Shawarbi (2005) Ibid

revised, particularly at the lower end of the structure, to bring it in line with realistic standards of living and to minimize corruption. Tying promotions and remunerations to actual performance will ensure a competitive civil service and attract qualified people. Finally, civil servants should continuously be provided with training and capacity building opportunities. According to the BC scenario, the government wage bill share in total public spending will be substantially reduced. It is projected to decline to less than 5% of GDP by the end of the vision period (2015) and further by 2020, down from 7.7% in FY2006, which takes into account the unprecedented 20% increase in wages announced in May 2005.

Defense spending. It is assumed to gradually and slightly decline to 2.47% of GDP in FY 2015, down from 2.6% in FY 2004.

Pensions. They are to grow at the minimum nominal rate of the previous three years rates (6.6%) instead of the growth rate in FY 2004 (8.2%), which was a year of particularly high inflation.

Capital expenditures. Financial sector reform is estimated to cost LE 35 billion in addition to US$4 billion, whereas other sectors' projects, as agreed with the World Bank, are projected to increase government foreign borrowing by US$2 billion over the period FY 2006 - FY 2010.

Additional spending. To implement the proposed new 'Social Contract', all the supplementary expenditures needed (Annex 1.1) have been incorporated in the fiscal BC scenario as detailed in other chapters. Assuming that an average total additional budget of LE 18.1 billion[7] is needed every year, budget expenditure would increase gradually between FY 2006 to FY 2010 from LE 5 billion to LE 20 billion, respectively, and stabilize thereafter at LE 20 billion (at constant FY 2010 prices).

Overall, these projected fiscal adjustments are expected to bring down total expenditures and net lending to GDP by 6.8 percentage points over the projection period up till FY 2015 as reflected in Figure 5.3.

Public spending — current and capital — must be further reallocated towards areas that directly and indirectly impact growth, principally health, education, infrastructure, the development of science and technology and environmental protection. On the revenue side, tax exemptions have been eliminated for new investments. Income tax rates have been lowered. Yet the general sales tax should be converted into a value added tax that promotes output, exports and investment while limiting final consumption rather than only increasing government revenue.

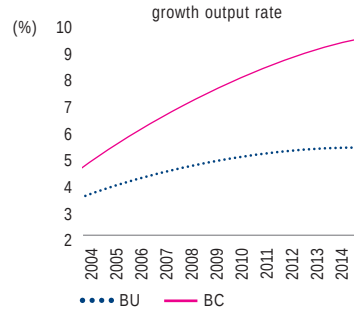
The main purpose of proposed fiscal adjustments is to reduce the borrowing needs of government, while promoting its role of regulator, and enhancing its provision of public goods to support poverty reduction and foster sustained growth.

The combined effect of previous projections of public revenue and expenditure shares to GDP, and of reduced government total borrowing reflect an improved public debt situation, declining progres-

▼ **Public spending must be reallocated towards areas that impact growth, principally health, education, infrastructure, science, technology, and environmental protection**

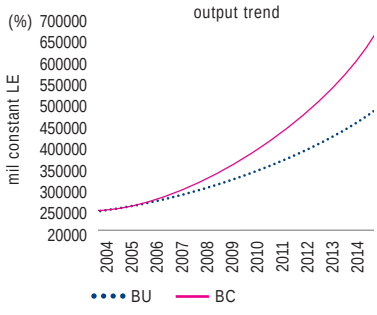
7. See additional budget required for the vision in Chapter One, Annex 1.1.

Figure 5.5: Projected output growth rate



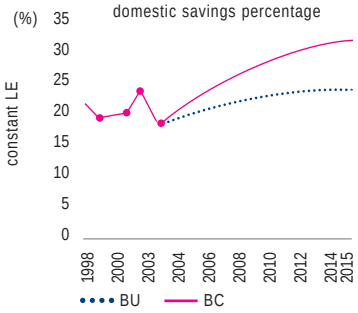
Source: A Kamali, Background Paper EHDR 2005

Figure 5.6: Projected output trends rate



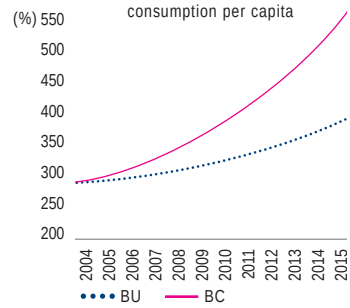
Source: ibid

Figure 5.7: Domestic savings percent GDP



Source: ibid

Figure 5.8: Projected trends in consumption per capita



Source: ibid

sively over the projection period to less than 50% of GDP, as indicated in Figure 5.4.

According to the broadest definition of public sector, which incorporates the fiscal accounts of the General Authority of Supply Commodities (GASC), the intra-governmental transfers from Social Insurance Funds (SIFs), and the Economic Authorities net debt, public domestic debt would decline from 69.6% of GDP to 39.5% by the end of the projection period (FY 2015).

▼ **Egypt has a low level of savings, averaging less than 20% of GDP, hindering investment**

However, if fiscal management remains unchanged after the new tax law is implemented starting FY 2006 (BU scenario), and public revenues and expenditures shares to GDP remain around their previously observed levels, the overall budget deficit to GDP ratio will not significantly decline and the burden of total public debt on the economy will continue to weigh heavily (as shown by the dotted line in the Figure 5.4). The high levels of government borrowing and growth of public (domestic) debt recently recorded are constraining GDP growth and impeding increases in private productive investment. This emphasizes the urgency of fiscal consolidation in order to lower government borrowing and reduce the share of government debt to GDP, as reflected by the solid line in Figure 5.4.

4. Economic Growth: Alternative Visions

In this section, we compare the results of the two scenarios of the report - BC and BU - in terms of output, economic growth, savings rate, government deficit, and welfare.

Output and economic growth. Forecasts indicate that there is a large difference between BC and BU in terms of economic growth (Figure 5.5). The growth rate, whether in BU or BC, is not even throughout the period; rather it takes an upward trend. The average GDP growth in the BU scenario amounts to 4.7% but it increases in the BC scenario to an impressive 7.3%. In fact, the forecast based on the BC scenario predicts that output will double in 2013-2014 relative to its 2004 level; however, in the BU scenario output does not double even by the end of the vision period. This difference is also revealed even more clearly by comparing output in both scenarios (Figure 5.6).

A similar trend is observed by comparing GDP per capita over the vision period between the two scenarios. In this case, the difference comes from two sources: the numerator (output), which is higher in BC compared to BU, and the denominator (population), which is lower in BC to BU.

Savings rate. Traditionally, Egypt has suffered from a low level of savings, averaging less than 20% of GDP, and hindering investment. More recently, there has been a deficiency in investment, leading the savings rate to surpass the rate of investment for the first time in more than 30 years. According to the BU scenario, the savings to GDP ratio shows there is only a modest increase to reach a maximum of 23% in 2015 (Figure 5.7).

However, under the BC scenario, there is an impressive increase in the level of savings as a percentage of GDP throughout the vision period until it levels off at around 30% of GDP in 2015. This figure compares favorably with the ratios observed in high savings countries in East Asia. One should note that savings as an absolute figure increases at an average of more than 7.5% annually in order to achieve this observed increase in the saving to GDP ratio.[8]

This acceleration of the savings to GDP ratio is due to the rise in both the private (household) savings as well as the government savings. The increase in private saving is attributed to the escalation in income associated with BC, as well as with the activation of the credit market for SMEs and lower income households (especially mortgage for housing, see Chapter Seven). On the other hand, the rise in government savings is the outcome of the amelioration in the budget stance as a result of the increase in government revenue relative to government expenditure.

Government deficit. Forecasts indicate that the government deficit in the BC is much lower than in the BU. This is expected since government spending is higher and government revenue is lower in BU compared to the BC scenario. Government spending is higher in the case of BU because the rate of growth of current expenditure is high relative to the BC, but the opposite is true for capital expenditure; however, the government budget starts from a situation where current expenditure is much higher than capital expenditure. On the revenue side, since tax revenue is directly related to income, it follows that when income is high as in the BC scenario, the government is capable of generating higher tax revenues which, in turn, reduces the government deficit over the vision period.

Welfare. There are many measures to assess societal welfare, one of which is consumption per capita. This measure relates consumption directly to welfare since as individuals consume more, they are able to satisfy more of their wants and needs. As depicted in Figure 5.8, the trend in consumption per capita in the BC scenario is much higher than that in the BU scenario. This difference widens over time to reach its maximum at the end of the vision period. In fact, in 2015 the consumption per capita in the BC scenario has increased by almost 85% compared to the 2004 level, whereas consumption per capita forecasted under the BU scenario only increases by 30% at the end of the vision period. Comparing the level of consumption per capita in the two scenarios, it appears that under BC scenario the average Egyptian has 40% more income than under BU. This implies that the welfare of Egyptian society will improve dramatically under the BC scenario.

Exports and investments

Although Egypt was among the first countries in the MENA region to adhere to an open-market, export-promoting strategy, it has neither succeeded in achieving high export performance and growth, nor has it attracted significant levels of foreign direct investment (FDI).[9] Enhancing Egypt's competitiveness, improving the investment climate and boosting exports of goods and services require action on several fronts:

Boosting exports and improving the investment climate. The September 2004 tariff reform decreased the average nominal tariff rate (excluding beverages and tobacco) from 21.3% in 2000 to 12.1% in 2004. Tariff dispersion also declined and average weighted tariffs decreased from 13.9% in 2000 to 8.0% in 2004. Effective rates of protection (ERPs) which capture the net effect of tariff structure of outputs and inputs have also declined, with the manufacturing sector continuing to receive the highest level of protection in the Egyptian economy, compared to agriculture and mining. Within manufacturing, the level of ERPs declined for all industries, except the leather and leather products industry. However, the protection pattern is very uneven, with chemical and basic metal industries receiving less than 4% protection, whereas transport and clothing and footwear industries are receiving ERPs of 20.4% and 31.6% respectively. Thus, although improved, the tariff structure continues to give relatively uneven support to the various activities. The question here is if the pattern of protection conforms to Egypt's comparative advantage, both static and dynamic.

▼ **Trade liberalization has increased the exposure of Egyptian production activities to international competition**

8. This is since the denominator, i.e. the GDP increases at an average of 7.3 per annum.
9. See ref 5. H. Kahei-El-Din and A, Ghoneim in ERF (2004). Aslo see Galal, A. and A. Rafaat (2005). Also see Femise Network (2004). Egypt Country Profile, The Road Aheadfor Egypt, December. Also see Galal, A. and A. Refaat (2005). 'Has Trade Liberalization in Egypt Gone Far Enough or Too Far?' Policy Viewpoint no.16, ECES, June.

▼ The constraining business environment along with continued anti-export biased policies hinder promising export

Remaining impediments to exports and investment. Undeniably, trade liberalization has increased the exposure of Egyptian production activities to international competition, benefiting consumers and compelling domestic firms to become more efficient in order to survive. Furthermore, these trade liberalization measures have decreased the average level of tariffs in Egypt to levels closer to those in middle-income countries, which would suggest that they have similar degrees of openness (measured by the ratio of trade, i.e. imports plus exports, to GDP).

Nevertheless, the IMF database indicates that the ratio of Egypt's trade to GDP in 2003 was only 37.4% compared to the 54% average in lower middle-income countries which implies that there are domestic supply constraints which still hinder Egypt's export performance. Impediments facing exports and creating anti-export biases raise profitability of selling domestically above exporting, and includes structural factors and policy barriers.

Structural factors. Export performance and investment growth are constrained by limited export supply capacity, high production and transaction costs, shortage of skilled workers, high service costs and institutional and bureaucratic impediments to investing and exporting. Examples are an inefficient tax rebate scheme, delays in payment for export support, cumbersome customs procedures and inspection regulations (although much improved), delays in commercial dispute settlements, unofficial payments. Anticompetitive behavior in some markets, such as cement, steel and audio-visual production, is also a constraint. A competition law has been approved by Parliament, but has not yet been implemented. Finally, firms in Egypt continue to face constraints regarding entry, operation and exit that restrain their competitiveness in international markets. Recent reforms include easing business entry and reducing corporate taxation. However, obtaining credit, registering property and resolving insolvency are still more costly in Egypt compared to other middle-income countries. Policy barriers include anti-export bias of the tariff structure which although much improved remains distorting, particularly among manufacturing activities. Other barriers include insufficient access to export financing, absence of export insurance schemes, and the general sales tax which is not remitted to exporters. Export processing zones and qualified industrial zones have not yet achieved their expected outcomes in terms of investment, employment and export enhancement. The lack of information on external markets and export opportunities is another impediment to export promotion.

Regional trade arrangements are not fully exploited

Egypt, as a member of the WTO, has, since the 1990s, joined, a number of regional trade agreements (GAFTA, COMESA, the EU-Egypt Partnership, Aghadir), in addition to several bilateral trade agreements and is negotiating others (the US-Egypt Free Trade Agreement). The benefits of entering such agreements remain modest and neither the vision nor the rationale of Egypt's engagement in these regional trade agreements (RTAs) are sufficiently clear.

On the positive side, involvement in several trade agreements enhances Egypt's access to markets at various levels of development, in addition to upgrading quality standards of developed markets. On the negative side, there are difficulties in administering different rules of origin and diverse customs treatments related to various agreements. Adapting to different standards, laws and regulations may lead to delays in implementation.

The strategy should thus be to pursue WTO multilateral liberalization, while eliminating behind-theborders impediments to trade and investment and harmonizing rules and regulations with Egypt's major trading partners, the EU and the US. Egypt's vision for supporting exports should not be based on past export performance, but should rather be forward-looking and emphasize a number of other criteria, principally:

- backward and forward linkages with various sectors of the economy;
- encouraging integration in the value chain of world production, rather than focusing on producing fully processed products;
- unit labor costs and labor output elasticity should be important parameters to identify export potential (See Chapter Six).

Thus, moving further away from material based products towards skilled labor-intensive products and technology-based products should be encouraged. Shifting production structures towards high value-added activities by providing adequate incentives through policy and institutional reforms and upgrading production processes are required to benefit from existing RTAs and to integrate in the world economy.

Creating an enabling environment for exports and investment. Egypt's exports have been growing at an average annual rate of 5% over the period 1985-2000, while Turkey succeeded in raising its exports at an average annual rate of 10% and Malaysia reached the average annual rate of 15% over the same period.

Two key instruments for competitiveness and improved investment climate in Egypt are:

- a competitive exchange rate. The importance of exchange rate policy arises from being the only unconstrained tool under WTO rules. The monetary authorities should thus use it as an effective mechanism to reorient domestic producers to the export market. This is the major lesson of all successful exporting countries;
- credit and guarantee facilities. The Export Development Bank and commercial banks with the support of CBE should develop efficient systems of pre-shipment and post-shipment finance. The currency deposit scheme for exporters, when opening letters of credit should be abolished. The Export Credit Guarantee Agency needs upgrading and restructuring. Exporters support should not be restricted to large exporters but should benefit SMEs.

The GOE should implement further institutional and legal reforms, including temporary admission, duty drawback and rebate schemes; transforming the sales tax into a value added tax and reducing tariffs and indirect taxation further on inputs; conformity assessment procedures (includingtesting, certification, accreditation) to be further streamlined with international norms. Several impediments in port-related services have to be addressed. A revision of tariffication of telecommunications, and transportation and especially air freight would ensure their competitiveness with regional and international equivalents; The GOE could convert free zones intoexport processing zones, developing new export processing zones and creating industrial clusters; An increase in the availability of air and maritime transport to overseas markets and of ground transport to regional markets: alliances can be promoted with foreign trading companies.

The Ministry of Foreign Trade and Industry (MOFTI) and specialized agencies could together develop and coordinate programs for export promotion. These would include:

- identifying — in collaboration with chambers of industry — activities with promising export potential and designing policies that promote these sectors;
- linking producers to the international production network with an effective institution under MOFTI to link industrial SMEs to large firms domestically and abroad;
- effective use of RTAs in which Egypt is engaged. Making use of the different

Box 5.1: Export performances and policies: Turkey and Malasyia

Turkey used a combination of fiscal incentives (generous tax exemptions and subsidies) together with an efficient institutional infrastructure to promote exports. It also focused on disseminating, through various publications, information on investment and export opportunities as well as supplying exporters with useful information on marketing and export procedures. A major pillar of Turkish export policy is the provision of long and short-term finance to exporters through innovative and dynamic credit facilities.

Malaysia's export and investment promotion scheme was also comprehensive and multifaceted. It included offering generous financial incentives to Multinational Corporations (MNCs) and to domestic firms to begin or expand their export activities. Programs for promoting growth of exports in specific sectors were designed and implemented. The sectors were chosen according to growth of world demand for their products. It further relied on a network of public and private export promotion agencies, actively supported at the highest levels in government. A specialized agency was developed to link small and medium enterprises (SMEs) to the supply chain of MNCs. Finally, well targeted and generous pre-shipment and post-shipment export credit was provided.

Based on international experience, moving along complementary lines of action is essential. Such actions include providing adequate policy incentives and institutional upgrading to reduce the investment costs and the anti-export bias. Increasing quality and price competitiveness by upgrading production processes via technological change is also required. Provision of support to exporters should be implemented along the lines permitted by the WTO and hence excludes subsidization that was early provided in the Turkish and Malaysian experiences.

Source: Ahmed Ghonneim, Background Paper, EHDR 2005

▼ **The GOE should implement further institutional and legal reforms to cover the customs regime for exports**

Very little technology is developed domestically or is adapted to local conditions

cumulation of inputs mechanisms allowed under the EU-Egypt Agreement;

- augmenting domestic technology. Egypt's industry is based on imported technology. Very little technology is developed domestically or is adapted to local conditions. Creating the capacity to benefit from advances in science and technology is a relatively long-term process that involves developing appropriate institutions of technology, and promoting capabilities to acquire, adapt, develop and diffuse technology at the national and firm levels. This requires further integrating science and technology policies with a medium and long-term vision, and persuading the private sector that there are potential benefits to promoting and financing R&D. ■

Annex 5.1: Main Structure and Assumptions of the Model

The model is built on an accounting framework with few behavior equations.[10] Also, given its long-run nature, it is assumed that output in the economy is determined by the supply side where an aggregate production function resides in the model's core with various components of the model feed in and out of it. The aggregate production function has as factor inputs: capital and skill-augmented labor (adjusted for education attainment).[11]

According to growth accounting literature, output growth can be decomposed into growth in capital (via investment), growth in skill-augmented labor (via increase in the quantity of employed labor and/or increase in the quality of workers) and finally growth in total factor productivity (via gain in technical efficiency and/or technological improvement). However, the growth accounting technique needs estimates for output elasticities based on the past behavior of the economy. The modeling exercise consists of estimating econometrically an aggregate production function for Egypt and total factor productivity (TFP) over the last three decades. These estimates are used as a benchmark for the projection exercise and to check the consistency of the results with the ones obtained from similar country and cross-country studies.

Given the estimated output elasticities, investment, employment, and change in TFP figures for both scenarios, we can forecast the path of output (economic growth) over the vision period in the two main scenarios. These output figures feed back into the model in order to obtain, among other things, the consumption and savings of the household sector, which is a primary measure of the society's welfare, as well as the stance of the government budget so as to check with other exogenous variables the consistency and sustainability of the government sector.

The model consists of three behavior equations and 13 identities. The core equation of the model is an aggregate production function, with its econometrically estimated coefficients. GDP depends on these estimated coefficients, capital stock, employment, literacy rate, and TFP, which together generate forecasted GDP over the vision period. Both capital stock and employment have their own equations of motion which depict how these variables change over time. The forecasted aggregate output or GDP feeds into the various sectors of the economy in the following manner;

Government Sector: The government sector consists of a revenue side and an expenditure side. The revenue side is represented by a behavioral tax function with econometrically estimated coefficients. Government expenditure, on the other hand, is obtained from a public finance module developed by the World Bank that is capable of producing consistent and sustainable projections of current and capital expenditure. The difference between government expenditure and government revenue is government deficit, which enters as an item into a dynamic government budget constraint. This constraint states that the government deficit can only be financed through seigniorage (printing money) and/or accumulation of debt. Using the print shop to cover the budget deficit has a cost in terms of higher inflation. Inflationary finance is defined as the difference between the rate of growth of money supply and the rate of growth of real output, according to the quantity theory of money.

Household Sector: The household sector is presented by a simple behavioral Keynesian aggregate consumption function where household consumption is a function of disposable income, i.e. income minus taxes. The parameters of this consumption function, the most important of which is the marginal propensity to consume, are estimated econometrically using past data. With the forecasted path of output (income) under different scenarios, the model is able to generate different paths of consumption corresponding to each of the forecasted paths of output. In addition, one can use this forecasted trajectory of consumption to generate consumption per capita which is a basic measure of society welfare. Domestic savings is a residual from income after paying for household and government consumption.

Investment is determined exogenously as a function of the initial conditions and the prospects of investment in traditional sectors such as agriculture and housing as well as non-traditional sectors such as information technology and communication. Investment is financed by domestic and foreign saving. Foreign saving by its turn is set to be equal to net export. Investment flow does not enter into the aggregate production function directly but it enters as the main component in the

10. These are the aggregate production function, the consumption function and the tax function.
11. Literacy rate is used as a proxy for education attainment, which in turn measures the skill level of labor.

equation of motion of the capital stock. It is used to build the capital stock which is one of the two factor inputs that enter into the aggregate production function. The other factor input is labor. Labor in this context denotes employment and not the labor force. The labor force grows over time as explained in Chapter Six of this report. By definition, part of the labor force is employed (whether in the private or public sector), another part works abroad and the rest is considered unemployed. Given values for any two of these three parts, the third component can be obtained as a residual. In the implemented scenarios, the number of workers abroad is set along with the target unemployment rate and employment is obtained as a residual.

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● CHAPTER SIX

Targeting Full Employment

Chronic unemployment is one of the most serious problems facing the Egyptian economy today. The official unemployment rate stood at 11% in 2003, and declined to about 10% in 2005 (MOP). Meanwhile job creation is hampered by slow economic growth and poor education and training. It is estimated that GDP will have to grow by 6% to 7% to fully absorb the labor force, which is projected to grow by up to 3% per year for the next two decades. Much more will also have to be done, especially to help women and young job seekers, given their enormous pool of underutilized skills.

Egypt is undergoing its demographic transition and needs to explore every option to turn it into a window of opportunity. The EHDR 2005 vision foresees overcoming Egypt's employment generating problem by addressing the structural imperfections on the supply and demand sides of the labor market via reforms in the education and training systems, in business and agriculture extension services, and changes in incentives favoring SMEs rather than government jobs.

A comprehensive employment strategy based on sustainable growth, a higher employment intensity of growth, and improved training and skills is formulated. This chapter reviews the structure of Egypt's labor market and proposes six engines of employment growth that can together form the foundations of an 'equity plus growth' trajectory. Three of these engines, the SME sector and manufacturing and agricultural exports, are examined in this chapter, while Chapter Seven considers the service sectors of ICT as an employment generator along with tourism and housing.

1. Demographic Transition and the Labor Force

Recent shifts in Egypt's demographics[1] have resulted in an expanding and increasingly young working-age population. The 70% fall in infant mortality and 78% decline in child mortality over the past 30 years, have led to the present situation where 51% of Egyptians fall within the working age bracket of 15-64.[2]

About 35% of the working age population (15-64) is aged 15-24, and new entrants to the labor market are primarily from this age group. Although the youth population grew at an average rate of 2.9% between 1990 and 2005, its share of the population peaked at 21.5% in 2005 and its share of the labor force will fall to about 20% by 2050 (ERF 2004), all of which suggests that the pressure on the labor market will gradually ease after 2005.

Trends in labor force participation. The labor force is projected to increase by 790 thousand per year (2005-10) and 750 thousand (2010-15) to reach 30.3 million in 2015.[3] That, combined with the expected future increase in women's participation suggests that the growth rate of the labor force will exceed that of the working age population.[4] Three main factors — gender, age, and educational attainment — determine labor force participation, although urban/rural location and marital status also play a role. Overall labor force participation remained stable during the 1990s at about 47% of the working age population using the market definition of the labor force, and 59% using the extended definition.[5]

Table 6.1: Distribution of employment by sector (%)

Sector	1990	1995	1999	2000	2003
Government	22	26	27	28	29
SOEs	10	9	6	6	6
Total public	32	35	33	34	34
Private	67	63	66	65	64
Investment	1	1	2	1	1
Total	100	100	100	100	100

Note: SOEs= State-owned enterprises
Source: Calculated from CAPMAS, Labor Force Sample Survey, various issues

Trends in participation by age and educational Attainment. The participation of the young of either sex in both rural and urban areas declined between 1988 and 1998 as a result of higher enrolment rates in schooling. There is universal participation for the male 30-49 age group, while the participation rate of older males fell, especially in rural regions. The proportion of workers in the labor force with a secondary education or more is projected to increase from 60% in 2005 to 75% in 2020.

Employment and the changing structure of demand

Economic developments over the last 15 years have shaped the demand for labor. The principal characteristics of the labor market are:

High government employment. The civil service continues to be a major employer in Egypt: indeed over 42% of jobs created over the 1990s were in government administration. Of these jobs, teachers were the fastest growing occupational group, contributing more than half of government employment growth. The result is, as Table 6.1 shows, that the government accounted for 28.6% of all employment by 2003, up from 22.1% in 1990.

1. Egypt has recently entered the third stage of demographic transition, which is characterized by falling fertility and mortality rates. But this stage also means rapid growth in the proportion of youth, and a decline in the proportion of children, leading to continued growth in the working age population and a fall in the dependency rate. Economic Research Forum (ERF) and FEMISE Network. 2004. Egypt Country Profile, The Road Ahead for Egypt.
2. This is projected to reach 63.7% - 66.9% in 2015 (M. Osman ,2005), Background Paper prepared for EHDR 2005).
3. Ibid.
4. Between 1998 and 2005, the female labor force is estimated to have grown nearly twice as quickly as the male one.
5. The extended definition includes participation in subsistence activities, while the market definition excludes such activities. Estimation results are based on the special rounds of the Egyptian Labor Force Sample Surveys (LFSS) conducted in October 1988 and in October 1998 (See ERF, 2004).

There is a consensus that civil service reform, a reassessment of the number of employees in government and their reallocation from administrative to productive jobs in the delivery of services are urgently needed. Furthermore, redundant labor has led to low marginal productivity and overlapping job responsibilities, which raises the cost of conducting business to producers and investors, a situation that is aggravated by civil servants' low real wages which in turn encourages corruption. In addition, the current incentive and promotion structures do not effectively motivate workers, based as they are on seniority and personal connections rather than merit, performance, and productivity.[6]

Declining migration. Migration is currently accounting for no more than 1.2 million (5%) of Egypt's labor force. In the 1980s, Egyptians were in high demand in neighboring labor markets, but their skills have not progressed in line with modern technologies used in industry and services. Education and training policy should therefore be geared towards maximizing the eligibility of the work force to migrate. One of the outcomes of enhancing labor skills and productivity in this way is that it will allow sectors such as construction, ICT and manufacturing, to gain or regain their regional and international competitiveness.

While there is some concern over the potential loss of highly skilled personnel to foreign labor markets, in Egypt's case there are reasons to believe the economy will benefit more than it loses from emigration. Firstly, the Egyptian labor market has a surplus of educated people who are unemployed, and secondly, the examples of South East Asia and China show that entrepreneurial skills earned abroad benefit the home country. Moreover, the most recent literature on migration points to the significant externalities or indirect benefits gained by the labor-sending country, in the form of higher education levels (and hence rapid human capital accumulation) which is acquired by the young workforce in the hope of working abroad.[7]

One proposal is that the government support a continuous outward flow of young people trained in areas where other markets are deficient. The state would act as a guarantor of skills via accreditation and would negotiate the minimum terms of fixed-term contracts for Egyptian workers abroad. The pool of migrant employees created would constitute a dynamic resource of great benefit to Egypt through their exposure to the demanding levels of efficiency abroad, as well as their savings and remittances.

Table 6.2: Distribution of employment by activity (%)

Sector	1990	1993	1995	1997	1999	2000	2003
Agriculture	40.0	35.3	33.0	31.3	29.0	29.6	30.0
Mining	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Manufacturing	14.0	13.9	14.0	13.5	13.0	11.9	11.0
Utilities	0.8	1.0	1.0	1.2	1.0	1.2	1.0
Construction	6.0	6.5	6.0	7.3	8.0	7.9	7.0
Trade and tourism	9.0	9.8	10.0	12.4	14.0	13.2	13.0
Transport	5.0	5.5	6.0	5.8	6.0	6.5	6.0
Finance and real estate	2.0	1.9	2.0	2.4	3.0	2.9	3.0
Services	22.0	25.9	26.0	25.5	26.0	26.4	27.0
Total	100.0	100	100.0	100.0	100.0	100.0	100.0

Source: CAPMAS, Labor Force Sample Survey various Issues

Decline in share of agriculture and manufacturing, in employment. Agriculture's share of total employment fell from 40.5% in 1990 to 29.9% in 2003, and manufacturing also declined from 14% to 10.9% over the same period. This may be attributed to the considerable appreciation of the Egyptian pound over that time which inhibited expansion of tradable sectors. Private sector segments that grew most rapidly during the 1990s have been finance, insurance, real estate, trade, and tourism (see Table 6.2).

Factors affecting supply. There is a lack of correlation between educational outcomes and market demand. The fastest growing categories in the labor force in the 1990s were those holding secondary school degrees in technical and agricultural specializations; yet the growth in unemployment among these disciplines was even faster. Training systems suffer from low quality facilities, poor curricula, and teacher training as well as from the underutilization and mismanagement of existing training facilities.

Factors affecting demand. Non-tradable sectors are responsible for most of employment growth, and are thus automatically constrained by the size of Egypt's domestic spending power in these

▼ **Redundant labor has led to low marginal productivity and overlapping job responsibilities**

6. Handoussa, Heba, 2004. Egypt's Industrial Competitiveness at the Cross Roads. Paper Presented for the Conference 'Revisiting Egypt's Competitiveness' June, CEFRS and USAID 2004, Cairo, Egypt.
7. Oded Stark (2005), 'The New Economics of the Brain Drain: Analytics, Empirics, and Policy', IEA 14th World Congress, Marrakesh.

Table 6.3: Labor force, employment and unemployment, 1990-2003

	Labor 000	Employ. 000	Unemploy. %
1990	16,046	14,755	8.0
1995	16,968	15,0581	11.2
2000	18,900	17,203	8.9
2003	20,359	18,119	11.0

Source: CAPMAS, Labor Force Sample Survey, Various Issues

Table 6.4: Labor force, employment and unemployment by age distribution, 2003

Age groups	Labor 000	% of total	Employ. 000	% of total	Unemploy. %
15	1,453	7	1,011	6	30.4
20	2,774	14	1,739	10	37.3
25	2,487	12	1,950	11	21.6
30	4,862	24	4,650	26	4.4
40	5,156	25	5,145	28	0.2
50	3,128	15	3,125	17	0.1
60-64	499	2	499	3	0.0
Total	20,360	100	18,119	100	11.0

Source: CAPMAS (2004), Labor Force Sample Survey

Table 6.5: Labor force distribution by educational attainment and unemployment, 2003

Sector	Labor force		Unemployment	
	000	%	000	%
Illiterate	4,617	23	12	0.5
Reads and writes	3,799	19	15	0.7
Below intermediate	1,092	5	23	1.0
Intermediate	6,382	31	1,478	65.9
Above intermediate	1,009	5	146	6.5
University/higher	3,460	17	567	25.3
Total	20,360	100	2,241	100.0

Source: CAPMAS (2004), Labor Force Sample Survey

sectors. The formal private sector has been unable to compensate for the slowdown in public hiring; however, it is estimated that employment in the informal sector[8] grew from 2.4 million to 4.8 million between 1976 and the late 1990s, (equivalent to large 86% of private non-agricultural employment).[9]

High and increasing unemployment, especially among educated new entrants: Unemployment rose throughout the 1990s and reached about 11% in 2003. However it is likely that even this high figure underestimates the real unemployment rate. For example, the sharp reduction recorded in 1997 was due to a change in the definition of unemployment as opposed to an actual reduction.[10] The young, in particular, suffer from the highest unemployment rates by far (Table 6.4). If educational attainment is considered, we find the highest unemployment rates among those with an intermediate or secondary education and women (over 35%), followed by university graduates and graduates of higher institutes (above intermediate level).

Wages and productivity. Between 1982 and 1991, real wages fell at an annual average rate of 5.4% in the SOE sector and 4.5% in the formal private sector. This trend continued into the early 1990s, following the stabilization policies of 1991 and a period of relatively slow growth, but recovered somewhat in the latter part of the decade as SOEs' wages returned to 1978 levels, and private sector wages to 1976 levels (ERF 2004).

Poverty and the labor market. The link between poverty and unemployment is weak nationally and in the cities, indicating that the urban poor cannot afford to remain unemployed in the absence of unemployment benefits. There is, however, a positive relationship between poverty and unemployment in rural areas, and poverty is also higher among unpaid workers and the self-employed not hiring others, while occasional and seasonal workers are twice as likely to be poor than permanent workers.[11]

Casual work. An examination of the evidence indicates that those working in agriculture, mining, and construction are the most likely to be casual workers and to suffer from the highest incidence of poverty. In contrast those working in finance, electricity and the service sectors are less likely to be poor.

Egypt's labor institutions

Labor legislation. The new Labor Law 12/2003 addressed many of the problems with Egypt's employment regulations.[12] Employers have benefited from new rules governing the hiring and firing of workers while employees have gained more freedoms regarding collective bargaining and the settling of disputes.[13] Law 2003 also acknowledges the workers' right to hold peaceful strikes, emphasizes the importance of workers' health and safety, and subjects the employer to

8. The informal sector is made up of individuals working in small and micro-sized enterprises and outside establishments.
9. If informal employment is defined as including workers without social insurance or protection of legal work contracts, this percentage will rise. The informal sector absorbed about 65% of new entrants into the labor market in the late 1990s compared to about 40% in the mid 1980s. (ERF, 2004).
10. CAPMAS modified the definition in 1997 to eliminate from the unemployed those who receive an income from any source, regardless of their readiness of work or their search to it. Ibid.
11. ERF (2004).
12. The old law was more suited to a centrally planned economy. It prohibited the termination of job contracts for any reason other than grave misconduct, did not lay the ground rules for collective bargaining or provide appropriate dispute settlement mechanisms (Galal 2002a).
13. Syndicate membership in Egypt is generally limited to about 25% of the total workforce (4.5 million).

financial and legal penalties in case of non-compliance with such regulations.

Labor exchanges. In Egypt, labor exchanges are ineffective intermediaries between job seekers and providers. One of the main reasons for this is the monopoly the government has over the exchanges. Job creation could be boosted if private entities and NGOs were to manage labor exchanges as well as provide such services in extant youth centers and training facilities.

Wage policies. The new employment law also established a National Council for Wages, whose main functions are to set minimum wages and annual minimum wage and salary increases at a national level. However enforcement of the Council's decisions remains questionable as the wages, living allowances and wage increases of all government employees are determined by a centralized 'Certificates' Pricing' system. As a result of its inefficiencies, government and public enterprise often resort to temporary employment contracts that offer more autonomy over hiring.

Social insurance. The social insurance system in Egypt is a partially-funded, defined benefit, state-run scheme. A main drawback of the system is the high rates imposed upon contributors, especially employers, who are obliged to shoulder the bulk of their employees' payments (26% of basic salary plus 15% variable salary). The result is that about 30% of private enterprises do not contribute or restrict payments only to some so that employers and employees contribute at a level far below their actual wages.[14]

One proposal, as argued in Chapter Four, is for the government to lower the burden on employers and fill the gap itself. The aim is to increase employment, encourage formalization, and provide incentives for public sector employees to move to the private sector, with SMEs and younger workers especially targeted. The advantage of such a system is that Egypt possesses a demographic advantage in the form of its youthful population, a huge proportion of whom will continue to make social insurance contributions long before becoming beneficiaries. And since the Egyptian population is only ageing slowly, this would also present the government with an opportunity to introduce prudent financing and wider social welfare reforms.

2. Employment Strategy

A coherent strategy to accelerate employment growth and provide the poor with access to decent job opportunities is needed since employment is the most effective tool for reducing poverty and achieving equity. Suggestions integral to this strategy are listed below.

▼ **Egypt possesses a demographic advantage in the form of its youthful population**

A higher employment intensity of growth

This would ensure that labor incomes constitute a higher share of total output thanks to the higher level of employment.[15] This can be achieved through identifying potential growth sectors and implementing trade and labor market reforms.

There is evidence to suggest that employment elasticity within the manufacturing and service sectors is higher than the national average. Of these sectors, SMEs are responsible for the high employment elasticity, which indicates that these enterprises should be provided with the financial and technical support they lack.

As with any modern economy, robust industrial and export sectors are essential to ensure high levels of employment.

Increasing labor force skills

The role of education, most especially primary education, is increasingly accepted. If the mass of the population remains illiterate, or nearly illiterate, it can only make a marginal economic contribution. At that level, it can only partially benefit from training other than through the traditional 'hands-on' apprenticeship system. As indicated elsewhere in this report, jobs for an unskilled or semi-skilled workforce could increase if Egypt's industrial or construction sectors were expanded. In this respect, there may be some wisdom in creating incentives to encourage labor-intensive techniques and industries.

Egypt's fragmented and inefficient training system for higher level cadres — whether in

14. Omnia Helmy (2004), Pension Reform in Egypt, ECES, Working paper No. 94.
15. Experience of the Asian economies reveals that they achieved growth through a rapid and sustained increase in output and productivity, with real labor income growing more slowly than productivity, thus raising private domestic savings and investment.

administration, education or services— suffers from serious drawbacks.[16] Productivity could be enhanced by subsidizing vocational training, making better use of existing training facilities, and by encouraging cooperation between government, private sector and NGOs to promote state-of-the-art programs that meet emerging market needs. Specifically:

- expanding programs in sectors with a high potential for employment creation, such as manufacturing, commerce, services, ICT and tourism;
- adjusting the scope of programs so that they are demand-oriented;
- requesting employers (whether public or private sector) to fund those programs they benefit from them. (an example of best practice is the Kohl - Mubarak program).
- creating a single entity to coordinate training, ensure its quality, and respond to the changing demands of the labor market. One proposal is to create a National Training Fund, ideally with managerial and financial autonomy.

▼ What is projected is a structural transformation of the economy as reflected in the source of job creation and destruction

Another means of raising productivity and competitiveness is management training. The Ministry of Administrative Development (MOAD) is currently formulating general guidelines for constantly updated administrative training, with the goal of creating a new generation of management leaders capable of innovation, creativity and accountability.

Investment policies

Unemployment can be significantly reduced when investment is high and geared towards labor-intensive production techniques, export-oriented activities, and small enterprises. But investment levels have been falling since the 1990s due to a decline in government spending and limited FDI inflows. The trend towards the extensive use of capital intensive production techniques in the formal private sector has also led to an increase in the cost of creating one job opportunity — to grow from LE 60 thousand during the 1980s to LE 103 thousand in the late 1990s. During the same period, the average elasticity of employment to output fell at to between 0.6 and 0.64, indicating that growth has not been labor-intensive. A final point relates to the allocation of investments between small and large enterprises. Even though small firms are responsible for absorbing well over half the labor in the industrial sector, their share of investment does not exceed 14%.[17]

Policies to increase private sector productivity

In the face of accelerating globalization, it will be innovation and technology that determine the nation's prosperity. Policies need to encourage productivity and growth in the formal and informal private sector by:[18]

1. stimulating employment growth amongst SMEs, since their growth and productivity is impeded by market imperfections;
2. encouraging international demand for Egyptian products and services with quality, innovation, R&D, and standardization;
3. providing investment incentives in those sectors with the potential to create growth, productivity and jobs;
4. ensuring continuous communication between universities, technical schools and the private sector so that the education system meets the needs of a private sector that is to become the main employer in the future.

Projections of employment growth

Several sectors, including services, tourism, manufactured exports, communications and information technology (ICT), and rural non-agricultural activities, have been identified by EHDR 2005 as potential engines of employment growth. However one vehicle that has proven its ability to absorb the largest amounts of labor are SMEs. The following sections set out a vision of the overall structure of employment in Egypt in 2015.

What is projected is a complete structural transformation of the economy as reflected in the source of job creation and job destruction. The most dynamic growth sectors are manufacturing, tourism, construction and housing. Manufactured exports are expected to almost double their share of total manufactured output to reach 22.3%, up from the current low of 12% (annual growth rate 15%), while import substitution will also accelerate (growth rate of 5.9%) so that overall employment grows at 7% in

16. These include lack of adjustment to new technology an curricula and new professions; absence of national skill standards and trade testing systems; lack of funding; shortages in qualified instructors and underutilized training facilities; (AUC 2005, www.aucegypt.edu/src/skills development).
17. Fawzy, S. (2002), "Investment Policies and the Unemployment Problem in Egypt," *The Egyptian Center for Economic Studies*, Working Paper No, 68, September.
18. Development Economic Policy Reform Analysis Project (DEPRA 2000), "Private Sector Contribution to Egypt's Productivity and Growth," Report Prepared for the Ministry of Economy and Foreign Trade and Submitted to USAID Economic Growth/Sector Policy Cairo, Egypt by Nathan Associates Inc.

urban and 8% in rural manufacturing. The same employment growth rates are projected for the tourism sector based on estimates of direct and indirect (faster) job creation that correspond to growth of 7.2% per annum in value added (see Chapter Seven).

Figure 6.1 shows the distribution of labor in the years 2003 and 2015, under projected rates of growth. The figures show a huge increase in the share of private sector employment from 37% in 2003 to 56% in 2015. Almost all the private sector is comprised of SMEs,[19] hence their significant growth. The large and formal private enterprise sector will also witness a sizable increase in its share of employment,[20] while employment in SOEs and government will shrink in absolute terms and the share of agriculture will decline significantly (a projected annual growth of only 2% including agro industry exports).

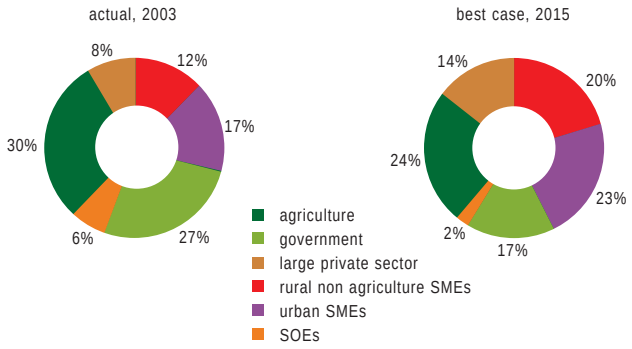
The most important gain to Egypt's overall labor productivity and incomes over the vision period obtains as a result of the decline in government employment. Government, gross annual recruitment is projected to decline to about 75 thousand per year while annual size of attrition is about 175 thousand so that there is a net loss of 100 thousand per year — or one million administrators — over the decade up to 2015.

Overall employment in 2015 is projected to reach 28.6 million, (based on a total employment growth rate of 3.6% between 2003-2015), while the labor force is projected to reach 30.3 million. The unemployment rate will hence be less than 6.0% as a best case scenario (see Chapter Five).

The good performance in job creation is due to the large boost that is given to private sector enterprise in urban and rural Egypt across the six leading employment sectors, as detailed in this chapter and in Chapter Seven:

- the growth rate of employment in rural Egypt is projected to exceed that in urban Egypt by one percentage point as a result of the vision strategy of favoring public expenditure in the south and in rural areas, and redeploying population towards new settlements (see Chapter Eight);

Figure 6.1: Distribution of employment by economic sector in BC scenario



* The large private sector refers to labor in enterprises employing 100 employees or more.

Note: The agriculture sector includes agro processing workers and is projected to grow by 2% annually. Number of government employees is projected to decline by 100,000 annually from 2006 to 2015 through attrition, and this reduction is expected to be entirely concentrated in the urban administrative services sector, which suffers from labor redundancy. Workers of state-owned enterprises (SOEs) are projected to remain constant, though half of them are expected to join the private sector by 2015 due to privatization. The foreign and investment sector is projected to grow at a rate of 4%, due to the expected increase in FDI.
Source: EHDR 2005

- the highest employment growth rate is achieved by construction (the proposed housing boom for low and middle income families), with an average annual growth between 9% and 10.4% in job creation;
- both manufacturing and tourism achieve annual rates of 7% to 8%, resulting in the doubling of the numbers employed, in line with the boost projected in investment, output and exports;
- trade and services grow at 5% to 6% and transport by 6% to 7%.

▼ **Small firms are major job providers**

3. SMEs and Employment

Formal and informal micro, small and medium sized enterprises in all non-agricultural sectors of the economy have been the major domestic employers since the 1980s, and could, with adequate support, become an even more viable engine of income and growth in coming years.

Why are SMEs engines of growth?

Small firms, major job providers, produce a significant share of total value added, and provide a large segment of the poor and middle-income populations with affordable goods and services.

Small firms represent a useful means of channeling small savings into investments, and — given an enabling framework that rewards rather

19. 97% of Egyptian enterprises are small (1-49 workers) and about 80% of employment in the private sector is concentrated in SMEs (1-99 workers).
20. The large private sector refers to labor in enterprises employing 100 employees or more.

Table 6.6: Estimated SME monthly output/labor and capital/labor ratios, 2003 (LE)

		Mean O/L	Mean C/L
Area	Urban	1,621	12,927
	Rural	500	5,389
Region	Metropolitan	1,484	11,966
	Lower Egypt	1,280	10,843
	Upper Egypt	573	5,535
Gender	Male	1,273	10,459
	Female	647	7,284
Workers	1 worker	698	8,475
	2–4 workers	883	8,070
	5-9 workers	1,429	49,061
	10-49 workers	16,443	35,168
Value of assets LE	< 1,000	228	398
	1,000 to < 5,000	459	1,635
	5,000 to < 20,000	837	6,472
	20,000 or more	3,857	38,639
Formality	Informal	598	7,653
	Formal	2,616	15,796
Economic activity	Industry	2,382	7,325
	Trade	1,095	11,559
	Services	571	7,326
	Total	1,195	10,064

Note: O/L= Output to labor ratio in LE,
C/L= Capital to labor ratio in LE
Source: El Mahdi, Alia (2004)

than penalizes risk — they are also able to foster the innovation and experimentation that are essential for structural change through the emergence of a group of dynamic, efficient and ambitious entrepreneurs. The continuous emergence and turnover of small firms in all sectors of the economy is considered a healthy phenomenon in many countries, and a barometer for the extent of dynamism and movement in the market.

▼ **SMEs spread their activities widely across trade, service or manufacturing**

SMEs generate high employment. The number of SMEs in 1998 was estimated to be around 3.3 million economic units, compared to 2.9 million in 1988. The average number of workers per enterprise was around 2.2 in 1998, up from 1.95 in 1988.[21] The number of workers grew to around 7.3 million, which is equivalent to a 2.8% average annual growth rate or around 38% of total employment in 1998. Given the same rate of growth, the expected number of workers in the sector amounts to 8.3 million in 2004.

Low capital cost per job created. One advantage of SMEs is their ability to offer large numbers of jobs at a low cost. However, as can be seen from Table 6.6, the worker's share of capital in micro and small enterprises has been estimated at only LE 10 thousand. But the results of an extensive survey of the behavior and performance of SMEs show that they must be differentiated, from firms with 50 or more workers in terms of their potential and problems (A. El Mahdi 2004). There are differences among SMEs according to their size, location, ownership, status of formality and economic activity. It becomes obvious that higher capital labor ratios are more visible in:

- urban areas in metropolitan centers;
- male-owned enterprises;
- firms employing between 5 - 9 workers;
- firms with invested capital > LE 20 thousand;
- formal enterprises.

SMEs essentially depend on their own savings and private resources to finance their projects. The formal sources of finance (such as commercial banks, SFD or NGOs) supply just 6% of SMEs with their initial capital. But the percentage of SMEs depending on loans to finance working capital expansion rose to around 10% of the total SME community in 2003.

Broad range of activities serving localized markets. One of the main features of SMEs is that they spread their activities widely across trade, service or manufacturing. Trade and services are most dominant, accounting for 65% of activity in small and micro establishments in 2003). New economic activities in information technology and communication are now starting to emerge in the service and manufacturing sectors.

Why have SMEs not delivered?

Despite the potential of SMEs, they have, so far, not been able to deliver sufficient jobs, improved working conditions, higher productivity, or better incomes. The reasons are various:

- *market failure*. Access to financial services remains restricted. Lending options, the only products available, are subject to costly terms. It is estimated that only 10% of SMEs have access to formal credit;
- *institutional failure*. Due to the complex regulations and transaction costs in establishing and operating small businesses, the majority of SMEs prefer to function on an informal basis. This acts as an obstacle to active participation and reduces the potential for linkages with larger enterprises and government procurement processes;

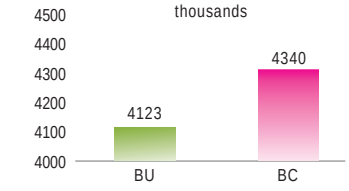
21. This trend has been ascertained in the latest survey (SMEs 2003) where the average number of workers is estimated to be 2.26 workers per enterprise.

- *technical failure*. Although there is a consensus that technical assistance is required to improve the efficiency of SMEs, the fact that technical business services were offered to less than 0.5% of SMEs in 2003 shows that very little is happening in this regard;
- *missing 'middle*. Since 97% of Egyptian enterprises are extremely small (employing between 1 and 49 workers), there are very few medium–sized firms that can act as feeding industries for larger companies;
- *shortage of land and its high cost*. There is a shortage of land that is fit to host SMEs close to large markets. Small entrepreneurs often settle for premises within residential neighborhoods, as they are then able to readily supply markets and workers. Many businesses are not officially registered because the buildings in which they are located are not registered either;
- *educational barriers*. Growing numbers of university and secondary school graduates are venturing into SMEs. As much as higher education improves the knowledge and opportunities open to entrepreneurs, education is not a sufficient condition for success. The academic curriculum does not prepare future entrepreneurs with management or technical skills; the curriculum, where appropriate, needs to be linked to practical experience in the field, and market-orientated training introduced, to foster growth.
- *inhospitable conditions for women*. The decline in government employment has driven a growing numbers of females to join the informal sector, to become self-employed or employers themselves. Areas that can exploit female skills (dexterity, attention to detail, traditional areas of proficiency) could benefit from targeted training (in computer outsourcing and software or secretarial competence..). There remain barriers — often of a cultural nature — and lack of access to finance. Thus, women represented just 6% of all small entrepreneurs in 2003.

Envisioning SMEs ten years from now

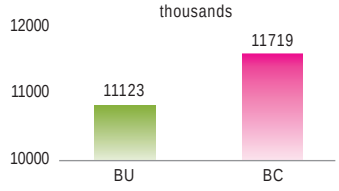
SMEs are clearly able to play a more positive role in generating income, employment and exports and in aiding the development of new products.

Figure 6.2: The expected number of SMEs in two senarios



Source: A. El Mahdi, Background Paper, EHDR 2005

Figure 6.3: The expected number of workers in SMEs in two senarios



Source: A. El Mahdi, EHDR 2005, ibid

At higher levels of productivity, they are capable of acting as feeder industries to large industrial manufacturers (as is true of Japan), thereby saving foreign exchange spent on the import of intermediates and capital goods.

The EHDR 2005 vision estimates a future increase in the contribution of SMEs to total value added (and thus GDP) from 25% to more than 40%. The reasons for this are:

- growing institutional support to the sector;
- increasing role of NGOs in supporting SMEs with business extension services and credit;
- rising levels of education of entrepreneurs;
- growing size of new enterprises, both in terms of workers and the value of capital;
- gradual disappearance of marginal economic units under the pressure of competition and the emergence of better equipped small and medium-sized economic units.

▼ **The academic curriculum does not prepare future entrepreneurs with management or technical skills**

Projections for the role of SMEs in 2015

The number of enterprises will vary according to the rate of growth achieved during the coming years. Two scenarios of growth have been projected between 1998 and 2015: a best case (BC) scenario, assuming a 1.97% annual growth rate, and a business as usual (BU) scenario assuming a 1.3% annual growth rate. Given around 2.7 workers per enterprise, the expected number of workers would be almost 12 million for BC and 11.1 million for BU (Figures 6.2 and 6.3).

Requirements from government and civil society

In a best case scenario, SMEs will find it to their advantage to become an integral part of the formal economy because they will have access to all of the public services and benefits of formality, such as security of tenure, collateral,

Box 6.1: The SME component of the poverty reduction action plan

The Poverty Reduction Action Plan (PRAP) was put together in early 2005 by the Ministry of Planning, ERF and UNDP; one of its components is on 'Job Generation through SMEs.' The proposed interventions include a number of programs in support of the SME sector, as highlighted below.

1. Training courses for micro entrepreneurs on how to deal with the Tax and Social Insurance Authorities, thus encourage them to convert from the informal to the formal sector. This would enhance their chance to grow, to access to finance, and provide employees' job stability. Tax and Social Insurance Authorities' employees can provide this training in return for a fee. Program cost is estimated at LE 8 million annually, for 100,000 beneficiary enterprises, distributed among 8 disadvantaged governorates. This covers the difference between the actual cost of training and what the beneficiaries can pay. Some of the existing micro-finance programs have linked the gradual formalization of a borrower's status to his eligibility to larger future loans.

2. Enabling the Credit Guarantee Corporation (CGC) to expand on its guarantees to banks so that they provide, in turn, more funding to micro-credit NGOs. This is through providing finance to CGC to use as partial cover for guarantees provided to banks and for technical assistance to NGOs, as well as covering the operation costs until a breakeven point is reached in 2-3 years. Beneficiaries could be 40,000 in 4-5 years by 4 NGOs, assuming a significant focus is directed to 'poverty lending' i.e. less than LE 1,000 per loan (mostly for start-up simple activities for women by 'group-guarantee system'). Annual cost is about LE 14 million for four NGOs, including LE 2.5 million for the loan capital per NGO.

3. To help the mature micro-credit NGOs qualify for receiving finance from international and local finance institutions through helping them obtain a Rating from an independent international agency. Two major pre-requisites in this respect are financial statements' transparency by applying international standard micro-credit reporting, and the availability of external audit by an internationally accredited local chartered accountant. Six mature NGOs could be supported every year in this regard at LE 1.2 million, thus about 100,000 micro-enterprises could benefit through the enhancement in funding available to the NGO.

4. Strengthen the agricultural extension services to small farmers through:
   a. enhancement of extension agents' training, incentives and transportation allowances;
   b. expanding on automated cultivation using laser and seed drillers which currently covers only a small portion of the total agricultural area. Beneficiaries could be 500,000 farmers who own one feddan maximum, in 600 villages in 50 Upper Egypt *markazes* (districts); Program costs are estimated at LE 60 million, of which LE 4 million for extension services (as an annual recurrent expense), LE 1 to LE 2 million for awareness seminars, LE 25 million for large bank-loans to contractors to purchase equipment for leasing to small farmers, and LE 30 million bank micro-loans (recurrent annually) to small farmers to pay contractors for the service. The Principal Bank for Development and Agricultural Credit (PBDAC) is to be part of the program since the early program-design stage.

5. Strengthen the animal and poultry extension services to small growers particularly women and youth, through
   a. enhancement of the extension agents' training, incentives and transportation allowances;
   b. expanding on the provision of artificial insemination equipment. Beneficiaries could reach 120 thousand including:
   - 60 thousand breeders of 1-2 cattle heads maximum, in 600 villages in 50 disadvantaged *markazes*;
   - 60 thousand beneficiaries from the poorest families to be offered micro-loans for poultry projects. Program costs are estimated at LE 160 million including LE 2 million for extension services assuming one extension worker per village (annual recurrent expense), LE 12 million for the provision of artificial insemination equipment, LE 145 million in micro-loans for poultry projects for 100 rural families per village in 600 villages, i.e. LE 2,400 per loan (annual renewable loans).

Source: Nivine El Oraby, PRAP Project Coordinator, and Co-Author of PRAP's SME-Component

access to formal credit, better use of public utilities, serviced land in the new developments, better conditions under the tax authorities than under-the-table bribery, social security for new workers under 30 years of age, and so forth.

Planning allocations should be reassessed regularly according to the needs of governorates

A number of reform measures are proposed:

- for the institutional set-up, simplified rules governing real estate, registration and licensing, together with lower taxes, improved tax management, and a revision of the social security system;
- training centers should in some cases be privatized, and restructured to meet the various specialized needs of economic activity;
- large and small enterprises also still suffer from a lack of market information. The so-called 'information law', proposed by the National Democratic Party, could help, as would the provision of databases containing market data and regularly updated information on the major domestic and international suppliers of products;
- support services need substantial finance, such as for regional universities, technical colleges, pilot-scale facilities and research centers to help develop the technical capabilities of SMEs in their communities;
- legislative and administrative power should be decentralized to governorates so that

they can prepare more appropriate investment policies, laws and regulations. Local fees, duties and operational procedures should no longer need central approval from line ministries;

- planning allocations in both urban and rural zones should be reassessed regularly following governorate needs (for example in population, housing, or business sector expansion). Such a step could drastically reduce informality in housing and business.

Since mid-2004, improving the climate for business has been a stated government goal. If these new policies are successful then in ten years SMEs can be expected to account for more than 40% of total employment, and they will produce-produce more than 35% of GDP, and at least 10% of total manufacturing exports.

SMEs with high growth potential

The number of micro, small and medium-sized establishments exceeds a quarter of a million (3.5 million when informal/unregistered enterprises are included), which means that no program will ever comprehensively reach all SMEs.

Cluster targeting

Any effective program will have to target clusters or communities that assemble large groups of SMEs, especially those that have horizontal or vertical production linkages. Cluster locations are good candidates to host and disseminate new technologies, training and marketing techniques; moreover new policies have a greater chance of succeeding in cluster communities owing to the cluster's specialization in a certain production activity which facilitates the spread of knowledge and skills within the community.

Empirical data confirms that small enterprises operating in clusters are more productive and successful due to the easy dissemination of new production techniques. In addition, clusters constitute a favorable environment for encouraging competitiveness, innovation and growth between SMEs as they help them attain critical mass, pool resources, find business partners, and gain access to strategic information. Furthermore, the benefits of government and NGO interventions continuously accrue in cluster communities, and indeed spill over into surrounding industrial, service, and trade areas. Examples of successful clusters include Damietta, Shubra El-Kheima, Manasra, Mahala-El Kubra and Kaha.

Targeting rising sub-sectors

To ensure positive outcomes for business service programs, databases should be employed to identify promising economic sub-sectors and to devise support programs towards these sectors. The potential of different sectors can be measured according to criteria such as the potential for high employment growth, the ability to produce exports, act as successful feeding industries, and develop traditional handicrafts and new service or manufacturing functions. Ongoing research assesses emerging manufacturing exports according to three main criteria:

1. the share of exports to total sales;
2. export growth during the last five years; and
3. plans to expand during the coming five years.

The study identifies food manufacturing, furniture and plastics (where smaller firms are especially dominant), as well as paper products, building materials and electrical appliances, as the most promising manufacturing export sectors for futured development.

Annex 6.1 identifies the larger SME clusters in Egypt, examines the business services available in these communities, and proposes additional services that should be established in them.[22]

Business resource centers for SME clusters

SME growth potential is hampered because of poor quality and environmental standards, lack of access to finance and broader markets for their goods. Productivity can be raised via business resource centers (BRCs) to offer financial and non-financial support. Annex 6.1 provides details on appropriate locations and costs of these and of training centers (TCs) that would serve micro and small enterprises.

Existing facilities, whether set up by NGOs or associations of businessmen, need to be built up to be able to act effectively at the grassroots in cluster communities, and there is a need for additional BRCs to serve SME clusters.

▼ **Women entrepeneurs suffer more severely than males from the lack of finance and technical services**

22. The choice of clusters is based on a previous study conducted by Elisabette Cottonet at the end of the 1990s, based on the Establishment Census of 1996. The aim of the study was to identify the cluster communities that host SMEs in four main industries (food and beverage, weaving, textile and ready-made clothing, wood and furniture and heavy industries, transportation and engineering equipment).

Table 6.7: Agricultural economic indicators

Item	Unit	1982	2004
Cultivated area	Mil Fed	6.2	8.4
Cropped area	Mil Fed	11.2	16.0
Plant production	LE bil	4.1	55.0
Animal production	LE bil	2.3	28.0
Agricultural production	LE bil	6.4	83.0
Agricultural income	LE bil	4.4	60.0
Agricultural exports	LE bil	0.5	6.1
Agricultural investment	LE bil	0.4	11.6
Agricultural credit	LE bil	4.0	14.0
Pesticides used	000 tons	24.0	4.0
Growth of agric VA	%	2.6	3.5

Source: Ministry of Agriculture and Land Reclamation

Table 6.8: Targeted areas for reclamation

Area	Fed
Sinai	413
East Delta	648
Middle Delta	109
West Delta / West Desert	1,013
Middle Egypt	99
Upper Egypt	468
Naser Oasis	50
Halayeb and Shaleten	60
South Valley (Toshka)	540
Total	3,400

Source: Ministry of Water Resources and Irrigation

Table 6.9: Agricultural indicators and targets

Crop	Item	Unit	1982	2004	2017
Wheat	Yield	Ton	1.3	2.4	4.2
	Product	mil Ton	2.0	6.6	---
Rice	Yield	Ton	2.4	4.1	5.5
	Product	mil Ton	2.4	5.6	---
Maize	Yield	Ton	1.7	3.4	5.7
	Product	mil Ton	3.4	6.8	---
Cereals	Product	mil Ton	7.8	19.0	---
Fava beans	Yield	Ton	0.9	1.4	---
	Product	mil Ton	260.0	447.0	---
Sugar cane	Yield	Ton	34.4	50.0	61.0
	Product	mil Ton	8.7	15.0	---
Sugar beet	Yield	Ton	12.6	20.5	30.0
	Product	mil Ton	0.2	3.5	---
Vegetables	Product	mil Ton	8.0	18.0	---
Fruits	Product	mil Ton	2.6	12.0	---

Source: Ministry of Agriculture and Land Reclamation

Table 6.10: Targeted animal production and indicators

Crop	Item	Unit	1982	2004	2017
Red meat	Product	000 Tons	315	560	880
	Self Suff.	%	55	75	..
Poultry	Product	000 Tons	315	652	1200
	Self Suff.	%	65	107	..
Eggs	Product	bil	3	7	11
	Self Suff.	%	80	100	..
Milk	Product	mil Ton	2	5	6
	Self Suff.	%	70	80	..
Fish	Product	000 Tons	280	850	1500
	Self Suff.	%	65	80	..

Source: Ministry of Agriculture and Land Reclamation

Under the 2015 vision, agricultural production is set to grow at a rate of 4.1%

Research indicates that women entrepeneurs suffer more severely than males from the lack of finance and technical services. Recent data also shows the number of female small business entrepreneurs to be falling, as indeed are female wageworkers, who are fewer in number owing to the gradual withdrawal of the government as the major employer of women. Women are likely to occupy special skill niches, and BRCs and TCs — possibly using gender-specific NGOs — could be more productive in identifying and addressing the appropriate market gaps or skills to raise employment (see Box 4. 7 in Chapter Four).

Apart from some small towns with minor clusters, (for example Ibshway and Sinuris in Fayoum, Adwah, Maghagha, Matay, Samalut, Abu Qarkas, Malawi and Dayr Muas in Menia; Abu Tig in Assiut; or Waqf and Nagada in Suhag), communities in Upper-Egypt lack any well developed industrial clusters and could particularly benefit from strengthened industrial, service and trade clusters. This would help balance the distribution of investment in Egypt and introduce new economic activities, sustained by modern technologies, robust business practices and linkages which could create job opportunities and reduce poverty in an impoverished region.

4. Vision for Agriculture, 2017

Agriculture has become a free-market, export oriented sector of the economy, with price fixing, obligatory cropping patterns, and other restrictive policies now features of the past. However agriculture still lacks tools, such as information and technical assistance, guaranteed voluntary prices, cooperatives, credits and regulatory measures, which would help the sector become an engine of economic modernization, as well as indirect employment growth in related sectors.

The vision for agriculture[23] in 2017 includes increasing agricultural production, introducing rapid farm mechanization, expanding exports of high-valued crops, using less water in irrigation,

23. Targets are based on the MOP forecasts for the year 2017.

introducing an alternative and more valuable cropping pattern, and encouraging foreign direct investment, measures which will both improve real incomes and the standard of living of the rural population by about 25%.

Growth of agricultural production

Agricultural output and value added grew at a rate of 2.6%-3.5% between 1982 and 2004. This was due to increases in the area of cultivated land, cropped area and the yields of several crops as shown in Tables 6.7 and 6.9.

Under the 2015 vision, agricultural production is set to grow at a rate of 4.1% through the optimum management and allocation of resources. This can be achieved by reclaiming and cultivating an additional 3.4 million feddans of land, as shown in table 6.8.

Although the main strategic food crops saw an increase in yield, production and self sufficiency ratios between 1982 and 2004, further improvements are planned for strategic commodities such as wheat, legumes, oils, and meat. These improvements can be achieved through vertical plant expansion (producing new higher yielding, better quality varieties (see Table 6.9) and greater animal production (particularly in small ruminants, poultry, and fish) with the goal of increasing the per-capita consumption of animal protein from 18 to 24 grams per day.

Farm mechanization

Most farms currently employ outdated land preparation, planting, irrigation, insect control and harvesting techniques. The efficiency of seed-bed preparation and irrigation, for example, stands at 50%. In insect control, over 75% of sprayed liquids are lost to the ground due to the use of obsolete high volume sprayers; and an estimated 28% of rice and wheat crops are lost because harvests are still largely gathered by hand. Optimal use of agricultural resources and improved efficiency requires new farming techniques including increased mechanization. In addition to increasing productivity, preventing the loss of seeds, and savings on fuel, farm mechanization is projected to create an estimated additional 250 thousand jobs in agriculture-related activities, as demonstrated later.

Table 6.11: Impact of mechanization on crop yield

Crop	Current practices Ton	Mechanize planting Ton	% increase	Source
Cotton	1.0	1.2	28	Nile Valley (1980)
Wheat	1.2	3.0	43	Agricultural production and credit project (1989)
Corn	2.4	3.5	46	Small farms project (1991)
Rice	3.0	4.0	25	Rice mechanization project
Potatoes	9.0	12.0	30	Farm mechanization (1986)

Source: Z. Al Haddad, Background Paper, EHDR 2005.

Table 6.12: Extra revenue expected as a result of farm mechanization

Crop	Field operations	Yield increase/fed value	Less cost LE/fed	Total extra revenue LE/fed
Wheat	1,2,3,6,7a	4Ardab + 4 himl (LE 1,060)	-763	1823
Rice	1,2,5,7b	0.75 tons/fed (LE 675)	-815	1490
Maize	1,2.4,6	8 Ardab (LE 1,200)	26	1174

Note: 1. Seed bed preparation. 2. Land leveling. 3. Wheat planting. 4. Row planting. 5. Rice transplanting. 6. pest-side control. 7a. harvesting of wheat. 7b. harvesting of rice

Source: Ibid

Table 6.13: Current use of technology in agriculture

Laser leveling	< 3%
Wheat seeding	< 1%
Corn planting	None
Cotton planting	None
Rice transplanting	< 0.01 %
Pest control	None
Harvesting system	< 5%

Source: S. Nassar et al

Table 6.14: Suggested crop changes

Crop	Change
Wheat	+
Clover	-
Fava beans	+
Lentils	+
Sugar cane	-
Sugar beet	+
Maize	+
Rice	-
Sunflower	+
Cotton	-
Potatoes	+

Source: S. Nassar et al. (2005)

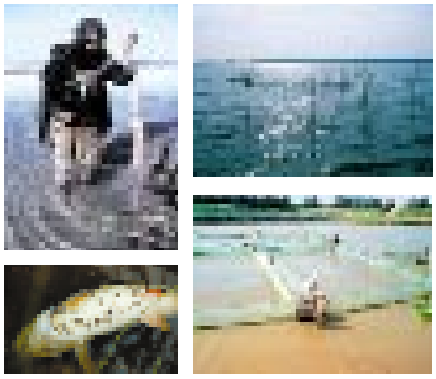
Estimated savings

Merely using modern methods in seed-bed preparation with wheat, rice, corn and cotton, could save an estimated 165 thousand seeds worth LE 426 million. These methods would also save an estimated 10 liter/feddan in fuel when planting, reducing the cost per feddan from LE 15.6 to LE 9.6. Further, advanced pest control systems use 40% less chemicals and 80% less labor and energy than traditional methods, thereby increasing efficiency by 158%. There are also financial benefits in using modern methods in harvesting: the cost of wheat can be reduced by LE 823/feddans, rice by LE 885/feddans.

Estimated costs

In spite of the potential efficiency savings, farm mechanization still encounters concerns due to land fragmentation, high capital costs, lack of locally manufactured (and less costly) farm machinery, and redundancy of agricultural labor. With regard land fragmentation, experience

Box 6.2: Saving fish farming through intensive techniques



Fish farms contribute about 50% of Egypt's total fish production, using an 'extensive' (and unsuitable) system whereby — according to the law on irrigation farms— fish are to be fed from agricultural drainage water, so that measures guaranteeing the purity of this water must be strictly enforced to keep them from being poisoned. Every 1kg of fish produced requires a 2.3 m^2 area and consumes 5.5 m^3 of water at maximum efficiency. As a result, apart from the fact that Egypt loses 2.2 Bm^3 of water annually as evaporation from the current 220,000 feddans of fish farms, there is also the question of increased pollution.

There is some controversy over the extent to which Egypt's fisheries are polluted. In a study on pollution, samples were taken and analyzed from the Nile at Cairo and Benha, Lake Manzala, and Lakes Maryiut and Rayan, and from two canals.

Findings concluded that:

1. average amounts of heavy metals in fish meat were substantial, and often well above the maximum allowable concentration standards, set by the FAO. Lead accumulation was especially high, most probably related to exhaust gas from cars. As sampling was carried out before the ban on leaded fuel in 1998, the positive effects of the ban are not reflected;
2. organochlorine pesticide residues levels found in fish meat was very high, with average concentrations far above the maximum allowable concentration standards, and for some compounds (DDT- isomers and PCBs) this was true for 100% of the sampled fish.
3. highest toxic residues were found where drain water from irrigation is present (in the northern lakes fish farms), and in canals close to agricultural land;
4. in tissue other than meat, much higher levels of toxics were sometimes reported which indicates an increased health risk for people consuming whole inland fish.

- **Alternative fishing techniques.** The most feasible solution is to introduce the semi-intensive system as a new industry. This system includes different types of farming.
- **The semi-closed system.** In this system, water carrying capacity amounts to 50 kg/m^3 of water, where water losses are almost nil. Here energy can be substituted for water and land, where each kg of fish requires about 5 kw.h. instead of 2.3 m^2 of land and 5.5 m^3 of water. A 400 m^2 farm can produce 40 tons annually, equivalent to the production of 20-40 feddans of the current system. For this system to work a model farm with a training facility in each governorate should be set up. Foreign experts are needed to work with local experts to create these facilities. At the same time, a credit line has to be established so that fish farmers using the extensive system have the means to turn to semi-closed ones. Polluted farms should be closed and consuming fish from northern lakes forbidden.
- **The race-way system.** In this system, fish could be produced around waterways and Lake Nasser. The target locations are shoreline areas where geographical micro-sites are appropriate. The costs involved in this system are less than those of the semi-closed technique. International experts need to be consulted and a feasibility study carried out first.
- **Cages.** These represent 3% of the total world fish production of freshwater fish and 40% of marinewater fish. In the U.S. about 130 fish types are produced with this technology. The advantages of this system are that the large areas of sea and coastlines can be used. Normal water movements in these areas supply the fish with oxygen and carry out the residuals, and the system does not need a particular technology, allows for easy management, as cages — whether fixed, floating, submersible and submerged — are removable.

There are some constraints, as for example, for the semi-intensive system, expansion is limited as long as it relies only on drainage water, and unless more investments are available.Further, these technologies are not well known in Egypt and it is crucial for more research to be undertaken in aquaculture engineering. But the rewards are great for a new industry of intensive fish farming that will produce unpolluted fish for local and export consumption, will add back 220 thousand feddans to agricultural land, and will save about 2.2 billion m^3 of water now lost in evaporation — which amount is sufficient to reclaim more than 500 thousand feddans.

Source: Z Al Haddad, (2005), Background Paper, EHDR

shows that technology has already successfully been used in three large projects spanning some 248 villages, covering 13,441 feddans in 9,360 farms; concerns over capital costs can be dismissed as long as new equipment delivers increases in yield in excess of the total costs. Indeed, this may be a window of opportunity for ventures to produce such machinery locally.

Re-absorbing excess agricultural labor

Two studies carried out by the German GTZ and the Academy of Science and Technology in 1991 and 1996 suggested that increased farm mechanization could actually create jobs in the manufacturing, service and maintenance sectors. Manufacturing can be encouraged via the Industrial Modernization Program while the service and maintenance industries will automatically expand as a result of the on-going process of rapid growth of off-farm activities in rural Egypt. Indeed, increased agricultural productivity, alongside job creation in non-farm activities including agro industries, are seen as a key means of reducing poverty in Egypt.

Rationalizing the use of water in agriculture

Sustainable growth in agriculture relies on the use of a limited resource such as water in the most effective and efficient way. Several practices can help in this direction:

1. cropping patterns can be adjusted to reduce the acreage of high water-consuming crops, such as rice and sugar cane. For example, the Ministry of Public Works and Water Resources' water conservation plan aims to save about 1.5 billion cubic meters of water annually by substituting sugar cane with beets and reducing the area of rice growth from 1.3 million feddans to 950 thousand feddans. But, financial, technical support and guidance will be needed to persuade farmers of the benefits of these proposals.[24]
2. similar methods should be used when encouraging farmers to turn to faster-growing and lesser water-intensive varieties of crops, such as the Giza 177, Giza 178, Sakha 101, Sakha 102, Sakha 103, Sakha 104 and Yasminy varieties of rice which require 6,000 m^3 of water/feddans compared to traditional varieties which require 9,000 m^3/feddans.
3. shifting from flood to drip and sprinkle irrigation will save water. At present, flood irrigation is used over 70% of Egypt's cultivated land, but this method wastes about 80% of the water used. In new desert lands, drip and sprinkle systems are recommended yet not universally used. Many farmers have returned to flood irrigation, for no better reason than clogged sprinklers and lack of support or training in how to operate and repair the new systems.[25] Proper support and guidance will expand the use of hydroponics.
4. programs to connect wells by canal or to create water user associations with the power to apply measures to manage water demand could raise the efficiency of the use of water significantly
5. recycling of water will help to rationalize water use, although it should be considered that the reuse of drainage water (from agriculture, industry, and sewage) and the reduction in drainage flow to the sea have limitations. Excessive reuse of drainage water increases soil salinity and eventually reduces crop productivity. Also, waste water requires costly chemical treatment (around LE 45–LE 60 per cubic meter) to purify it to acceptable standards and avoid health hazards. Reducing the flow of water to the sea would carry the risk of seawater intruding into and threatening productive land in the Nile Delta.

Table 6.15: Actual and suggested cropping patterns 2003 and 2017

No.	Crops/season	Actual Crop. Pat. 2003* Cultiv. 000 fed.	Actual Crop. Pat. 2003* %	Suggested Crop. Pat. 2003* %	Suggested Crop. Pat. 2017 Cultiv. 000 fed.	Suggested Crop. Pat. 2017 %
1	Long season berseem	1,966	13.6	10.6	2,223	10.9
2	Short -cycle berseem	573	4.0	3.5	743	3.7
3	Wheat	2,506	17.3	20.6	4,323	21.3
4	Barley	216	1.5	0.0	0	0.0
5	Broad bean	282	2.0	2.4	494	2.4
6	Winter onion	61	0.4	0.4	90	0.4
7	Garlic	23	0.2	0.2	34	0.2
8	Sugar beet	131	0.9	1.0	208	1.0
9	Winter tomatoes	179	1.2	1.3	266	1.3
10	Winter potatoes	83	0.6	0.6	123	0.6
11	Other winter vegetables	286	2.0	2.0	425	2.0
12	Other winter crops	266	1.8	1.5	303	1.5
	Total winter season	6,571	45.4	44.1	9,232	45.5
13	Maize	1,580	10.9	13.7	2,878	14.2
14	Sorghum	390	2.7	2.8	580	2.9
15	Rice	1,508	10.4	7.1	1,000	4.9
16	Groundnut	147	1.0	1.0	218	1.1
17	Sesame	72	0.5	1.5	309	1.5
18	Sunflower	32	0.2	0.8	168	0.8
19	Yellow corn	78	0.5	0.0	0	0.0
20	Summer potatoes	68	0.5	0.5	101	0.5
21	Summer tomatoes	204	1.4	1.4	303	1.5
22	Cotton	535	3.7	3.5	743	3.7
23	Other summer vegetables	784	5.4	5.6	1,165	5.7
24	Other summer crops	293	2.0	2.0	420	2.0
	Total summer season	5,691	39.3	40.0	7,885	38.8
25	Nily maize	307	2.1	2.7	562	2.8
26	Nily potatoes	45	0.3	0.7	154	0.8
27	Nily tomatoes	77	0.5	0.5	115	0.6
28	Other Nily vegetables	97	0.7	0.7	144	0.7
29	Other Nily crops	105	0.8	0.8	153	0.8
	Total Nily season	632	4.4	5.4	1,128	5.5
30	Sugar cane	327	2.3	2.0	285	1.4
31	Alfalfa	55	0.4	0.0	0	0.0
32	Fruits	1,119	7.7	7.9	1,663	8.2
33	Dates	78	0.5	0.5	115	0.6
	Total perennial	1,580	10.9	10.5	2,063	10.2
	Total crop. area	14,474	100.0	100.0	20,308	100.0

Source: *Ministry of Agriculture and Land Reclamation, ** The Model

Encouraging growth and efficiency in agriculture

Taking into account the physical (land, labor, and water) as well as the structural (crop duration matrix) constraints facing the agricultural sector, an alternative cropping pattern has been formulated using the Non-Linear Model.[26] Under the actual cropping pattern used in Egypt in 2003, an area of around 14.47 million feddans was cultivated at a cropping intensity of 1.8 (first two columns of Table 6.15).

24. Korayem, Karima (2003), 'Toshka Potential for Employment and Income Generation.' The United Nations Department for Economic and Social Affairs (UNDESA) and the Ministry of Irrigation, Cairo, Egypt. November.
25. Korayem, Ibid.
26. Saad Nassar, Hanaa Kheir El Din et al'. 'Suggested Alternative Cropping Patterns in Egypt.' IDSC, 2005.

Table 6.16: Export performance indicators for Egypt and selected countries

	Trade openness %	Trade openness %	Exports to GDP %	Exports to GDP %	Exports volume an. growth %	Exports value $000	Exports per capita US$
	1990	2002	1990	2001	1990-2001	2002	2001
Egypt	36.8	18.8	8	4	2.8	4,381	63
Tunisia	73.5	77.7	29	33	5.8	6,799	683
Morocco	43.3	54.2	17	21	6.7	7,144	244
Philippines	47.7	91.7	18	45	21.9	35,208	410
Indonesia	41.5	51.1	22	39	8.6	56,317	270
Malaysia	133.4	182.4	67	100	10.7	93,265	3,694
Turkey	23.4	45.9	9	21	10.8	34,561	455

Source: World Bank (2003), World Development Indicators (2004) and UNCTAD, Handbook of Trade Statistics

▼ Egypt already enjoys comparative and competitive advantages, for example in cotton, fruit and vegetables, medicinal and aromatic plants and cut flowers

However the new cropping pattern aims to increase the gross margin from LE 23.5 billion to LE 24.4 billion, reduce uncertainties, rationalize the use of water, increase self sufficiency ratios in certain strategic crops, and finally cultivate a maximum area of one million feddans of rice, 285 thousand feddans of sugar, and a minimum of 500 thousand feddans of cotton (columns 3 and 4 of Table 6.15). This cropping pattern has several advantages, the most important of which are savings of about 4 billion m^3 of water and the more efficient use of fertilizers and labor.

Cropping best case senario

Table 6.15 shows a best case projection for the cropping pattern in 2017, based on the alternative 2003 pattern. The principal differences between the two projections are:

- the cultivated area in 2017 will be 3.4 million feddans greater (the new reclaimed area) than the 2003 cropping patterns. (8.2 million feddans in 2003 vs. 11.6 million feddans in 2017);
- the 2017 cropping patterns could create about 1.7 million new jobs in agriculture and related activities (around 2 feddans are needed to create one job);
- the cultivated areas of wheat, fava beans, lentils, sugar beet, maize, sunflower and potatoes in the 'alternative' 2017 projection will be greater while those of clover, sugar cane, rice and cotton will be lesser;
- the self-sufficiency ratios for strategic food crops like wheat, fava beans, lentils, and oils will be higher in the 2017 cropping pattern;
- the proposed cropping pattern is also more efficient because of its savings in use of water, fertilizers and labor;
- in addition, this cropping pattern is able to provide the national domestic sugar and textile industries with raw materials.

Expanding exports of high valued crops

Introducing this alternative cropping pattern will help promote exports of those agricultural commodities where Egypt already enjoys comparative and competitive advantages, for example in cotton, fruit and vegetables, medicinal and aromatic plants and cut flowers.

According to the proposal, it is expected that Egypt's agricultural exports will grow by an average of 20% per year, that is, earning from about $1 billion to some $5 billion per year.

Encouraging Egyptian, Arab and FDI

In 1997, the Toshka project was initiated as part of the South Valley Development Project Plan. It is located in the New Valley Governorate which comprises almost 38% of the country's total area. Toshka goals are to establish new industrial and agricultural societies; new settled communities; a network of basic and peripheral roads to serve the area as well as airports, and to transport agricultural and industrial products; and finally, encourage tourism in an area that encompasses many prehistoric, Pharaonic, Greco-Roman and Islamic monuments.

Toshka is an example of the desired model that combines Egyptian, Arab, and foreign direct investment in agriculture, as part of this integrated plan, with a total investment estimated at LE 300 billion in the 20 years leading up to 2017.

According to its development plan, GOE will undertake 20%-25% of the total investment, allowing local and foreign private investors to make up the rest. The majority of the 540 thousand feddans are to be distributed among three large investors, including the Kingdom Agricultural Development Company (a foreign private joint-stock company), the South Valley Development Company (a local publicly-owned company), and the Egyptian Company of Land Reclamation and South Valley Development (a local public-private company).[27]

27. Ibid.

5. Manufactured Exports as Engines for Growth

Merchandise exports in Egypt and other countries

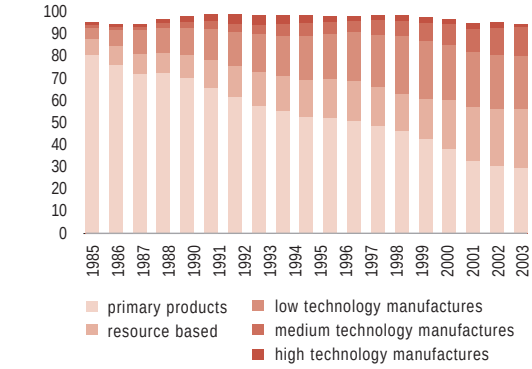
Non-oil exports have yet to become a significant source of growth, foreign exchange earnings or job creation, but thanks to their high unexploited potential, they remain the best avenue for stimulating economic growth. Figure 6.4 classifies products according to their level of processing, and shows positive movements of exports of high-tech manufactured goods compared with primary products. Table 6.16 compares Egypt with similar countries in terms of trade openness, the percentage of exports to GDP and merchandise exports per capita. All indicators show Egypt to be lagging behind its competitors, both currently and when trends are traced over time. The table also indicates that the volume and value of Egypt's exports could increase tenfold if they were to regain their share of world exports of 1990.

Some sectors and products, namely textiles and ready-made garments, agro-industrial products, chemicals, construction, ceramics, and building materials, have traditionally dominated Egypt's export profile.

Egypt should also use a number of additional indicators to monitor performance of its exports. First, the issue of backward and forward linkages in the different sectors should be considered. Secondly, the emphasis should not necessarily be placed on exporting a wholly made product, but on being part of the value chain of global production. Third, since unit labor cost is one of the best indicators of competitiveness,[28] it should be a determining factor, together with labor output elasticity, when identifying different sectors and products in terms of potential export growth and capacity to create jobs.

The methodology[29] has focused on trends in unit labor cost and those products with the lowest labor unit cost in Egypt. There are two benchmarks: a comparison of average unit labor cost for different products in the 1990s with that in previous decades, as well as a comparison of the most recent year. Table 6.17 shows the unit labor costs for the different sectors with the best performers highlighted.

Figure 6.4: Egypt's export structure (%)



Source: Calculations based on World Integrated Trade Solution (WITS), World Bank, 2005

Table 6.17: Trends in growth rates for exports of Egypt, Turkey, and Malaysia

	1985-1990	1990-1995	1995-2000
Egypt	1.7	-6.3	7.3
Malaysia	16.2	19.9	4.6
Turkey	11.8	10.4	4.9
Developing world	12.5	11.0	5.7

Source: UNCTAD (2003), Handbook of Trade Statistics

The second stage of the analysis involves a comparison of unit labor cost in Egypt with six competitors (India, Malaysia, Morocco, Turkey, China and Tunisia) for the latest year available. The methodology has identified one sector or product where Egypt ranked first in terms of lowest unit labor cost: wearing apparel, except footwear. This sector is projected to accelerate in export performance. There are another eight sectors and products where Egypt ranks second or third in terms of labor cost: plastic products, furniture, leather products, other chemicals, other non-metallic mineral products, machinery except electric, transport equipment, and other manufactured products. These results are extremely promising in that they suggest a number of sectors and products that could act as engines for growth and where exports should be promoted to sustain their competitiveness. These products include finished goods as well as parts of products, which highlights that Egypt can excel at both exporting finished goods as well as being part of the global value chain.

▼ **The emphasis should not be placed on exporting a wholly made product, but on being part of the value chain of global production**

28. Unit labor cost is calculated by dividing the value of average wage by productivity or wage per employee by value added per employee. The lower the indicator -which ranges from 0 to 1- in any sector compared to the indicator for the same sector in other countries, the more competitive is that particular sector.
29. Among 28 products the best 10 were identified, including other non-metallic mineral products, other chemicals, beverages, wearing apparel, except footwear, industrial chemicals, and electric machinery.

Table 6.18: Unit labor cost in Egyptian manufacturing and selected countries (1998)

ISIC Code	Product Group	India	Malaysia	China*	Morocco	Tunisia	Turkey	Egypt	Egypt Ag 80's
311	Food products	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.5
313	Beverages	0.2	0.2	0.1	0.2	0.3	0.1	0.3	0.5
314	Tobacco	0.2	0.1	0.0	0.1	0.8	0.4	..	0.4
321	Textiles	0.7	0.2	0.2	0.5	0.4	0.3	0.5	0.7
322	Wearing apparel, except footwear	0.3	0.5	0.0	0.6	0.5	0.3	0.2	0.6
323	Leather products	0.4	0.5	0.1	0.5	0.3	0.3	0.3	0.6
324	Footwear, except rubber or plastic	0.4	0.5	..	0.7	..	0.3	0.6	0.6
331	Wood products, except furniture	0.5	0.3	0.2	0.5	0.3	0.3	0.7	0.8
332	Furniture, except metal	0.6	0.4	0.1	0.7	..	0.2	0.4	0.6
341	Paper and products	0.5	0.3	0.2	0.3	0.4	0.4	0.4	0.5
342	Printing and publishing	0.4	0.3	0.2	0.5	..	0.1	0.5	0.8
351	Industrial chemicals	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.6
352	Other chemicals	0.2	0.3	0.2	0.4	0.3	0.2	0.3	0.5
353	Petroleum refineries	0.1	0.1	0.1	..	0.0	0.0	0.5	0.6
354	Misc. petroleum and coal products	0.4	0.1	0.4	..	..	0.2	0.5	0.3
355	Rubber products	0.3	0.3	0.1	0.6	0.4	0.2	0.4	0.6
356	Plastic products	0.4	0.3	0.1	0.4	0.3	0.2	0.3	0.3
361	Pottery, china, earthenware	0.5	0.4	0.2	0.4	0.5	0.2	0.5	0.5
362	Glass and products	0.6	0.2	0.2	0.3	0.5	0.3	0.4	0.7
369	Other non-metallic mineral products	0.4	0.2	0.2	0.5	0.4	0.2	0.3	0.4
371	Iron and steel	0.3	0.3	0.2	0.2	0.8	0.2	0.4	2.2
372	Non-ferrous metals	0.3	0.2	0.2	0.4	0.4	0.3	0.5	1.1
381	Fabricated metal products	0.4	0.3	0.1	0.5	..	0.2	0.5	0.5
382	Machinery, except electrical	0.5	0.3	0.3	0.6	0.8	0.3	0.3	0.8
383	Machinery, electric	0.3	0.3	0.1	0.5	0.4	0.3	0.3	0.4
384	Transport equipment	0.5	0.2	0.2	0.4	0.5	0.2	0.2	0.7
385	Professional/scientific equipment	0.4	0.4	0.2	0.5	..	0.2	1.0	0.8
390	Other manufactured products	0.3	0.4	0.1	0.6	0.3	0.2	0.3	0.7

*According to year 1986
Source: UNIDO Industrial Statistics Database (2002)

Competition from smuggled imported goods is the main driving force underlying the increase in exports

Annex 6.2 provides details of the methodology used to measure Best Case and Business as Usual scenarios for growth of manufactured exports.

Towards a strategy for sustained growth in manufactured exports

Assessing Egypt's export potential begins by identifying the sectors with export potential and examining the various ways by which other countries managed to promote exports. This should be complemented by a critical appraisal of the measures undertaken by GOE. Contributing to economic growth, creating more jobs in labor intensive industries, restoring the trade balance and reducing pressure on the domestic currency are the factors that render the increase in manufactured exports a top priority.

Accomplishing this goal, however, has posed great challenges. Over the past two decades, the government has been struggling to fulfill two conflicting goals; that of maintaining high tariff rates to protect domestic industries, and that of promoting exports. It was widely believed that such a conflict could be resolved by introducing the temporary admission and drawback mechanism since then exporters can have access to duty free imported intermediate inputs.

Practically, this mechanism has proved very inefficient. Bureaucracy and red tape led to high transaction costs and increased the difficulty associated with competing on world markets especially where on-time delivery is important as in the the case with textiles and ready-made garments. To a great extent exporters of textile and ready made garments — and probably other exporters too — were only able to cope with competitive pressure because they enjoyed some preferential treatment in some markets like the EU or US. (Elshennawy, 2003).[30]

Because preferential treatment is gradually being eroded as more and more countries are committing themselves to liberal trade under the GATT, (Yeats, 1997)[31] the sustainability of exports will become questionable. Addressing the question of sustainability is crucial if exports

30. Elshennawy, Abeer. 2003. Adjusting to Free Trade. Egypt's Textile and Ready Made Garment Industry. Paper presented to the FEMISE network, France.
31. A Yeats, Alexander. 1998. Export Prospects of Middle Eastern Countries: A Post Uruguay Round Analysis. In Raed Safadi ed. Opening Doors to the World. A New Trade Agenda for the Middle East. The American University in Cairo Press. IDRC in association with ERF.

Box 6.3: Technical education and vocational training for industry

The current imbalance in Egypt's labour market is not due to lack of demand for labour but to the fact that manpower has not been adequately trained to meet market demand. New curricula based on real market needs, advanced training methodologies and skilled trainers are required.

Significant reform efforts are currently being conducted by the Government of Egypt in cooperation with a number of international donor agencies. Progress towards setting standards and improving the quality of technical education and vocational training is considerable. However, integration and coordination of efforts remain key to achieving competitiveness in international markets.

Due to the wide diversity of agencies involved in program implementation and absence of effective coordination among them, it is difficult to avoid duplication of efforts and waste of limited resources. More than 20 different Ministries and Authorities are currently involved. The need for coordination and cooperation between technical education, vocational training and the labor market is crucial. Because occupational qualifications are not mandatory (Occupation' is a generic term for all types of manual and non-manual work), Egypt is lagging behind in standardizing occupations and trades. Out of an existing 2800 occupations / trade, only 100 are standardized.

• **Technical and vocational programs**.The Ministry of Education (MOE) is responsible for technical education at preparatory and secondary school level in industrial, agriculture and commercial programs ranging from 3 - 5 years. Best Practices to improve quality include the Mubarak-Kohl Initiative and the practical training program provided by the Ministry of Military Production. The Ministry of Higher Education (MOHE) offers technical education at post secondary level through 45 technical institutes. The duration of programs offered at the technical institutes range from 3-4 years.

Vocational Training Programs are provided by a number of private and public institutions. Very few training programs are accredited by the MOHE and the concerned Chambers, the rest are of poor in quality since it is the providers who decide on standards. There are approximately 1237 training centers nation wide,(total capacity 175,500 trainees/year), of which more than half belong to the productive family and societies under the supervision of Ministry of Insurance and Social Affairs. About 18% of the programs offered by the centers are pre-service training for labour market, 14% sector specific training, and 67% social demand-oriented training. These training centers are in urgent need of upgrading.

• **Vocational training in the industrial sector**. It is offered by a number of ministries and affiliated centers, the most important is the Productivity and Vocational Training Department (PVTD). The PVTD offers only some accredited programs such as the apprenticeship program, the automation engineering and electronics programs.

PVTD employs 4000 staff members and supervises 38 training centers. In addition, PVTD has established a Training of Trainers Institute, a Center for Instructional Material Production, a Technology Centre, and an Experimental Centre to pilot new training courses before wider dissemination. PVTD runs three major programs. Industrial Apprenticeship Program (3 years) mainly targets graduates of preparatory education (15 year olds); training for Transformation Program (6 - 8 months) mainly targets new graduates and in-service workers; skills Development (1 - 6 weeks) mainly targets in-service workers.

The total budget of PVTD is limited to only about LE 50 million which mostly cover salaries and implementation costs of the apprenticeship program. Companies have to pay trainee fees to PVTD to cover training costs. An annual 12,000 students are enrolled at PVTD centres. To-date 300,000 students graduated from the apprenticeship program. The program was initiated in the early 60s with support from the german Government and was one of the most successful vocational training programs where students used to practice for 2 years in plants affiliated to the Ministry of Industry. Nowadays, the public holding companies and the private sector are reluctant to receive students in their plants for practical training. As a result, the program is currently providing only one year of practical training which is even so becoming difficult to realize.

• **Constraints and reform efforts**. Functional mapping and national skills standards are crucial for the development of an effective and efficient training system. In cooperation with the British Council, the Supreme Council for Human Resources Development has recently started a National Skills Standards Project (NSSP) which so far has succeeded in developing national standards (3 levels) and teacher manuals for 100 occupations from the total of 2800 in the industrial sector in Egypt.

A number of programs are currently being implemented to upgrade capacities of human resources and modernize enterprises. Some important ones are: the Skill Development Program (SDP) funded by the World Bank, the Technical Education and Vocational Training (TEVT) funded by the EU, the Mubarak-Kohl Initiative funded by the German government, the Industrial Modernization Program (IMP) funded by EU, the Egyptian Labour Market Services Reform (ELMSR) and the Business Development Services Support (BDS) funded by CIDA. Effective coordination among donors and coordination between programs and the different ministries involved is critical for the success of such reform initiatives.

Remaining constraints are mostly the difficulty of scaling-up and reaching out to all of Egypt's training centers. Another problem is the reluctance of the private sector to invest in training, especially for temporary employment (more than 50% in the food industries). There is also the need to overcome the passive role of the private sector in skills development programs.

Comprehensive reform will entail an integrated approach to face all of the existing challenges, namely: Fragmentation of the responsibility and accountability for human resource development among a wide variety of ministries and agencies; irrelevance of technical and vocational training programs to labour market needs; equipments at training centers that do not match with the modern technology applied in many of the plants, and the under utilization of capacity of training facilities. Four additional recommendations are specificto Egypt's training sector:

1. Creation of a National Authority for Industrial Training Quality Assurance and Accreditation responsible for setting standards and accrediting training programs and training providers. The new authority would be governed by a Board of Trustees that represents ministries, agencies and concerned chambers.
2. Re-engineering of PVTD so as to change its role from provider of services to that of promotional, regulatory and supervisory functions. Re-engineering would aim at: separation of ownership from management; separation of government regulation from delivery of training services; decentralization of authority and simplification of procedures; creation of management systems that allow effective participation of different stakeholders.
3. Allocate more financial resources for up¬grading physical resources for updating and adapting curricula, production of training materials, raising the proficiency and motivation of trainers.
4. Developing the necessary legal, financial and organizational frameworks for training institutions in order to ensure autonomy, transparency, accountability and competitiveness.

Source: Inas Hegazi, Senior Education Advisor, CIDA

Table 6.19: Proceeds of commodity exports by degree of processing

	98/99	99/2000	2000-2001	2001-2002	(US$ mn) 2002-2003***
Total exports**	4,445.1	6,387.7	7,078.2	7,120.8	8,205.2
● Fuels, mineral oil and prod., of which:	1,017.5	2,283.6	2,649.6	2,411.0	3,195.2
Crude petroleum	238.7	902.0	1,165.6	686.4	1,117.0
Petroleum products	761.0	1,370.9	1,466.8	1,694.6	2,043.8
Charcoal and types thereof	13.6	7.8	15.9	3.9	19.0
Cotton	207.7	166.7	144.5	83.2	199.2
● Raw Material, of which:	254.6	153.7	162.6	184.8	287.3
Potatoes	46.8	13.5	9.8	6.7	3.3
Citrus fruits	71.9	3.7	2.1	7.0	12.3
Medicinal plants	20.2	14.6	36.1	29.2	15.7
Raw aluminium	21.8	19.3	0.0	0.0	4.9
Spices and vanilla	5.6	0.7	0.7	0.5	0.2
Groundnuts	5.4	0.8	0.4	1.3	1.1
Flax raw	6.0	2.8	2.8	3.9	6.8
● Semi-finished commodities, of which:	418.6	282.8	398.5	440.5	657.6
Carbon	37.0	10.0	10.6	19.5	47.1
Essentials oils and resins	8.3	2.2	2.0	11.0	11.7
Aluminium, not mixed	117.7	38.4	82.8	46.4	61.8
Cotton yarn	195.1	101.0	121.3	147.0	153.1
● Finished commodities, of which:	1,675.9	2,603.7	2,788.4	2,955.7	3,017.3
Rice	122.7	41.9	78.5	78.5	63.2
Preserved & dried vegetables	19.0	3.1	2.7	3.8	0.7
Dried onion	15.0	2.7	0.2	1.0	1.6
Pharmaceutical products	60.2	32.2	59.2	82.5	129.9
Fertilizers	51.8	113.7	64.2	48.4	86.0
Carpets and other floor covering	68.5	61.4	59.8	83.8	62.5
Articles of iron and steel	122.5	89.7	272.3	257.5	155.1
Aluminium articles	78.2	31.7	47.3	124.5	147.6
Ready-made clothes	328.1	224.6	232.8	187.2	218.3
Cotton textiles	86.0	80.9	115.2	108.9	120.1
Undistributed commodities	870.8	897.2	934.6	1,045.6	848.6

* According to The Harmonized system (H.S.) (Degree of Processing)
** Including exports of free zones
*** Provisional
Source: Abeer El Shinnawy, based on Central Bank of Egypt, online

▼ **Growth in manufactured exports requires further reductions in the level of protection and the speeding up of institutional reform**

of manufactured goods are to play the role of an engine of growth. The starting point is to identify the factors that pushed producers to export in the first place despite having access to a protected market. Whether these factors are temporary or permanent in nature is the crux of the matter.

A survey of firms in the textile and ready made garment industry conducted in 2003 revealed that competition from smuggled imported goods – while denied access to duty free cheap and better quality inputs from abroad - was the main driving force underlying the increase in exports. (Elshennawy, 2003). For other sectors, the over-riding impression is that some producers diverted capacity to exports in response to recessionary demand at home and/or preferential treatment in some foreign markets.

Exporting under such circumstances can be just temporary in nature. In other words this is not part of a long-run strategy by firms to export. This implies that the economy — as long as it enjoys a protectionist stance — could revert to a situation of low exports as soon as a revival in domestic demand takes place or preferential treatment in Egypt's major foreign markets are eroded. With regard to textile and ready-made garment producers, the recent devaluation of the Egyptian pound against the dollar will make imported goods expensive and thus improves the competitive position of domestic producers in the protected domestic market.

It is not surprising that between 1998/99 and 2001/02 many export items (see Table 6.19) show a decline. This is particularly evident for exports of ready-made garments, which dropped from $328 million to $187 million, that is by 42% following the devaluation of the Egyptian pound. It is important to recognize that the issue here is not stagnant but rather declining exports.

Whereas Egypt's efforts to liberalize its trade regime following the initiation of the structural adjustment program in 1991 is a step on the right track, and has no doubt contributed to the increase in manufactured exports, which grew by 18% between 1990 and 1999 (ERF and FEMISE 2004) and by 19% between 1999/2000 and 2001/02 as evident from Table 6.19, as well as other exports like vegetables which grew by 227% over the period stretching from 1991 to 2003, etc., (CAPMAS, 1997 and 2004), sustained growth in manufactured exports requires further reductions in the level of protection and the speeding up of institutional reform.

While the subsidy to exports introduced recently has helped compensate for the cost arising due to poor institutions, it does not appear to have completely eliminated such burden. For example it is not clear how it can help exporters overcome problems of time delay in dealing with the bureaucracy. Besides, given the growing budget deficits, there is no doubt that many Egyptian producers will perceive the subsidy as temporary and thus will be reluctant to commit capacity to exports. Therefore, it cannot be considered part of a strategy for sustainable growth in manufactured exports.

On another front, the modest amounts of funds allocated from the government budget to scientific research, estimated at 0.1% of GDP in 2003-2004, (Handoussa, 2004), and given the very small number of R&D units associated with private productive enterprises (Arab Human Development Report 2003 in Handoussa 2004) all are indications of the limited capacity of industry for innovation and product differentiation in general.

These constraints reduce the prospects for sustained export growth, particularly in light of the expected erosion of preferences in major export markets in the future. It is therefore clear that the limited capacity for innovation is the by-product of protection. Only when exposed to competition in the domestic or on world markets will firms have an incentive to innovate.

Two other factors will influence the long run prospect of Egyptian exports:

1. widespread use of computerized technology – which is known for its flexibility in reorienting production to different goods as opposed to mechanical technology – will require high skills and high literacy rates. (Golladay et al, 1998). This implies that Egypt cannot continue to compete on world markets based on unskilled and half literate labor force;
2. consumption patterns and leisure activities have recently shifted towards more sophisticated and and skill intensive goods – in response to higher incomes - as opposed to traditional manufactured goods. Unless Egypt accommodates these new patterns through upgrading its labor force skills, its share of world exports is likely to shrink over time. ■

▼ Lack of R&D indicates a limited capacity of industry for innovation and product differentiation

Annex 6.1: Cost Estimate for SME Business Resource Centers

Egypt has three main models of business resource centers (BRCs), all of which offer the same basic services. The network of BRCs administered by the Social Fund for Development (SFD) in Mahala, Beni-Suef and Assiut, together with the sector-specific furniture industry hub in Damietta, are typical in that they provide a forum for fostering competition, sustainability and linkages between businesses. Also on offer are various services including technical assistance; business awareness and planning workshops; seminars on management, marketing, competitiveness, quality, and specifications; training and skills development; information on regulations, laws, suppliers, and trends; technical assistance in preparing a business plan, marketing, and feasibility studies; and access to small business loans. The fixed cost for one such BRC is LE 0.5-1 million, and its running costs are in the range LE 100 thousand-200 thousand per year.

The second model, a joint venture between UNDP and SFD, specifically targets small and micro enterprises at the local level in Giza, Fayoum, Beni-Suef and Menia with innovative approaches such as a toll-free business advice hotline. Each of these centers is expected to create around 1,000 jobs over 3 years and costs around LE 500 thousand-600 thousand to set up and LE 600 thousand to run.[32]

The third model, set up under the Industrial Modernization Program (IMP), saw BRCs deployed as catalysts to industrial modernization and entrepreneurship among more modern SMEs employing a minimum of 10 workers. A total of 20 BRCs are planned for the most important industrial locations in Egypt, and by 2003/2004, the first eight had been established in Alexandria, 6th of October, 10th of Ramadan, Cairo, Assiut, Damietta, Borg el Arab, and Sadat City.

The approach of all three of these programs has been to establish BRCs in the main industrial cities and in the capitals of governorates. However, the EHDR proposes establishing BRCs and TCs in the cluster communities that most need them, specifically, in 15 areas specialized across four main industries.[33] A special survey was conducted for EHDR 2005 to identify appropriate locations to establish BRCs and TCs to serve SMEs.[34]

Main features of selected SME clusters

Food and beverage industries. There of the clusters in Shibin el-kanater, Abou-Hamad and Malawy, are specialized in the food and beverage sector. Since the three areas only host a small number of enterprises, they could each be served by one small BRC (the number of beneficiary enterprises are 75, 50 and 40 respectively) The fixed cost of a BRC is estimated at LE 100 thousand.

Weaving, textiles and ready made clothes. Survey data shows that these industries are concentrated in El-Mahala and three areas of Cairo (el- Mosky, Kasr el-Nil and el-Darb El Ahmar). Although the clusters already have some access to banking and other services (Kasr el-Nile has three banks that offer loans to SMEs, el-Darb el-Ahmar has one, while el-Mahala has one active SFD office and two SME associations); their situation could be improved through the provision of the additional facilities including five large BRCs and two TCs. The number of beneficiary enterprises add up to 47,500 at a fixed cost of t LE 9 million and an annual running cost ranging between LE 200, 00 and LE 300.000.

32. Through lending and training for specific jobs in specific factories.
33. Cottenet,E. (1999), Local Development of SME Cluster in Egypt, Centre d' Etudes et de Documentation Economique, Juridique, et Sociale (CEDEJ) and Centro Studi di Politica Internazionale (CESPI).
34. The information in tables from 2-12 are derived from the field listing of the cluster communities in Egypt (April 2005).

Table 6.20: Suggested support to the wood and furniture industries

BRCs or TCs	Number	District	Beneficiary enterprises	Fixed cost LE mil	Annual running cost LE 000
TC	1	Damietta	3,200	2.0	300
Large BRC	1	Damietta	3,200	1.0	200
Small BRC	1	Manasra	1,200	0.5	100
Small BRC	1	Darb Saada	450	0.5	100
TC	1	Manasra and Darb Saada	1,650	2.0	300
Small BRC	1	Ibshway	310	0.5	100

Source: A. El Mahdi, based on special survey for EHDR 2005

Table 6.21: Total fixed /running costs for BRC and TCs

Sector	BRCs and TC	No	Fixed cost LE mil	Op. costs LE 000
Food and beverages	large BRC	0	0.0	0
	small BRC	3	1.5	300
	TC	0	0.0	0
Total		3	1.5	300
Weaving and textile	large BRC	5	5.0	1,000
	small BRC	0	0.0	0
	TC	2	4.0	600
Total		7	9.0	1,600
Wood and furniture	large BRC	1	1.0	200
	small BRC	3	1.5	300
	TC	2	4.0	600
Total		6	6.5	1,100
Heavy industries transp.,	large BRC	2	2.0	400
Eng./equip.	small BRC	2	1.0	200
Total	TC	2	4.0	600
Grand Total		6	7.0	1,200
	large BRC	8	8.0	1,600
	small BRC	8	4.0	800
Total No./ cost	TC	6	12.0	1,800
		22	24.0	4,200

Source: A. El Mahdi (2005), Ibid

Table 6.22: Estimate of funding required and jobs created in cluster communities, 2005-2015

Total amount of finance	Duration	Beneficiary enterprises	Direct created jobs	Indirect created jobs
LE 1.6 bil	Ten years	32,315	161,575	20%-30% of direct jobs

Source: A. El Mahdi (2005) ibid

***Wood and furniture*.** The city of Damietta is better served than most clusters in that it currently has four banks, one active SFD and two SME support associations. Apart from Ibshway, which has two banks, the other wood and furniture clusters have no support services.

Heavy industries. Transportation, and engineering equipment industries: The only support directed towards these sectors is in Madinet El-Salam, which has one bank. The four districts identified are:

- Boulak (one large BRC and one TC);
- America (one large BRC and one TC);
- Manashiet Nasser (one small BRC);
- Madinet El Salam (one small BRC).

The total number of beneficiaries is 5,590 enterprises. The fixed cost amounts to LE 6.0 million and annual running costs are estimated at LE1,0 miliion

The need for finance

One of the major facilities lacking in the 15 cluster communities is access to financial services such as banks, venture capital and leasing. The average size of loan required by each enterprise is around LE 50 thousand, a sum which could, according to a 2003 study which estimated the cost of creating one new job at LE 10 thousand, create 5 new jobs.

Thus, a total of LE 1.6 billion could serve the 32,315 enterprises across the 15 cluster communities and create 161,575 job opportunities. This figure represents a minimum estimate: in fact the number of jobs created could be substantially higher if the finance were associated with technical assistance and training for workers, as the combination of these three factors would simultaneously improve product quality as well as the size and market scope of enterprises.

Annex 6.2 Measuring the Export Potential of Egypt Manufactures

Following the methodology developed by UNCTAD, export growth is determined by three factors: changes in global demand, changes in competitive conditions in the exporting country, and product diversification. Table 6.25 shows the results of applying this methodology to Egypt's broad export categories of foods, agricultural raw materials, fuels, ores and metals and manufactured goods in 1990, 1995 and 1999. External demand constrained Egypt's exports of fuels between 1990-1995, while overall increases in world demand benefited all the other export categories. Demand remained favorable between 1995-2000, apart from in food and agricultural raw materials, although Egypt also experienced losses of competitiveness in all export categories except agricultural raw materials during this time, which suggests that Egypt's export growth was constrained during the 1990s by supply factors affecting its competitive position, rather than by external demand conditions.

Two export growth scenarios: Two scenarios have been projected for the export performance of the three sectors that between them represent more than 90% of Egyptian non-oil exports (textiles and ready-made garments, agro-industrial products, and chemicals (including pharmaceuticals). The two scenarios are based on Table 6.23: the 'best case'

Table 6.23: Best Case and Business as Usual scenarios for manufactured exports

	Value of exports in 2003 mil $US	Expected increase in exports (%)	Value of exports in 2015 mil $US	Expected increase in direct jobs created elasticity = 0.45 (%)	Expected increase in direct jobs created (sector 1) * (%)	Expected increase in direct jobs created (sector 2)** (%)	Expected increase in direct jobs created (sector 3) *** (%)	Expected increase in direct jobs created (sector 4)**** (%)
				Ready made garments				
BC scenario: 15% annual growth	884	328	4729	147	7	36	10.5	41
BU scenario: 5% growth	884	79	1587	35	1.7	8	2.2	9
				Agro-industry				
BC scenario: 15% annual growth	158	328	845	141	15.5	10.7	6	91.3
BU scenario: 5% growth	158	79	283	33	2.7	1.7	0.73	19.0
				Chemicals and Pharmaceuticals				
BC scenario: 15% annual growth	521	328	2787	82	20.5	68	43	7.65
BU scenario: 5% growth	521	79	935	19	3.7	14.5	9.3	1.50

Ready made garments and textiles
* ISIC 313/314 elasticity = 0.5
** ISIC 321, elasticity = 0.45
*** ISIC 322, elasticity = 0.45
**** not classified elasticity = 0.5

Agro-industry
* ISIC 311/312 elasticity = 0.43
** ISIC 353/354, elasticity = 0.30
*** ISIC 351/352/355/359, elasticity = 0.25
**** not classified elasticity = 0.5

Chemicals and pharmaceuticals
* ISIC 351/352/355/359, elasticity = 0.25
** not classified elasticity = 0.5
*** ISIC 390, elasticity = 0.6
**** ISIC 382, elasticity= 0.3

Source: A Ghoneim, Background Paper, EHDR 2005

(BC) scenario is taken from data which shows that Malaysian exports grew at an average annual rate of 15% over the period 1985-2000; while the 'business as usual' (BU) scenario uses Egypt's actual growth rate during this time of 5%.

The methodology depends on identifying the most promising sectors mainly through unit labor cost. We then set three scenarios for two different annual growth rates (15% and 5%), and calculate the direct impact on job creation by multiplying the percentage increase of exports by labor output elasticity to arrive at the direct amount of jobs created. Forward and backward linkages are identified and we multiply the labor output elasticity of the related sectors by the technical coefficient that relates our promising sector to related upstream and downstream sectors to arrive at the expected increase in output and employment.

Table 6.24: Impact of demand and competitiveness factors on Egypt's exports, 1990-2000, (US$ mil)

	Value of exports 1990	1995	1999	Factors underlying export change 1990-1995		1995-2000	
				Demand [1]	Compet.[2]	Demand[1]	Compet [2]
All food items	250	338	312	96.5	-13.2	-20.3	-5.3
Agric. raw materials	245	210	277	56.3	-124.9	-55.1	101.4
Fuels	230	220	154	-56.6	555.0	503.5	-813.1
Ores and metals	762	1,285	1,292	60.9	-97.2	12.0	-85.0
Manufactured goods	1,095	1,388	1,299	491.6	-307.3	253.2	-425.1
Total	2,582	3,444	3,501	1,090.5	-334.3	652.2	-731.5

* Egypt's export structure is for 1999 while that of the world is according to year 2000
1. The demand factor isolates the effects of changes in global demand and is measured by the change in exports that would have occurred had there been no change in Egypt's share in world exports
2. The competitive factor shows the change in Egyptian exports due to changes in the country's export market share

Source: H. Kheir-El Din and A.Ghoneim (2005) contribution to 'Egypt's Country Profile' FEMISE Report based on UNCTAD Handbook of Statistics, 2002

The case of ready-made garments and textiles: The value of exports in 2003 (the latest year available) was US$ 884 million. The BU scenario gives an annual rate of growth of 5%, thus the value of exports will be US $1587 million in 2015. The percentage increase in the amount of jobs created will be: 79%*0.45 (labor output elasticity), giving 35%. The indirect effects on job creation are another 9% increase in output of 313/314 by the labor output elasticity (0.5) in this sector would be 15% and we calculate the impact on creating indirect jobs as well in the three most important related sectors that are linked backward to this sector. The BC scenario on the other hand projects an annual growth of exports of 15%, reaching US$ 4729 in 2015 and a multiple of indirect jobs of 41%.

These three sectors have very different characteristics. The textile and garment sector has a high employment generation ability, low productivity, weak forward linkages, and high backward linkages. Although the sector has been the largest absorber of employment in Egypt, its size is still smaller than in comparable countries. And since the skills generally required to work in this sector are not high, increased textile exports are likely to have a positive impact on poverty as jobs will be created that only require low skills.

Growth in agro-processing is likely to have a positive impact on the poor via its backward linkages to the agriculture sector, which is one of the largest employers of the poor in Egypt. Hence, the promotion of the agro-industrial sector can lead to much needed growth in non-agricultural activities in rural Egypt. For example, the locational advantage enjoyed by rural areas for food processing makes this sector a particularly good candidate for promotion as part of the proposed growth strategy targeted at the poor.

The chemicals sector is different again as it includes many industries, some of which, such as pharmaceuticals, require intermediate skills, whereas others like plastics have lower skill requirements. The chemical sector has strong forward linkages with other sectors that employ a large proportion of unskilled and low skilled labor, including services such as construction. Moreover, the chemicals sector is known to complement the large number of low-skilled manufacturing activities including ceramics, glass and all building materials. Hence, by boosting the production and export of chemicals, it is likely that the spill-over effects of this sector would be positive and large.

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● CHAPTER SEVEN

Services as Engines of Employment Growth

The global trend indicates that the growth in services has far outpaced that of goods including agricultural and manufacturing and is expected to continue well beyond the EHDR vision period. There are two major factors behind this trend. The first is the continuous improvement in household incomes that favors expenditure on personal services such as health, education, entertainment and tourism. The second is the ICT revolution which is boosting all types of high-tech business services and is itself accelerating the process of globalization of production, investment and trade. These in turn translate into growing demand for finance, transport and other trade-related services. Housing and construction is also envisaged as a sector of high growth and employment potential, given the huge pent-up demand and the unutilized mortgage and credit market.

The EHDR vision encompasses a strong focus on the opportunities in all of the high growth emerging service sectors for which the country already enjoys or can acquire dynamic comparative advantage. Tourism, ICT and other tradable services have been identified as key sectors that can generate large numbers of new jobs for the thousands of graduates of secondary school and university, provided language skills and other specialized training are better geared to meet international standards dictated by demand.

Additionally, the nontradable sector of housing and construction is identified by the vision as another high employment growth sector that can at once — and with appropriate policies — meet the needs of low-income families and employ their low-skilled labor. This will also boost domestic savings and ensure the redeployment of population towards uninhabited areas according to sound urban plans (see Chapter Eight).

▼ Tourism has been able not only to meet the targets of the National Five Year Plan 2002-2007 but has surpassed them

1. Tourism leads the way

Tourism represents a potential pivot for development in Egypt and is also a major source of foreign exchange. According to a follow-up report by the Ministry of Planning on the Economic and Social Development Plan 2003-2004, the contribution of the tourism industry's hotels and restaurants sector to GDP was LE 10.4 billion, or 2.3% of GDP. Further, for the second year running, the rate of growth was the highest compared to all other sectors, at 38.4% in 2003-2004 as compared to 18% in 2002-2003. The sector received only 2.5% of aggregate investment in that same year.

An important factor in considering tourism's high growth potential is the relative development of the sector's infrastructure and superstructure, evident from the available data on hotel rooms and facilities, whether completed or under construction.

Recent years also saw a noticeable development in the number of tourism education facilities as well as structured training programs by the Egyptian Tourism Federation, which helps not only in availing the supply but also the quality of labor in this key sector.

Table 7.1: Number of hotel and capacity, end 2004

	Current		Under construction		Total	
	No	000	No	000	No	000
Hotels	932	132	455	98	1,387	230
Floating hotels	275	16	94	3	369	19
Total	1,207	148	549	101	1,756	249

Note: Capacity 000 Person
Source: Ministry of Tourism (2004)

Table 7.2: Projected number of tourists, tourist nights and revenue

Year	Tourists mil	Tourist nights mil	Rev. $ bil
2003	6.1	53.1	4.4
2004	6.5	57.1	4.7
2005	7.0	61.3	5.1
2006	7.5	65.9	5.4
2007	8.1	70.8	5.8
2008	8.6	76.0	6.2
2009	9.3	81.7	6.7
2010	9.9	87.8	7.2
2011	10.6	94.3	7.7
2012	11.4	101.3	8.2
2013	12.2	108.8	8.8
2014	13.1	116.9	9.5
2015	14.0	125.6	10.1

Source: Hatem El Karanshawy, EHDR 2005, Background Paper

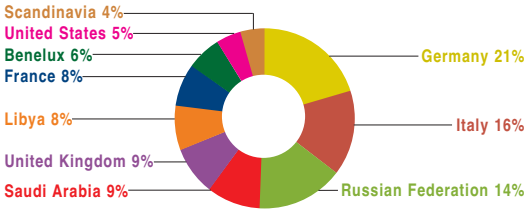
Review of performance

The number of tourists, tourist nights and revenues increased throughout the period with the exception of the years 1998 and 2001, due to specific incidents and circumstances namely the terrorist attacks in Luxor and the Asian crisis in 1997, and the September 11 attacks on New York and Washington in 2001. A noticeable increase in the number of tourists, tourist nights and revenues began in 2004, rising from 17% in 2003 to 32.7% in 2004. Rooms capacity increased throughout the period, but at a lower rate, reflecting an increase in average occupancy rates, both in land as well as floating hotels whose rooms represent 7.7% of total room capacity (Table 7.1).

Inbound tourism

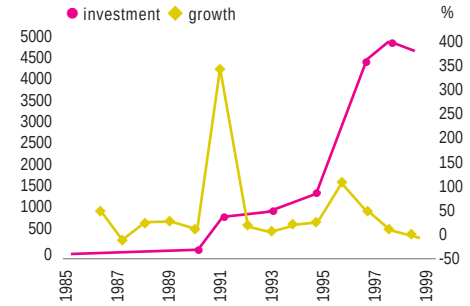
Recreation tourism accounts for 91% of inbound tourism, which is a trend similar to prevailing worldwide trends. This means that Egypt faces a good deal of competition in this respect. It also implies that there is still much scope for expanding other types of tourism such as convention, business and health treatment. The

Figure 7.1: Top ten generating countries by tourist nights, 2004



Source: Ministry of Tourism (2004)

Figure 7.2: Development of tourism investment 1985 to 1999



Source: Ministry of Tourism (2004)

Egyptian market is very concentrated, whether by looking at the number of tourists or tourist nights. Figure 7.1 shows that European markets accounts for 83% of inbound tourist nights, which is the largest generating market in 2004, and the largest numbers came from Germany, Italy, and the Russian Federation. The second largest group is from Arab countries, which represent 17% of inbound tourist nights, the top countries being Saudi Arabia, followed by Libya.

The sector has been able not only to meet the targets of the National Five Year Plan (FYP) 2002-2007 but has surpassed them. Tourism is, in fact, the only sector that has been able to meet all the expected targets outlined in the FYP.

The road ahead

Domestic tourism

In general, paying increased attention to domestic tourism is of special importance due to the following:

- improving the economic performance of tourist establishments. This significantly increases occupancy rates, particularly if domestic promotion activities are centered around the low inbound tourist seasons. It also eases the impact of any fluctuations that might take place in the number of inbound tourists;
- reducing the outflow of foreign currency through the reduction of outbound tourism by Egyptian nationals by increasing the appeal of internal tourism;
- increasing awareness of tourism as a vital industry to Egypt and promoting hospitality in the encounter with inbound tourists, to upgrade the process of cultural exchange;
- increasing employment in the sector. Unfortunately, little documented information is available about domestic tourism. The Ministry of Tourism is now working with CAPMAS to create a basic database on domestic tourism.

Where the focus should be

New destinations. Tourism can sometimes be destination rather than country oriented. Developing new destinations in Egypt would be greatly beneficial in expanding already inhabited areas and promoting sustainable development there. For example, the North Mediterranean coastline offers enormous potential due to its proximity to other Mediterranean and European countries. Utilizing this advantage would require not only the upgrade of present sites (Marsa Matrouh. for example) but would benefit from direct transport linkages (marinas, airports). Siwa Oasis is in close proximity and could become the hub of an 'oases' of Egypt experience.

New products. The enhancement of other products, notably residential and family tourism has been successfully exploited in countries such as Spain and Greece. Both types of products are characterized by longer average length of stay — or in the case of retirement homes — semi-permanent stay. Egypt has yet to deploy its comparative advantage in this area, namely temperate climate, low cost of living, and scenic but 'virgin' sites along the Red Sea coastline, for example, capable of carrying secondary recreational activities such as sailing, diving or golf. Residential and repeat visits will increase linkages with many other sectors of the economy

▼ **Recreation tourism accounts for 91% of inbound tourism and there is much scope for expanding other types of tourism in conventions, business and health**

Box 7.1: Temporary and informal employment in tourism

Although full-time employees form the core of the Hotel and Resort labor force, there exists a wide range of non-standard employment in the business. They encompass seasonal, temporary, casual and part-time employment.

Temporary workers are estimated by hoteliers and other practitioners in the field to vary between 25% and 30% and even up to 40% in some branches of activities, especially in small enterprises in the informal sector.

The tourism sector is also a major emlployer of vulnerable people. Almost 80% of total workers belong to the young age brackets below 45 years of age. Around 38% of all employees in the hotel sector are aged between 15 and 25 years and 37% aged between 25 and 35 years.

Child labor is a common phenomenon in the tourism sector. Many boys and girls below 15 years of age are engaged in small activities related to hotels and restaurants, the entertainment sector or the souvenir trade, often as porters, street or beach vendors.

Most children work in the informal sector without contracts or registration. They also work on a casual or temporary basis and in most cases with no frequent presence at workplaces. Moreover, because of the legal prohibition on child labor below the age of 14, employers tend to deny the existence of working children to evade penalties.

Furthermore, the tourism sector offers a considerable number of job opportunities to women. At least 25% of the workforce is estimated to be female workers; and this proportion is likely to increase over time with the spread of education

Because of income insecurity, young people abandon their temporary jobs to take up other occupations. The industry suffers from job instability due to this transient status of employment. This is particularly the case in the informal sector of the industry which tends to attract workers from the most vulnerable groups of the population, and hence increases the job-insecurity of employees.

At the same time, due to its irregular and intermittent nature (seasonality/ peak hours) and its need for operational continuity (work shifts/temporary staff), the sector is acknowledged to be arduous in terms of workloads and work schedules. Long working hours, heavy workloads, short rest periods, night and work shifts, weekend and public holiday work are salient features of the work organization of the industry.

*Source:*Hala Sakr, Cairo University

▼ **Promoting hospitality with inbound tourists will upgrade the process of cultural exchange**

(construction, furniture and household supplies, the medical and transport sectors) but will require international standards of planning and execution, with private sector participation. Health and wellness products are a natural extension of this type of tourism development.

Expansion of existing products. Special attention should be given to further develop and encourage existing types of tourism activities, for example, the growing conference business, safari and adventure tourism, including the exploitation of recently excavated prehistoric and neolithic sites, culture tourism that attracts new target visitors by adding aspects like historic or faith-oriented packages (Greco/Roman Egypt, the Coptic monasteries, following in the footsteps of the Holy Family, the Islamic heritage and Old Cairo, the architectural beauties of Islam, and so forth).

New markets. The opening up of new markets, namely from the Far East, China and India in particular, is important. Developing the existing market in the US is another challenge, taking into consideration the fact that the European market is likely to be close to saturation, particularly with so many competing destinations for recreational tourism. In addition, these new markets are important not only for the anticipated increase in inbound tourists, but also because tourists from these destinations are culture oriented and their duration of stay tends to be longer.

New clusters in existing markets. These could offer products that are designed specifically for particular groups, such as high spending elderly retirees, groups affiliated with international benevolent associations such as the Rotary Club, hosting high profile seasonal festivals or international sporting events and at an international quality level, catering to speciality interests such as archeology or desert trecks.

A vision for tourism: best case projections

In 2004, tourism in Egypt surged forward, and several factors contributed to this increase. On the domestic front, the floatation of the Egyptian Pound added to the competitiveness of Egypt as a destination, together with improvements in tourism facilities. On the external front, Egypt launched a successful promotion campaign in major tourist generating countries. Since Egypt pricing is dollar-based like other South and East Mediterranean destinations, the appreciation of the euro versus the dollar contributed to the large influx of European tourists to these destinations.

As a result, the area as a whole witnessed a noticeable increase. However, long-term projections cannot be based on many of these factors, some of which are one-off contributions and others outside of Egypt's control.

According to the World Tourism Organization the number of inbound tourists internationally is expected to grow by 4.1% and that of the MENA by 7.1% annually. Therefore, a more likely growth rate of 7.2% in the number of tourists and revenues annually has been chosen as a base for future projections and 2003 was selected as the base for the calculations. Tourism revenue is based on the results of the sample surveys carried out periodically by CAPMAS. The surveys indicated an average expenditure per tourist of US$ 115-125/night. However, after the floatation of the Egyptian Pound, the Central Bank of Egypt reduced its estimate to reflect the impact of the devaluation to US$ 75/night, and an annual growth rate of 7.2% is selected for tourists, while a growth rate of 7.4% is projected for the number of tourist nights. Given these growth rates, the number of tourists in 2015 will reach 14 million and tourism revenues US$ 10.1 billion.The number of tourist nights will reach 125.6 million on the assumption that the average length of stay is 9 nights as in 2003, despite its having reached 11 nights in 2004 (Table 7.2).

With regard room capacity, the required number of rooms by 2015 is 270 thousand, to meet the demand of the expected number of inbound tourists. The calculations are based on 1.8 tourist/room (most tourists either come in groups or couples, and only a small proportion of business travelers occupy single rooms), with a 75% average occupancy rate, and 53.1 million tourists in the base year 2003, and 9 nights average length of stay per tourist.

Impact of the projections on the economy

Investments in hotels and infrastructure

A total of LE 38.9 billion is required for anticipated room growth. This is based on the need for 270 thousand rooms by 2015, of which 99 thousand rooms are currently under various stages of construction. The total average cost per new room is LE 0.4 million (hotels are in 3 and 4 and 5 star category), and LE 0.3 million is the estimated average cost per room presently under construction. This is in addition to LE 9.7 billion required for the development and upgrading of the necessary infrastructure.

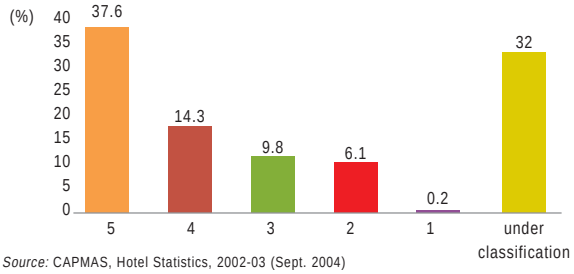
The tourism sector will not be facing any problems in financing these investments. This can be seen from reviewing the historical record of total investments in the sector, including foreign direct investment, and the country of origin (Figure 7.2). This shows investment in the tourism sector. As can be seen, investments have been growing throughout the period of the 1990s at an average annual growth rate of 46%, recording a cumulative aggregate of LE 23.3 billion.

Box 7.2: Investment allocation by class of hotel

The comparison of employment and labor remuneration by hotel category displays a bias in favor of four and five star hotels. These luxury accommodation facilities employ approximately 52% of the total hotel workforce with a remuneration share as high as 66%, whereas one and two star hotels only employ 6.5% of the sector's labor force with a modest wage share of 3%.

This bias can also be depicted from Figure 7.3 concerning investment allocation by hotel classification. More than half total investments are allotted to four and five star hotels, and on the assumption that 50% of the hotels under classification belong to these two categories, the share of luxury hotels would jump to almost 75%; leaving a moderate share of 25% to lower categories. This distribution pattern has serious implications from an employment perspective as it reflects high capital intensity of the hotel business as well as little concern with the development of SMEs despite their employment potential.

Figure 7.3: Investment allocation by hotel classification, 2002/2003



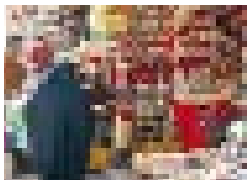
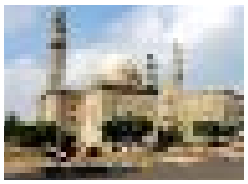
Source: CAPMAS, Hotel Statistics, 2002-03 (Sept. 2004)

The lower hotel categories are less capital intensive, implying higher employment per unit of investment. Furthermore, there is a changing demand for these lodging facilities In recreational areas, being more suited for beach tourism, especially by middle class travellers who constitute today the bulk of package tour visitors. In principle, there is a need to shift emphasis from large-scale integrated resort development schemes to small-scale tourism facilities that enjoy low capita intensity and match recent changes in visitors' preferences and hence market demand. Of particular significance is the establishment of less luxury type lodging facilities (two and three star hotels), in the newly emerging tourism resorts along the North Western Coast, South Sinai and Red Sea Coast.

Source: Hala Sakr, Cairo University

▼ **Inbound tourism is expected to grow by 7.1% annually in MENA**

Box 7.3: Future prerequisites and challenges for sustainable tourism


A sustainable tourism development plan

- a continuous inflow of private investment into the sector, domestic and foreign;
- changes in legislation to encourage residential tourism in off peak seasons;
- development of airports and ports at a rate corresponding to the rate of inflow of tourists and their specific destination in Egypt;
- eliminating the monopoly of the national airline and promoting competition;
- increasing linkages between the sector and the rest of the economy, especially in the direction of off hotel demand for local products by tourists.

Source: Hatem El Karanshawy, Background Paper, EHDR 2005

Table 7.3: Contribution of Egyptian, Arab, and foreign issued capital to tourism capital stock, 31/12/2002

	Egyptians		Arabs		Foreigners	
	LE bil	%	LE bil	%	LE bil	%
Tourist companies	26.5	83	3.5	11	1.9	6

Source: Ministry of Tourism (2004)

Table 7.4: Direct employment in tourism, 2001-2002

Type of activity	Number 000
Hotels and restaurants	427.7
Air travel	189.1
Transport facilities and travel agencies	264.6
Car rental	0.1
Entertainment, cultural and sports	71.9
Total	953.4

Source: H.Karanshawy calculations, based on CAPMAS Statistics

Table 7.5: Ratio of direct to indirect employment, 2004

Country	Egypt	Morocco	Tunisia	Indonesa	Cyprus	Turkey
Ratio	1.1	1.3	1.2	0.6	1.1	1.0

Source: World Tourism Organization (2004), www.wto.org

As for the composition of FDI, Table 7.3 shows that Arab investment is higher than that of European counterparts. Up to 1995, projects with Arab participation reached 174, whose values totaled LE 43,647.98 million, and where Saudi Arabian investments represented 83% out of the total number. It is obvious from Table 7.3 that most of investment is Egyptian, constituting 83%, which is very significant, since it decreases Egypt's vulnerability to fluctuations of FDI.

More effort is needed to nurture and exploit off-hotel demand for local products through tourist expenditure

Employment generation

Interpretation of the available data on employment in the tourism sector needs confirmation, but indicators tentatively suggest an anticipated employment generation capacity of 200 thousand per million tourists, given the present length of stay per tourist. Table 7.4 shows that there are close to one million employees who are directly employed in economic activities related to the tourism sector in 2001-2002, of which 88% are males. Table 7.5 shows the ratio of indirect to direct employment in several countries in the tourism sector in 2004, and as can be seen, Egypt falls within the same range as sample countries considered competitors.

Foreign exchange

Foreign exchange generated by the tourism sector has always been of great importance . Net foreign exchange contribution of tourism is one of the key elements in directing a large proportion of investments into this sector. FDI and national investments extend from hotels to transportation to daily consumer goods.

Increasing linkages between the tourism sector and the rest of the economy will add great potential value to the economy and to employment. At the moment the highest links are in the areas of food supplies to hotels, construction activities and textiles. More effort is needed to nurture and exploit off-hotel demand for local products through tourist expenditure.

Relation with other sectors

The tourism sector has forward linkages with 18 sectors and backward linkages with 29 sectors, local and foreign content representing 90% and 10% respectively of the total value of inputs.[1] Tourism has a significant impact on stimulating other sectors of the economy and creates indirect employment opportunities, estimated for 2003 and 2004 to have been 242 thousand and 285 thousand jobs, respectively, the most important backward linkages are with industry (food, beverages and textiles), services (transport, trade and finance), agriculture and construction.

1. Ministry of Planning, Tourism Input-Output Table 2003-2004. Unpublished.

Box 7.4: Egypt's ICT Trust Fund uses private-public partnerships

The Information and Communication Technology Trust Fund for Egypt was established jointly by the Ministry of Communication and Information Technology and the United Nations Development Programme in January 2002. The Fund is a mechanism to create public-private partnership in support of the use of information and communication technologies to foster socioeconomic development. The Fund's main purpose is to use ICT to foster development in Egypt by increasing awareness of its benefits, and by making it more accessible and affordable.

Trust Fund projects. Through a series of coordinated initiatives, the Fund empowers communities by providing access to appropriate information:

- *mobile ICT unit.* The project involves the use of buses specially equipped with functional media labs to service remote and poorly serviced geographical areas. The units stop at schools and communities for up to two weeks.
- *community knowledge generation library.* The initiative establishes a mechanism that will enable information gathering, validation, and sharing that is relevant to local communities starting it on an electronic library accessible on the internet (www.fekrzad.com).
- *the community development portal*: This project provides a community based portal as a starting point for suburban and rural citizens to find and access the information of general interest such as health, agriculture, and family planning. The portal bridges urban, suburban and rural divides and hopefully fuels additional demand for services and infrastructure. (www.kenanaonline.com)
- *ICT for illiteracy* (CD-ROM tutorial for basic literacy): This scheme involves a simple, self based, interactive CD-ROM containing a courseware for illiteracy lessons to be distributed through the IT Club network and other education providers.
- *SMART schools network.* The Smart Schools Network provides technical and educational ICT support for schools, being introduced as pilot projects in fifty schools, with the objective of providing computer literacy for preparatory school students. School computer labs perform the role of Community Learning Centers after schools hours providing citizens with trainings in IT skills and ICT use for development purposes.

Source: Amany Nakhla, UNDP

▼

The creation of the MCIT, and adoption of the national ICT plan have resulted in tremendous growth in that sector

Value-added tax (VAT)

Table 7.6 shows the development of revenues from the VAT on tourist activities from 2001-2002 to April 2004-2005. As can be seen, revenues have been increasing throughout the period, even as a percent of the total VAT, highlighting the importance of the sector as a source of revenue for the GOE.

Table 7.6: Revenues from VAT on tourist activities, 2001/2002 to 2004/2005

Activity	FY 2002 LE mil	FY 2003 LE mil	FY 2004 LE mil	FY 2005* LE mil
Hotels and restaurants	228,733	277,464	499,596	842,054
Transportation	64,280	87,822	112,801	137,981
Total VAT on tourist activity	293,013	365,286	612,397	980,82
VAT on tourism as % total VAT	1.7%	2.0%	2.9%	5.6%

*Till April 2005
Source: Ministry of Tourism (2005)

2. The Information Revolution

The role of ICT

The current information revolution is often attributed to the creation of web technology in the late 1980s.[2] The required computer interface (web browser) was made available free of charge, opening access to information to millions of potential users. In 1993, the internet allowed electronic commercial activities, including the exchange of services and goods at the fingertips of entrepreneurs worldwide. There has also been a surge in other internet-based applications,[3] impacting on peoples' socioeconomic and human development.[4] These include 'classical' technologies such as fixed telephone lines, TV, radio, mobile telephone and wireless technologies. Personal computers have evolved to cater to various users, from the simple citizen (India's 'Simputer'), to the business person using a handheld PDA. The spread of these tools is re-shaping the ways people communicate, socialize, get an education, do business, and access information.

Impact of ICT on human development [5]

The impact of ICT on human development may be categorized under three headings:

ICT as a sector of economic activity. In the mid 1990s, the ICT sector became the world's first industry to surpass leading industrial sectors such as automobiles and steel, with its average annual growth rate being two to three times the growth rate of the world economy. The ICT sector provides telecommunication and networking services, software development and ICT value

2. US National Research Council (1994), Realizing the Information Future: The Internet and Beyond., National Academy Press.
3. UNCTAD (2003), E-Commerce and Development Report.
4. World Economic Forum/INSEAD (2004/05), The Global Information Technology Report: Efficiency in an Increasingly Connected World.
5. UNDP(2004), Promoting ICT for Human Development in Asia.

added services. It provides significant opportunities for exports and new jobs.

The creation in 1999 of Egypt's Ministry of Communications and Information Technology (MCIT), and the adoption of a national ICT plan that is geared towards the support of the ICT sector have resulted in tremendous growth of that sector. The ICT specialized workforce grew from 10 thousand to over 38 thousand professionals, and ICT companies from 266 to 1,571, with the combined investments exceeding LE 10 billion and providing about 40 thousand jobs. As investments rise, as they are likely to, prospects for employment will also increase.

▼ The Bibliotheca Alexandrina is participating in an international initiative digitizing one million books and making them publicly available

ICT as an enabler or input for enhancing human productivity. ICT provides a platform for empowering businesses (e-business), including manufacturing, trade, healthcare, and travel. Likewise, ICT provides the means for improving the efficiency and effectiveness of government services and public administration (e-government). Currently the Egyptian e-government initiative is led by the Ministry of State for Administrative Development (MSAD) and has set a clear strategy for leveraging the efficiency and effectiveness of various government services delivery mechanisms. The e-government Initiative aims at providing 'citizencentric' services in cooperation with various ministries and government bodies. This is expected to save over 900 thousand working hours, that translates into over LE 9 million annually, based on average income, and also saving about LE 60 million on government purchases.

A dedicated 'portal' for governmental services was launched in January 2004, offering: access to information on various governmental services; inquiries about customs, taxes, and traffic violation charges; and applications for replacement of National identification cards, birth certificates, and university application forms; as well as electronic payment of some utility bills (telephone, electricity).[6] The public administrators and providers of governmental services have been further empowered by the adoption of the first of Egypt's 'cyber-laws', the E-Signature Law (2004), and its executive directives (2005)[7] which establish the framework for exchanging electronically signed documents and forms, thus allowing online provision of government services, and enhancing government transparency.

ICT in human development. ICTs can provide universal access to information, knowledge, enhancing citizens' choices, access to education and lifelong learning through distance education, and digital libraries (e-knowledge). Currently, all Egyptian universities and about two thirds of the Egyptian schools have access to the internet. However, the quality of access is generally not adequate, with limited PC penetration per school and limited bandwidth. Limited PC penetration results in less quality access per student, while limited bandwidth reduces the capability of providing practical e-learning and distance education. The GOE recently launched a broadband initiative for schools to avail fast connections and thus enable comprehensive e-learning and distance education applications. Another initiative, the Smart Schools Network pilot project, aims at ensuring that all Egyptian students at preparatory schools are computer literate and have adequate PC penetration rates of one PC per ten students.

In 2005, MCIT launched an e-Content initiative — in partnership with the Ministry of Information, the Publishers Union, and software companies — that aims at supporting the creation and dissemination of digital Arabic content. The Library of Alexandria (Bibliotheca Alexandrina) is participating in an international initiative that aims at digitizing one million books and making them publicly available, thus increasing the pool of knowledge disseminated over the internet.

ICTs can also help improve the quality of healthcare services, through access to online medical resources (tele-medicine and e-health). The Ministry of Health along with MCIT has initiated a telemedicine project that aims at equalizing access to specialized medical expertise, especially for medical diagnosis, through dedicated centers of excellence across Egypt, such as Kasr El Aini Medical Hospital and Ain Shams University. These centers act as gateways to further referrals to international experts worldwide.

6. http://www.egypt.gov.eg/
7. http://www.itida.gov.eg/

In addition, ICTs provide means for social and community development (e-Society), linking communities and networking people in a global information and knowledge society. Pioneering projects, such as the UNDP's Community Access Technology Centers (CATCs)[8] and MCIT's IT clubs,[9] have provided unique gateways linking communities across Egypt, especially in rural areas such as Matrouh and Sinai. Currently, there are 1,200 IT clubs with a plan to expand them to reach all Egyptian villages by 2007 (see later in this chapter).

The digital divide

There continues to exist a 'digital divide' or gap between industrialized and less developed communities due to the vast difference in their capability to efficiently and effectively deploy information and communication technologies.

ICT diffusion and use is a reflection of existing broader socioeconomic inequalities. For example, the distribution of fixed telephone lines and for internet users worldwide, published by the International Telecommunications Union (ITU), reveal that developing countries have a low percentage ICT penetration.

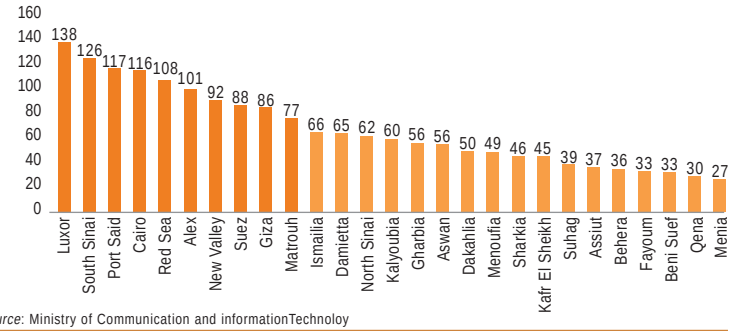
Egypt has just 0.8% of the world's fixed telephone lines, 0.3% of the world's PCs, and 0.4% of the world's internet users. However, the literature,[10, 11] indicates that developing countries are 'catching up.'[12, 13] In Egypt, recent statistics show that since the adoption of the national ICT plan late in 1999, the number of fixed lines has almost doubled, and the number of internet users has increased by 14 times since 1999 to over 4.3 million in May 2005.[14]

The divide in fixed telephone lines

The urban-rural gap. Most telephone subscribers in Egypt are urban dwellers, with only 21% of subscribers found in rural areas. In 2003, MCIT announced plans to increase teledensity in rural areas outside Egypt's major cities and to raise tele-accessibility to 90% by the year 2007. That would require an estimated 7 million additional lines — primarily in rural areas — which require an investment of nearly LE 10 billion. It is anticipated that this target will not be achieved before 2010 using the existing mechanisms, as Telecom Egypt has been adding about 1.2 million new lines each year.

New mechanisms for achieving universal service needs to be explored to facilitate the growth of communications services, primarily the possibility of licensing smaller operators for rolling out infrastructure and serving users in

Figure 7.4: Telephone lines per 100 households, 2004 (in %)



Source: Ministry of Communication and informationTechnoloy

Box 7.5: Egypt's information society initiative

Building on the achievements and experiences from the implementation of the national ICT plan, a comprehensive initiative, namely the Egyptian Information Society Initiative (EISI), was launched by President Mubarak at the World Summit on Information Society (WSIS) 2003 in Geneva.

The EISI is structured around seven major related tracks:

- **e-readiness**: all citizens should have easy and affordable access to the opportunities offered by new technologie;
- **e-learning:** ICT is a complementery tool for higher standards of education, skills and productivity;
- **e-government**: The Information Society Initiative should be able to deliver high quality government services and offer citizens the opportunity to share in the decision making process, and improve efficiency and quality;
- **e-business**: With the creation of new technology-based firms, the use of electronic documents, and the development of e-payment infrastructure, ICT can be a significant catalyst to increase employment, create new jobs and improve the competitiveness of Egyptian enterprises;
- **e-health**: The application of ICT could provide a better quality of life to the citizens and a more efficient work environment for physicians and healthcare workers. It can also provide continuous training for doctors, and offering the tools for building a national health network;
- **e-culture**: ICT is used to document Egyptian cultural identity through the use of tools to preserve manuscripts, archives and index materials, offer worldwide access to cultural and historical materials, and generate and promote interest in Egyptian cultural life and heritage;
- **ICT export initiative**: This initiative is designed to foster the creation of an export-oriented ICT industry. The development of an ICT industry can be a powerful engine for export growth and job creation.

Source: http://www.mcit.gov.eg/Egy_vis_infosoc.asp#summary

8. Cyber Cafes for the Poor.
9. http://www.mcit.gov.eg/
10. Analyses and Policy Recommendations. UN ICT Task Force Series 3. 2003.
11. World Bank InfoDev Annual Symposium, 2003.
12. ITU Telecommunication Development Report 2003.
13. Second Annual Report of the UN ICT Task Force, May 2004.
14. Monthly Report of the MCIT, June 2005.

Table 7.7: Egypt's ICT indicators

Times	Indicator	1999	2005
Telecommunication infras. indicators			
Fixed telephone lines	centrals capacity	6.4 mil	12.2 mil
	fixed tel. lines subscribers	4.9 mil	9.7 mil
	waiting list for fixed tel. lines	1.3 mil	55,000
	centrals in rural areas	775	1,115
	public phone cabinet	13,300	55,000
Mobile telephone lines	mob. tel. subscribers	0.7 mil	9.4 mil
	mob. tel./100 pop.	1.0%	13.8%
	mobile services cos.	2.0	2.0
Internet penetration	internet capacity	20 Mbps	2.7 Gbps
	internet users	0.3 mil	4.3 mil
	monthly internet subscription	LE100 ($29)	cost/local call
PC penetration	PCs	0.9 mil	2.0 mil
	PCs /100 pop.	1.3%	3.5%
Human development indicators	trainees for the basic skills development programs	1,200	108,467
	IT clubs	30	1,119
	trainees for the specialized training programs	500	22,155
ICT business status	ICT cos. operating in Egypt	266	1,571
	employees in ICT sector	10,256	38,705

Source: MCIT monthly report (2005)

Table 7.8: Proposed targets for key ICT indicators

	2000	2005	Target 2015
Tele-density	7.6%	13.8%	40.0%
Cell phones	1.0%	13.4%	45.0%
PC penetration	1.4%	3.5%	15.0%
Internet penetration	0.5%	6.0%	25.0%
Broadband internet (subs.)	na	60,000	1.5 mil
Internet subscription fee	100 LE/mth	0.0	Worldwide best practice
ICT cos.	266	1,516	8,000
ICT professionals (K)	10	37	250
ICT clubs	30	1,200	4,000

Note: Subs= subscriber
Source: Sherif Hashim, Background Paper, EHDR 2005

unserved rural regions. Government subsidies would be needed to bridge the gap between the cost of providing the service and the price levels that would be affordable to dwellers of those areas.

There is a recognized positive relationship between GDP per capita and teledensity

Teledensity in the governorates. Inequality among governorates is shown in Figure 7.4. The average number of lines per 100 households was 68% as of 2004 with 16 governorates below that average. In addition, the first five governorates: South Sinai, Port Said, Cairo, Red Sea and Alexandria as well as Luxor have a household teledensity surpassing 100% — indicating the presence of more than one line for some households — while in other governorates, this indicator fails to reach even 50%.

There is a recognized positive relationship between GDP per capita and teledensity.[15] The relationship for Egypt takes the same functional form as that used in similar research by the World Bank in 2002. According to this model, income explains 65% of the changes in teledensity among different governorates. Egypt's ICT indicators reveal the expansion in telecommunications and internet services after the completion of phase I of the Telecommunications Master Plan (See Table 7.7). The total exchange capacity has shown a steady increase.

In May 2005, Egypt announced the launch of its Broad-Band Initiative, another public-private partnership for collaboration between Telecom Egypt and other licensed operators in deployment of ADSL (Asymmetric Digital Subscriber Line) infrastructure, used to deliver digital data at high speed over existing phone-lines. This will allow customers access to high-speed data services even before switching to fiber optic cable.

In 2003 Egypt joined the Information Technology Agreement of the World Trade Organization and undertook commitments for eliminating custom duties on IT products at large and in specific PCs by 2005. In 2004, and as a part of the customs reform pack, duties on PCs were eliminated.

MCIT has also introduced several initiatives to boost PC and Internet usage throughout the country in collaboration with other governmental institutes. MCIT is working in cooperation with the MOE to connect schools via broadband internet and has recently announced a national e-content initiative in collaboration with the MOI, Publishers Union, and software companies to promote digitization and electronic distribution of Arabic content on data networks.

IT clubs offer a solution to problems of affordability, accessibility, and awareness through partnership between the government and the local communities. As an essential component of the MCIT's national plan to familiarize people with computers the clubs provide citizens with access to PCs at a nominal fee of LE 1 per hour. Typically, an IT club has a network of 20 PCs with printer(s) and Internet access. MCIT provides the equipment and hardware necessary including

15.Juan Navas-Sabater, Andrew Dymond and Niina Juntunen, 'Telecommunications and Information Services for the Poor: Toward a Strategy for Universal Access', (Washington, DC, World Bank, Discussion Paper No. 432, April 2002).

Box 7.6: Case study: the subscription-free internet mode

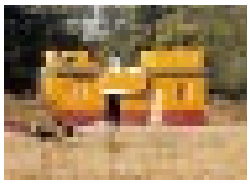
A unique Egyptian experience, the subscription-free internet model was introduced in 2002, led by MCIT, where Telecom Egypt, in cooperation with the majority of Egypt's internet service providers offered subscription-free internet services to internet users via dialup to special-prefix numbers nationwide.

Today, internet users across Egypt are only charged for the price of local phone calls associated with connecting to the net. The revenues from the Subscription-Free Internet calls are shared between Telecom Egypt and the service providers. The model was a major step in increasing the number of Internet users: from one million in January 2002 to almost four million three years later.

Usage patterns, international capacity and investments from the private sector experienced exponential growth since the launching of the project. The initiative has been fundamental in developing some of the service providers from small enterprises into full-fledged telecom operators. The nationwide nature of those companies created a large demand for employment of technical staff from outside the main cities thus creating a market for skilled ICT professionals in various governorates. As regional markets become liberalized, many service providers are establishing operations within the Arab region, building on the experience developed from operating large-scale Internet operations in Egypt.

Source: Sherif Hashem, MCIT

Box 7.7: Households users survey



The Egyptian Ministry of Communications and Information Technology (MCIT) supported by a grant from the World Bank InfoDev Program, commissioned a survey of over 8500 households, sampled uniformly, from among the current household users. The survey was conducted during October 2003,* and it revealed the following:

- **users**: In about 1 million households, the total number of regular users is estimated to be 2.5 million. The average number of regular users within a given household is two users, while 24% of the surveyed households regularly host other (non-resident) Internet users, such as neighbors or extended family members.
- **key applications**. The leading uses of the Internet are for work and for acquiring knowledge (48% of the surveyed households), followed by entertainment and chatting (46% of the surveyed households), and then followed by sports, software downloading and purchases.
- **user demography**. Users in the 18-25 years age group represent the highest percentage of users (42%), followed by the 25-45 years age group (29%). Those below 18 years old accounted for 24% of users, while only 5% were above 45 years. Female users comprised 32% or about one third of the total number of household internet users.
- **new users**. About 68% of the total number of surveyed users started after the subscription-free internet initiative was launched. This indicates the success of this initiative in substantially improving public internet access.

* E-Readiness Assessment: The Case of Egypt: MCIT/InfoDev Report (2004)
Source: Sherif Hashem, MCIT

Box 7.8: The software industry (SWI) in Egypt is competitive

The strengths of the software industry in Egypt include the following:

- the main source of strength in this industry is the availability of well-trained, low-salaried employees. Labor costs, even for quite senior programming staff, are about US$4 per hour, compared to US$85-175 per hour for equivalent labor in the USA;
- most programmers use English as a second language, which provides the industry with a competitive edge in dealing with customers in the USA and Europe;
- the export prospects for the industry are optimistic. About 35% of production is exported to foreign markets and the export potential for the industry is high;
- most of the firms in the SWI have engaged in aggressive investment in the past two years. They have also adopted flexible pricing policies and targeted advertising, and constantly upgrade their production technology, organization and production mix.

The government has taken several steps to support the industry including:

- engaging in large infrastructure projects to support the industry. The 'Smart Village' on the outskirts of Cairo is an example, where it is expected that there will be a large self-contained industry cluster employing a sizeable numbers of programmers;
- acting as a buyer for the products of some software industries and, through procurement programs, which has stimulated demand for small and medium-sized private firms in software development;
- attracting domestic and foreign investment through tax breaks and other incentives to software and information technology (IT) projects;
- establishing a number of higher education institutions in the IT field;
- providing a 'user-friendly' framework of regulations, and not controlling prices.

Source: Sherif Hashem, MCIT

computers, printers, peripherals, Internet access, a network (LAN), and a server at a cost around LE 50K-100K, depending on its size. Several IT clubs offer basic ICT training and even extend their ICT services to small local business.

With centers primarily based in the some of the poorest and most rural areas of Egypt, clubs have been able to provide opportunities for those with the greatest need to develop skills and join the job market. IT clubs also create job opportunities for university graduates who join a training program conducted by MCIT under the name of 'training of trainers.' Graduates become IT club trainers, must live in the same governorate as the club they work in, capitalizing on their familiarity with the needs and interests of the local community. MCIT has recently announced a partnership with the Social Development Fund for creating a micro-credit mechanism to allow entrepreneurs to franchise the model of IT Clubs and thus accelerate the rate of placement of these clubs throughout the country. Currently, there are 1,200 IT clubs with a plan to expand them to reach all Egyptian villages by 2007.

3. A Vision for the Media in Egypt

Following Egypt's 1952 Revolution, the mass media was seen as a tool to promote national unity and economic and social development. Officially, it became part of the effort towards modernization, and as such it represented a government perspective on national development projects. Today, advances in communication technology, from satellites and their transnational broadcasting networks, to mobile telephony and wireless communications have opened up new worlds of knowledge, information and entertainment. The Arab region's media is overwhelmed by a flood of competing, and often world-class, broadcast, print, and electronic content. This sudden availability of information has affected the ability of any government to directly or indirectly influence what the public sees and hears, and to control the sources of news and entertainment for media consumers. The new buzz words have become quality and credibility.

▼ Without freedom of speach popular sovereignty is not tenable

In Egypt today, the prime duty of print and broadcast media is seen as conveying news and providing opinion and perspectives, reinforcing social norms, raising cultural awareness, providing specialized channels for commercial promotion, and finally, entertaining. The mission has taken on a much broader perspective within an increasingly privately owned and liberalized media which competes with state media in a relatively open market of ideas and a competitive and technical global environment. The challenge for the state continues to be to pay more than lip service to the ideals of free speech by reexamining media's purpose, and rethinking its role as an agent of change. There remains a state concern to maintain a balance between censorship and freedom of expression at a delicate transition period in Egypt's development. By this is meant safeguarding against religious, racial or gender discrimination, group defamation, incitement to agitation and terrorism.

Democracy and decentralization

In any nation, the political structure and its subsystems, that is, a relatively independent judiciary, legislature, press, and other subsystems, are more important predictors of the extent of media freedom than is the economic development profile. The success of such freedom is a function of the domestic political will. Without freedom of speech, popular sovereignty is not tenable, hence freedom of expression is the sine qua non of democratic, civil and political rights.

Decentralizing the various components of Egypt's media system, privatizing and restructuring the media industries as well as re-aligning and merging media enterprises to provide the finance, talent and technical base required to achieve a larger market share in a shrinking audience appears to go hand in hand with building a democratic society that is based on plurality, diversity, impartiality and accuracy. Egypt's President Mubarak has signaled his intention to speed up the pace of democratic reform in Egypt, and has made plain his commitment to the review of laws penalizing journalists for various infractions. While this has not yet come into effect, pressure from the Union of Journalists and several independent bodies bodes well for the future.

An independent regulatory framework would promote the growth of a strong, free and diverse sector that serves the public interest, keeps people informed, acts as a watchdog over both government and community, and contributes to both the education and entertainment of the public. The issues of protecting liberties and freedom of speech need to be addressed as well as ensuring privacy and respect for intellectual property rights. At the same time, the law must provide clear and transparent penalties for sedition and defamation based on a precise meaning of what constitutes these, and designate no-go areas that touch upon national security within a a more 'liberal' definition of what these should be.

The tools of freedom

Disengaging much of radio and television broadcasting from state management would provide a platform for a multiplicity of views, encourage debate, and would, as a prerequisite, be responsive to the needs of its audience, providing fertile ground for democracy to take root.

A general direction towards more decentralization, particularly to nurture private local media

that is more responsive to audience interests and needs is already in evidence. For example, the government operates and controls the broadcast institutions through the Egyptian Radio and Television Union, (ERTU), but there have been signs that the state is intending to relax its control and has authorized several private satellite and radio channels.

Decentralization includes devolving the operations of government publishing houses, print and broadcast media and allowing private investment in the press, radio and television, but guarding against undue concentration of media ownership. As a means of promoting diverse content, state media organizations, particularly broadcasters, should be required to carry a minimum percentage of material by local independent producers, provide training and capacity building relevant to a new category of community broadcasters. One component of this report's recommendations is to facilitating the development of a strong community print and broadcasting sector - media outlets that are owned, managed, and controlled by the communities they serve. To achieve this, government could ensure that frequencies are available for community broadcasting, set reasonable licence fees and conditions, and minimum local content quotas.

Such developments would not preclude the continued existence of state-affiliated media channels, whose purpose would be to use media advocacy and social marketing for development purposes. These channels would compete with alternative sources of information and entertainment rather than monopolize ownership and control. The offshoot would be efficient use of resources and higher standards of public media services, as well as a commitment to public discourse gauged by audience and readership figures.

Additional finance to the state media budget could, for example, come from a monthly fee for television broadcasting service added to the electricity bill for the 12 million television households, calculated in accordance with the use of electricity in households. In addition, there could be a tax on usage of satellite services for the millions of satellite households.

Although local, independent and private print media have grown tremendously over the last five years, most print media are still monopolies and function under direct or indirect government supervision, via regulatory gatekeepers. While the government press is the beneficiary of state financial support, much of the private print media and the advertising industry are financially dependent on government-controlled inputs, such as newsprint and access to advertising outlets. State-run printshops, on the other hand, benefit from substantial subsidies - on the cost of paper, for example. Content of most newly emerged private publications focus mainly on amusement, distraction, and sensationalism, and in the opposition press, the mixing of information and views make it hard for the reader to distinguish between news and commentary, and encourages a 'yellow' press that relies on rumor and exaggeration to boost circulation figures. Thus there is a need for reform on two fronts: to level the playing field on state subsidies, and to create - possibly within the press union - a standards body to raise the calibre of reporting.

A major proposal for the Egyptian government is to convert the Egyptian Radio and Television Union (ERTU) into a Public Service Broadcasting organization with universal accessibility. Its main asset would be editorial independence, giving it a high level of national and regional credibility. Regulations would be required against interference, particularly of a political and/or economic nature, and freedom ensured through a board that is representative of the public, accountable to the legislature rather the executive. Funding could be through a licensing process or direct state grants.

The challenge remains

Media is a fundamental partner in achieving development goals, and is seen by many to have the potential to act as a social engineer. Research has shown that attitudes can be modified through exposure to new concepts and ideas. If the national media is to regain its dominant role in the region and remain relevant and able to compete in today's sophisticated markets of ideas, it must re-invent itself as independent, responsive, responsible, and world-class.

▼

The media plays a prominant role in raising awareness and in highlighting experiences and success stories

Table 7.9: Indicators of services exports performance in Egypt

	Value $ mil	Rank*	Growth %	Growth %	RCA**	RCA**
	2001		2002	2003	1995	2003
Transport	2,738	8	4	na	1.57	1.67
Travel	3,800	10	-1	22	0.97	1.50
Communication***	232	8	-5	40	1.30	1.32
Construction	141	5	22	29	0.00	0.97
Computer and IT	22	10	-5	19	0.01	0.06
Financial	70	9	21	-6	0.22	0.15
Royalties and license fees	46	7	-19	221	0.12	0.20
Other bus services****	1,737	11	12	7	1.01	0.79
Personal, cultural and recreational	19	12	186	34	0.03	0.50

Note:
* Rank from among developing countries
** RCA = Revealed Comparative Advantage. When above one, signals competitiveness
*** postal, courier and telecommunications services between residents and non residents
**** includes merchanting and other trade-related services, operational leasing services, and miscellaneous business, professional and technical services
Source: UNCTAD: Handbook of Trade Statistics, 2004

4. Liberalizing Trade in Services and Promoting their Export

Egypt has a huge yet untapped export potential of services. Table 7.9 shows different indicators of performance of services exports in Egypt.

▼ **Special programs could upgrade the capacities of negotiators and government officials on trade issues related to services**

The appearance of Egypt among the list of the most important 20 developing countries exporting services is a positive sign that should be supported. The rate of growth of some service exports such as personal, cultural and recreational services is an advantage that should be supported by further policies. The same applies to other business services, which although not experiencing as impressive growth rates still have untapped potential. Back-office export services have started to expand in several areas including ICT and ticketing.

Calculations of Revealed Comparative Advantage (RCA) for different services in Egypt show that, over the period 1995 to 2003, Egypt maintained its relatively high RCA in transport, as well as in communications and travel. There seems to be great improvement in the case of construction. Some other business services earlier enjoyed a high RCA but lost it starting in 2000.

The importance of enhancing the efficiency of the services sector in Egypt cannot be overemphasized. Several studies have highlighted that inefficient services in Egypt have resulted in high transactions costs thus raising the costs of doing business. Inefficient service markets have a negative impact on resource allocation and investment incentives. It was found that the structure of effective protection is very different when the cost of inefficient services is accounted for and that the efforts of the Egyptian government to promote investment in certain sectors are hindered by the inefficiency of services, in addition to bureaucracy and red tape.

Why develop trade in services for Egypt?

Regarding employment, there are large differences between the impact of trade in services and that of trade in goods.

First, whereas in the case of liberalizing trade of goods there are short-term costs associated with jobs lost and domestic firms retreating from the market due to their inability to compete with liberalized imports, it is not necessarily the case in the services sector. The reason is that the most common mode of provision of services is the physical establishment, through FDI, of a foreign producer in the domestic comsumer market.

Newly established foreign-owned firms and the resulting increase in domestic job opportunities they provide will offset to a large extent any labor layoffs by domestic incumbents, thus decreasing the extent of opposition against opening up trade in services in the affected sectors.

Second, rules governing liberalization of trade in services differ from rules governing liberalization in goods. While the latter is mainly controlled on the borders through tariffs, the nature of the former and its special features of intangibility and non-storability makes cross-border trade in services limited; tariffs are an idle method to monitor and control the entrance of services to the national domestic market.

Liberalization and privatization in developing countries since the 1990s encouraged the provision and liberalization of services, mainly through FDI, which participated in service activities that had been previously prohibited.

Third, GOE's commitment to adopt an export-oriented strategy creates pressures as well as motivations to liberalize the services sectors. On the pressure side, policies that restrict the operation of foreign providers of services may raise the income of local sellers but act as a tax on local buyers and importers for whom services are inputs to the production and export of various other goods and services. In the longer term there are also likely to be dynamic growth opportunities from the transfer of skills, frequently as a consequence of the operations of multinational service providers. On the motivation side, liberalization and deregulation of service markets began to emerge as a high priority policy reform issue in many developing countries where manufacturing industries need to have access to low-cost, high-quality service inputs in order to be competitive on domestic and world markets.

The upgrading of the regulatory system that governs the services sector in Egypt is important. Studies on specific service sectors in other countries show that privatization or liberalization accompanied by inadequate regulation and contestability of markets can lead to negative impacts on welfare as low productivity and high private sector returns may result in foregoing the main purpose of domestic reforms that aim to provide efficient services. The continued absence of a competition law in Egypt is highly relevant here because of the monopoly or oligopoly nature of the market structure of the majority of the service sectors.

Moreover, the Egyptian-European Partnership Agreement and other regional regional trade agreements (RTAs) imply the possibility of liberalizing trade in services in the future. Since strict regulations can act as non-tariff barriers, reaching some kind of mutual recognition agreement (on minimum standards for services and service providers) is essential. Given the wide gap between Egyptian domestic regulations and their counterparts in the EU (e.g., labor standards and child labor), the Egyptian government should fast upgrade domestic regulations more rapidly. Such as upgrading will facilitate future negotiations on mutual recognition agreements and harmonization of standards.

Policies towards services competitiveness

The enhancements of skills in this sector — which range from call centers, to ticketing to tour guiding, to translation activities — can help in alleviating unemployment among educated youth. A large number of such jobs can be performed without the need for a fixed place of work, which in the case of Egypt is advantage.

▼ **Privatization or liberalization accompanied by inadequate regulation can lead to negative impacts on welfare**

Best practice policies towards achieving services competitiveness include:

- a High Authority for Services should be created to study and oversee the role of services in the economy and act as the main coordinator between different ministries;
- reviewing all the regulatory regimes governing trade in services and updating them to be in line with existing GATS or potential commitments;
- establishing special programs could upgrade the capacities of negotiators and government officials on issues related to services. This could take place under the auspices of MOFTI;
- starting sectoral programs on better collection of data on services following the international norms of the WTO and the IMF;
- developing tailored programs for training on business services, which have internationally been acting as the fastest growing services sector over the last decade.

5. The Housing and Construction Sector

Achieving the balance between housing supply and demand has been a difficult equation that all Egyptian governments have tried to solve over the last four decades. The past 25 years witnessed a substantial increase in the total number of units built — with the public sector contributing 1.24 million units (36%), and the private sector 2.15 million units (64%). And yet the formal housing market has not met the housing needs of the urban poor, and informal settlements continue to develop with conditions that violate regulations and construction codes.

A recent study by the Ministry of Planning (MOP) states the need for 5.3 million housing units up until 2017 to accommodate the expected increase

Table 7.10: Available/required housing units to 2017

Housing units (No. in mil)	Urban	Rural	Total
Existing housing units till 1986	5.9	5.5	11.4
Added units between 1986 and 1997	1.6	1.1	2.7
Total	7.5	6.6	14.1
Vacant units (1996 census)	1.0	0.8	1.8
Total occupied housing units	6.5	5.8	12.3
Required housing units till 2017	2.8	2.5	5.3

Source: MOP (2001), Paper on Housing and Construction Sector in Egypt

Table 7.11: Types/levels of required housing to 2017

Types of Units	No. of Units				Provider	
	Urban	Rural	Total	%	Public	Private
Low income	1.9	1.8	3.7	70.0	0.1	3.6
Middle income	0.7	0.6	1.3	25.0	0.1	1.2
Upper income	0.2	0.1	0.3	5.0	0.0	0.3
Total	2.8	2.5	5.3	100.0	0.2	5.1

Source: MOP (2001) Ibid

The housing, building and construction sector could become an engine for economic growth

in population. The private sector is seen as the main supplier for housing units for all different social categories with the public sector providing less than 4% of the total required. This implies a dramatic change in the current housing policy and practice and represents a major shift in the role of government — to enabling the private sector (whether local communities or investors) to step into the market more vigorously. This will require a number of regulatory, institutional and financial revisions and reforms.

The MOP study has proposed that the expected increase in population of about 23 million by 2020 can be accommodated by developing new reclamation areas (to absorb 2 million people), new cities and urban communities (4.5 million); increasing the efficiency of land use in existing cities and villages (2.5 million), and by developing new villages and small urban settlements in the desert hinterland (*zaheer sahrawy*, 11.5 million), especially in Upper Egypt as an alternative to urban migration.

The study estimated that the remaining 10-11 million people could be housed within existing cities and villages through rational planning, over no more than 100 thousand feddans, which already exist in the form of agricultural pockets and wastelands.

A window of opportunity

While the challenge is enormous, it also presents the opportunity to turn the housing, building and construction sector into an engine for economic growth. The sector has always been highly labor-intensive, with a greater capacity to utilize an unskilled or semi-skilled workforce than other sectors, employing in 2002 more than 1.53 million with an annual growth rate over 5%. Several studies indicate the sector's ability to absorb labor incrementally (increasing to an estimated 7 % of total labor force in 1996-1997), and the sector is expected to absorb about 1.83 million in 2006-2007 under a rational plan to expand Egypt's resources to support future population growth and housing demand.[16]

A new housing map for Egypt would therefore be expected to accommodate not only the expected population increase within the coming decade but to indicate that the housing sector — by responding to the basic requirements for this — can become an engine for employment and growth (also see Chapter Eight).

Drawing the new housing map

Improving new cities and urban communities

The target here is to accommodate 4.5 million inhabitants. The Egyptian new cities program covers 20 new communities and a total area of 600 thousand feddans. The total investment spent over the past 25 years has been over LE 22 billion from government, mostly on infrastructure, against more than LE 40 billion of direct private investment (Ministry of Housing, 2004).

Within these settlements, 2,935 factories have been established with a total capital investment of LE 23 billion; annual production worth LE 29 billion and the creation of more than 285 thousand jobs. A total of 345 thousand housing units have been constructed by the government, in addition to 290 thousand units by private developers, which, added together, can accommodate more than 3 million inhabitants. Overall population in the new cities has reached 1.5 million, or about 50% of the targeted population for 2005.

16. Mostafa Madbouly (2005), ILO study, 'Construction Action Program in Egypt', ILO, Cairo.

Broadly, new cities have faced particular problems:

1. the time needed to reach targeted population size. Older generation cities were to accommodate 500 thousand inhabitants each within 25 years, a goal that has not been met.
2. the planning focus on construction and its effect of attracting mainly speculators.
3. the New Urban Community Authority (NUCA) acts as real estate developer, selling land at the highest price to generate financial resources for itself and the state.
4. insufficient coordination between NUCA and related ministries or authorities on developing schools, health care and social and recreational facilities.[17]

The GOE has adopted a number of different approaches to provide an incentive to attract people to the new cities:

- a 2003 presidential decree has transformed NUCA into a holding company, turning new cities to secondary holding companies affiliated to it — to improve management, enable more private participation in decision making and business creation. Given the complications in evaluating and assessing settlement assets and share of overall debt of NUCA, the initiative remains at its first stages;
- the adoption of non-traditional mechanisms for low and middle income housing whereby land plots between 150 to 300 m^2 are offered for families to build their own housing from several free architectural designs. Payment on the land is over four years and is subject to specific rules for development;
- land served with infrastructure is offered free to developers conditional on their building low/middle income housing projects. The GOE recovers land cost through the acquisition of a number of housing units from private developers.

Although these approaches are innovative, with minimum involvement of government, the number of housing units offered is not sufficient to meet growing demand, especially from those low income households that are in most need of decent housing. This report proposes several additional measures to ensure the targeted populations for the new cities by 2020:

- a wide land provision scheme targeting the urban poor by offering small land plots accompanied by housing development soft loans with a reasonable grace period to encourage low-income settlers. The nominated subsidy for constructing low income public housing can be transferred into this scheme and reach more beneficiaries as well as lower the overall cost, since bureaucratic overheads and management costs will not be included in the unit's price;
- speeding up the process of transferring NUCA with its affiliated cities into functional holding companies for better management, active private sector participation and GOE monitoring to ensure equity in housing development;
- creating the appropriate network of transportation services to connect new and old agglomerations;
- a phased move of government with its affiliated authorities and organizations to new cities, using self finance (via sale of old premises in prime inner city locations), and stimulating staff mobility with affordable housing units, plots for housing, and soft loans for construction.

The government has offered a number of incentives to attract people to the new cities

Better urban land utilization

It is estimated that 2.5 million inhabitants could be accommodated through better urban planning and land use (see Chapter Eight).

Informal urban settlements. A 'National Upgrading Policy of Informal Urban Settlements' has been in effect since 1993, providing informal settlements on the peripheries of cities with infrastructure, roads and, in some cases, basic services. More than LE 2.8 billion has been spent on these massive projects but the overall impact has been less than expected with continued rural migration, unemployment, and poverty which have outpaced government resources.

Inner city slums. These are evident in all of Egypt's cities, often in central or prime locations, and are a manifestation of well meaning but retrogressive laws and regulations such as rent control, and represent low occupancy rate, structural dilapidation, decaying infrastructure and patchy urban services despite the high land value.

17. National Specialized Council (2005), 'Report on Urban Development in Egypt, Unpublished report, Cairo.

A reform approach could be built on the concept of public/private partnership for:

1. land tenure regularization and upgrading for informal peripheral settlement.
2. slum renewal projects under a national program based on cost recovery.

Housing units built by the government seem not to match the financial means of their target populations

Elements required to fulfill these goals

Upgrading through land tenure regularization and improved urban services. More than 90% of real estate and housing units are not registered mainly because of their informality, complicated and costly registration procedures and lack of incentive to register. The notion of registered land title to be used as collateral has not been widely adopted or practiced in Egypt. If land or housing title were available for a nominal sum (possibly with the condition of completing construction and facades) and coupled with simplified registration procedures — legal ownership would contribute towards improved physical and structural appearance as well as allow the state to levy property taxes as income for local government. Mechanisms for soft loans dedicated to housing improvement via the Social Fund for Development and specialized banks would provide an incentive.

Currently, the Egyptian government has stated its intention to revise its upgrading policies to be based on economic recovery and called for the implementation of a demonstration redevelopment project

In-situ relocation or redevelopment of inner city slums. All slum areas within prime locations can be subjected to relocation and redevelopment schemes on an economic basis. Planning would include alternative housing for current residents whether renters or owners, reserved area for services and urban facilities, as well as areas allocated for investment development in the form of tourism, commercial, business and residential activities to cross subsidize housing development for original residents.

The institutional mechanism would be the creation of public/private shareholding companies for each area, consisting of the original owners in proportion to the value of their property, private investors, the governorate and the Ministry of Housing represented in NUCA.

Another NUCA option is to offer small parcels of land in new communities rather than housing units, to encourage self-help housing and micro-enterprises. Capital can be raised via stocks or shares on a market basis.

The shareholding company would prepare the development plan, evaluate the property value, provide infrastructure, relocate original residents in-situ or via cash compensation, and manage and finance the whole development process. Being a partner, the governorate would acquire all permits, coordinate among different government bodies and ensure the plan meets with governorate development targets.

Compensation to the original landowners could be direct payment for their original land based on current price, shares to the company at a higher evaluation of current land value to encourage their participation in development, or exchange with other land in new communities. Residents' compensation could include direct payment from the company, housing units or small parcels of land in new communities, or building housing in a part of the same areas after re-planning.

Raising finances for housing

To facilitate access to affordable housing, government mortgage lenders are one option; others include partial equity grants or targeted interest rate subsidies on commercial housing loans. Home ownership for people living in sub-standard housing can take the form of grants based on the market value of the existing housing properity.

Community savings for housing can be used successfully, with individual savings pooled into a legal trust, thereby providing a mechanism to attract additional financing, protect against default, and receive subsidies. Funds can be used for locally purchased building materials, labor, or down-payments for land purchases. Stronger recognition by the formal banking sector of slum communities as potential customers could open new avenues for slum dwellers to access credit.

Extending inhabited areas

Developing in desert hinterland (*zaheer sahrawi*) would provide housing for an estimated 5-6 million inhabitants. Villages or *markaz* with desert hinterland are those that have direct boundaries with or at a distance of less than three kilometers from desert land. The 1996 Census identifies 16 governorates with desert hinterland within which are 93 *markaz*, with 19 million inhabitants. This represents over 48% of total rural population, in 2,070 villages with desert hinterland, 753 villages of which have direct frontage and accommodate over six million inhabitants.

All *markaz* in the governorates of Upper Egypt have desert hinterland, with 1,430 villages, out of which 484 have direct frontage with the desert. Upper Egypt can thus play a major role in urban and rural expansion in the coming decades.

Studies at the national level show that nearly all of the 2,070 villages within the desert hinterland are a main source of internal rural-urban migration. The villages are characterized by low income and limited economic opportunities. Creating incentives in the form of new housing and roads near their origins together with potential job opportunities through land reclamation, small enterprises or other economic activities would constitute a crucial strategy to retain populations and discourage migration.

The GOE has recently recognized the importance of the desert hinterlands development alternative. Three governorates; Menia, Suhag and Qena have adopted the initiative, whose advantages include lower costs as they rely on existing infrastructure from nearby settlements. However, there is a need for a practical mechanism for planning, and implanting new villages.

Public/private partnership would be the best alternative for financing and managing settlements through a special local management unit in each *markaz* consisting of representatives from ministries of local government, housing and investment to define the suitable land prices set as minimum for infrastructure and some government facilities at the beginning. Finance should also depend on the concept of cost recovery.

Table 7.12: Hinterland villages and capacity for population increase

Region	Governorates with desert hinterland	Pop. of villages with hinterland	Expect. Pop.	Pop. Increase	Pop. aged 16-32 yrs	Expect. Pop/new villages [3]
		1996	2020[1]	1996- 2020	2020[2]	
East Delta	Kalyoubia	215	417	202	101	71
	Sharkia	985	1,700	715	340	238
	Ismailia	320	638	309	148	104
West Delta	Menoufia	77	129	53	26	18
	Behera	1,256	2,068	812	403	282
Middle Delta	Kafr El-Sheikh	768	1,294	527	253	178
	Damietta	474	780	306	152	106
	Dakahlia	356	559	203	98	69
GCR	Giza	2,055	3,895	1,840	890	623
North Upper Egypt	Beni Suef	1,223	2,226	1,024	415	291
	Fayoum	1,543	2,857	1,314	587	411
	Menia	2,667	4,603	1,936	793	555
Assiut	Assiut	1,955	3,454	149	639	447
South Upper Egypt	Suhag	2,415	4,368	1,953	840	588
	Qena	2,045	2,597	552	231	162
	Aswan	559	921	362	174	122
Rural Egypt (mil)		18	19	33	12	6

Note: 1. Average annual increase of population is 2.2%
2. Calculated based on the percentage of those age categries in expected population in 2020
3. Estimating that 70% of population between 16-32 years would move to desert hinterland

Source: Faculty of Regional and Urban Planning (2004), Cairo University, A study on the Hinterland of Egypt

Extending village housing by the use of existing pockets and wasteland

Planned development using wasteland in existing villages could accommodate a population of 10-12 million, with minimum encroachment on agricultural land. In 2004, the GOE assigned the task of preparing a national integrated program for improving Egyptian villages to the General Organization for Physical Planning (GOPP). The ensuing program prepares for the development of 4,623 villages within three years.

▼ **The 1996 Census identified sixteen governorates with desert hinterland**

The plan uses strategic planning to propose integrated development projects for each village through direct community participation and private sector involvement in the finance and implementation process together with the participation of local government.

The program is considered a substantial step towards decentralization and empowering local communities in decision-making and management. But the first priority will be to ensure political commitment by pooling together the current scattered efforts and programs taking place in villages — whether from government or donors-funded projects — and to implement the projects that come out of the village strategic plans.

Box 7.9: Managing the creation of settlements in the *zaheer sahrawi*

To create settlements in the desert hinterland:

- each *markaz* would start with one or two new villages as a pilot project;
- within each project, a special shareholding company would be established from *markaz* or governorate (with their nominal share represented in land allocated for the project), and special developers whether from local communities or private investors. The company would set the procedures for applying for land plots for housing and economic activities;
- land allocation would start with the new economic activities, with a development time limit of a maximum three years and coordination with the Ministry of Investment;
- housing land allocation, building permits and housing finance facilities would be managed by the Company to consolidate new settlements within 10 years;
- another option is through partnership with one investment bank that would manage the whole development process similar to a holding company.

Other proposals include effective transport networks, allocation of the local and regional services planned for existing villages in the Five Year National Plan, special zones based on the investment plan of each governorate for land reclamation, small enterprises and agro-industries, tourism and other appropriate activities such as mining or crafts. Incentives could include soft loans through a variety of channels, and marketing mechanism to promote products.

Source: Mustafa Madbouli, Background Paper, EHDR 2005

Box 7.10: Land readjustment and better cost recovery mechanisms

Land readjustment exists in many countries including Germany, Japan, Korea and India. It is a technique whereby a group of neighboring landowners in an urban-fringe area are combined in a partnership for the unified planning, servicing and subdivision of their land, with the project costs and benefits being shared between the landowners with government. The characteristics are:

- development is based on a unified planning of the area;
- government can access land for housing;
- government recaptures any cost by charging for usage transfer from agricultural into urban use;
- infrastructure and services are financed by the sale of some of the plots, often for commercial and investment activities;
- the original landowners are provided plots within the reshaped area, which although smaller in size, now have access to infrastructure and services.

In Japan, about 30% of the urban land supply has been developed by land readjustment, and in the city of Nagoya, 77% of all habitable land has been developed by this method. In the Republic of Korea, 342 land readjustment projects have been able to convert 347 square kilometers into urban land for planned development.

In Egypt, the GOPP has carried out several workshops and meetings with landowners in the village of Sharabas Damietta governorate, to explore this approach. Initial reactions were positive. Landowners were ready to give up a portion of their land, sometimes up to 50 percent, if allocated required services and infrastructure.

Source: United Nations (1995), 'Municipal Land Management in Asia: A Comparative Study'

A key element of the housing and construction sector is its informality

The main obstacle for the program is to set clear criteria and conditions for selecting land to be transferred into urban use from the current existing *bour* land or pockets within each village, given the sometimes contradictory interests of landowners who would benefit from such a transfer.

The selection mechanism should be built on maximum transparency and would require negotiating with landowners on compensation, whether direct payment for the transfer of land use or allowing the retention of a portion of their land to benefit from the new urban boundaries and uses. It should provide resources for local government to finance housing, infrastructure and urban services within villages.

Informal labor and enterprises in the housing sector

A key element of the housing and construction sector is its informality, both that of enterprises and that of individual workers. The sector is characterized by its need for casual or temporary labor and jobs are seasonal with extended waits for other employment opportunities. In 1993, CAPMAS figures showed that casual labor constituted about 60% of the housing and construction labor force, and was not covered by any kind of legal registration or by social security.

A second factor that encourages a reliance on informality in the construction sector is tax policies. Contractors are obligated to pay two types of taxes:

1. the unified tax, equivalent to income tax but applied to contractors' profit. The tax's high rate at more than 40% for a profit margin over LE 16 thousand — and which represents the lowest income for an individual contractor to support his personal expenses — discourages contractors to register either themselves or labor;
2. the sales tax, which is currently at 15%, increases contractors' costs.

Are subsidies necessary?

The formal provision of public housing by the GOE has since the 1960s, been focusing on building low income housing units with heavy subsidies. Units were first for rental and then sold to tenants on a long-term basis.

In the 1990s, a radical change took place in the provision of public housing with the introduction of the national Mubarak Youth Housing and Future Housing programs. Both set higher planning and architectural standards to provide a selection of diverse housing units to meet the needs of different households. Despite these innovative initiatives, the GOE continued to heavily subsidize public housing units. It covered 40% of the cost price, with the remaining amount starting with a small down-payment — in addition to a soft loan — to be repaid over 40 years at a low interest rate. The result was the number of units provided since 1997 (80 thousand units) fell short of the demand of 350 thousand units annually.

Recently, the radical increase in price of building materials, has forced the government to adjust the design of these housing units, by reducing their size to keep prices within the range of low income households. Currently, it is estimated that the average cost of the new units should be calculated on the basis of LE 800/m^2, which will then be subjected to the subsidy.

The cost of government-built housing units is higher by an estimated 30% at least than the cost of the same unit if built by the private sector or by the individual owner. Administrative overheads and cost of bureaucratic procedures are said to be the reason for this large difference.

Table 7.13: Rent values and down-payment for different units

Total area of unit sq.m.	Up-front down-payment LE	Monthly rent LE
50	3,000 - 5,000	75
65	7,000-9,000	75-175
75	10,000	150-200
90	10,000 - 12,000	150-250
120	10,000 - 15,000	More than 250

Source: Madbouly and Lashin, (2003), Housing and Development in Informal Settlements in Cairo

The informal housing market

Housing units built by the government seem not to match the financial means of their target populations. On the other hand, affordable housing is being effectively accomplished within the informal housing market.

▼ More than 90% of real estate and housing units are estimated not to be formally registered

A survey in 2003 covered two informal areas, Boulaq El-Dakrour in Giza and Matariah in Cairo, to explore the mechanisms of informal housing outside the law and the means used to manipulate regulations and legal enforcement. It showed that construction is carried out through local contractors from the area or district because of their experience in dealing with the district authority, finalizing the procedures and their contacts with the local construction labor force. (Madbouly and Lashin, 2003).

Usually, the contractor is responsible for the concrete structure of the building, while the 'finishing' work is the landowner's responsibility. Sometimes, payment is based on the price per concrete column. Building materials are provided by the landowner from locations near the neighborhood. Any bribes required are paid by landowner directly or by contractor and then collected from landowner. The contracting fee is paid for in cash, and the practice is to pay by installments, such that 30-40% of the total value is paid up front and the remaining amount is paid according to an installment schedule on which the two parties agree.

The majority of individuals relied on loans from relatives, own savings, or social mechanisms for acquiring the required down payment for construction. However, they usually had 'connections' and the financial means to bribe or manip-

ulate the district authorities of the local council. On average the unit areas vary from 50 to 120 m^2, but in exceptional cases rose to 200 m^2. Minimum and maximum heights were 2 to 8 floors respectively. The construction period is between one to two years to be able to rapidly occupy the units and create a de-facto situation on the ground. Where construction took more than 2 years, the reasons were due to obstacles from the authorities or liquidity problems. The cost per m^2 of informal housing had risen from LE 300 in 1997 to LE 450 in 2003, an increase of 50% in six years. Empty units are rented in line with the Rent Law of 1996, but rentals are outside the affordable range of the poorer populations. ■

Annex 7.1: vision estimate for low-income housing demand to 2017

Based on demand for housing of a total of 5.3 million units of which 3.7 million units would be for low income households, the main obstacle is to reach this target by 2017 within the limited financial resources allocated for this purpose. The GOE faces several challenges — assuming that housing for middle and high income groups would be implemented entirely through private sector. The question is how to ensure the provision of this huge number of units on an affordable basis for poor households, and how to develop efficient financial mechanisms based on cost recovery, revolving funds and public/private partnerships.

EHDR 2005 has estimated below the required investment for the 3.7 million units needing government intervention - whether through direct provision, supportive legislation or long-term credit (mortgage)- with the intention of enabling poor households to develop their units themselves, within the $70m^2$ area provision set by different laws and regulations for a low income housing unit (see Table 7.11).

Rural areas

Table 7.11 indicates a need to build 1.8 million units in rural areas, whether in the new hinterland villages or within existing village pockets and wasteland or *bour*.

Housing units on desert hinterlands: land here is owned by the state. Cost of housing units would be mainly for infrastructure and construction. Based on the current cost of providing infrastructure in villages, the minimum cost per square meter covering roads, water supply, sewage and electricity would be LE 60. In addition, the minimum cost for construction would be LE 21 thousand. Therefore, an average land plot of $300m^2$ on which a housing unit of $70m^2$ would initially be built (leaving room for further horizontal or vertical expansion) would cost LE 39 thousand.

Housing units in existing villages: planned development would take place on land that is privately owned, according to the proposed mechanism mentioned earlier in this report. This entails transferring land from agricultural to urban use. A portion of the land is used by the state for housing at a nominal price for land that would cover the cost of infrastructure. Consequently, the price of the housing unit would be similar to those in desert hinterland of almost LE 40 thousand per unit, on average.

Based on this rough estimate, the total cost for housing units to be built in rural area would be equal to 1.8 million units x 40,000 = LE 72 billion.

Urban areas

Urban communities: Whether in new cities or existing urban communities, the cost of housing depends on several factors such as proximity from current infrastructure and basic utilities, site selection, topography and soil types and finishing standards for the unit itself. Several public housing schemes are currently taking place, entirely financed by the GoE through the Ministry of Housing or the governorates. In low-income housing programs implemented recently in various governorates, the cost of the housing unit ($70m^2$) has ranged from LE 40 thousand to LE 45 thousand apart from the cost of infrastructure and land. Usually, the land is owned by the governorate itself while infrastructure is provided at the minimum cost of LE 60 per square meter, making use of the existing utilities. The total cost of a single unit ranges from LE 45 thousand to LE 50 thousand.

Subsidized schemes: Within new cities, the Ministry of Housing has developed several schemes such as the Mubarak Youth Housing and Future Housing. These schemes are heavily subsidized by the government. The cost of a housing unit of 63 m^2 was LE 29 thousand in 1996, but given the substantial rise in cost of construction materials, the average cost of square meter including infrastructure now exceeds LE 700. Based on this figure, the average cost of a single housing unit would be LE 50 thousand to 60 thousand depending on location and cost of infrastructure. Based on this figure, the average cost of a housing unit in urban areas would be LE 50 thousand to LE 55 thousand. Assuming the need for a total of 1.9 million low-income housing units in urban areas till 2017, the total cost of these units would be LE 100 billion

Informal settlements upgrading and relocation schemes. Mansheit Nasser the largest informal settlement in Egypt built on state-owned desert land, hosts about half a million residents. This unplanned area has suffered from lack of infra-

structure, urban services, a hard topography and narrow streets. Subjected recently to a government relocation program, the Ministry of Housing, together with the Governorate of Cairo have divided the area into several phases for an *in-situ* relocation scheme to improve living conditions and provide urban services together with available land for future investment by the private sector.

So far, the government has managed to construct a total of 4350 units required to relocate households within the first two phases. Out of this number, 2300 units have been built through direct government finance. They range from 53-63m^2 at an average cost of LE 55 thousand, of which the government offers LE 39 thousand as a grant and the remaining amount of LE16 thousand is paid through a down-payment of LE one thousand and a cooperative loan of LE 15 thousand, to be repaid over a 40-year period. The remaining 2050 units were built through a grant from the Abu Dhabi Fund. Average size of units ranges from 70 to 73m^2. Given the hard topography of the area, unit cost is LE 70 thousand.

Based on this and given the total number of units in informal areas or slums (about three million units), approximately 10% would need demolition and redevelopment whether because of poor structural condition or to widen streets and install infrastructure. Redeveloping about 300 thousand units could be partially financed through a public/private partnership especially within slum areas in prime locations within cities. Total cost, which is LE 16.5 billion, could be partially financed by the private sector, if given the sufficient incentives to co-finance. This would leave the balance to be covered through direct governmental finance.

Sustainability of low-income housing provision in the formal market. The current financial mechanisms provided by the government to sponsor its housing schemes in new cities or in relocation alternatives for slums is mainly in form of bearing 40% of the unit's cost as a government grant, with the remaining 60% divided between a down-payment (from LE 1000 to LE 3000) and a subsidy by the government through a cooperative loan of a total amount of LE 15,000, repaid over 40 years at an interest rate of 5% and average monthly installments of LE 73.

Although such a scheme may present an affordable option for the beneficiaries, it places a huge burden on the governmental budget and is not sustainable. The outcome has been a massive decline in the number of housing units built under this system in recent years, as mentioned earlier in this report. Alternatives have emerged in the informal housing market down payments of 10% to 20% of total cost and average monthly installments of LE 100 to 150, depending on size. The GoE needs to explore new financial options, with a balance between full cost recovery and affordability. One proposal is to require a down payment of 10 to 15% of total unit cost while the remaining amount could be sponsored through a combination of cooperative and special loans, provided by mortgage/banking institutions, or Public/Private Partnerships. Such loans can charge a lower interest rate than the actual free market rate over a longer period of time (40 years) with a maximum monthly installment of LE 150. Based on this proposal, the GOE would be able to recapture the initial fund for construction (representing 50% of the total required investment — that is, 50% of LE 182 billion, which is LE 91 billion) assuming that 10% of the cost would be directly paid by the beneficiary as down payment and the remaining amount through the other financial entity.

Annex 7.2: extending the telephone service to all

A study by the FCC,[18] questions the value of cross-subsidizing local calls from international calls to raise demand, saying that '*Often affordability of telephone service hinges on installation charges rather than recurring monthly fees. A targeted subsidy to help defer installation charges may go a long way toward increasing telephone penetration*.' The installation price (connection fees, phone set and the associated taxes and duties), is currently LE 975 in Egypt. The question is, to what level does this price need to be reduced to achieve a targeted teledensity?

The fixed installation price represents a certain proportion of income. It is not the absolute amount of the price that affects demand, but rather the weight of this amount in each individual's income. Suppose a targeted teledensity level of 40% is required, this level has been reached at a certain income level in some areas of Egypt. From the relationship between income and teledensity, that level of income can be precisely determined.

Next, the installation price of LE 975 is divided by this level of income to know the weight of price to income at which people will afford to get access to a fixed line. Applying this same weight to lower incomes, the new lower prices that will drive demand up to that requested teledensity can be determined.

A new proposal to speed up growth

While the government objective of achieving 90% tele-accessibility could be achieved by raising the teledensity to 20% by 2010, reflecting an average of 4.5 inhabitants per household, a more aggressive target of 40% is proposed for 2015. The choice of the 40% target level is backed by the results obtained by Roller and Waverman[19] which found that investment in telecommunications infrastructure significantly affects economic growth of a country once a critical mass of telecommunication infrastructure is present in that country. Interestingly, the critical mass needed to influence economic growth, according to Roller and Waverman,[20] is present when telephone penetration reaches 40 main telephone lines per 100 households.

18. Kiran Duwadi, 'Telecommunications Investment, Economic Growth, and Universal Service in a Global Economy' International Bureau, FCC, April 9, 2003
19. Ibid (2003).
20. Lars-Hendrik Roller and Leonard Waverman, 'Telecommunications Infrastructure and Economic Development: A Simultaneous Approach', American Economic Review, September 2001, pp 909-923.

It is projected that such a national program for installing telecommunications infrastructure in the underdeveloped areas would lead to a significant improvement in the local economies. Deployment of infrastructure would create a considerable array of job opportunities for the local workforce: opportunities for the skilled labor force mainly in the civil work, as well as opportunities for the more skilled in the operations and maintenance of such networks. The estimated number of job opportunities created directly could reach almost 100 thousand jobs. This could in turn generate a multiplier of 250 thousand indirect jobs as a result of the improvement in income levels and the quality of life of the people to be employed in the national project.

The project could be self-sustainable after an initial period of 3-5 years and an initial investment of almost LE 3 billion to be put into some form of a revolving fund to provide interest-free loans to low-income families to pay for a connection to the communications network. Loans would be made available to interested families so as to bridge the deficit between the cost of installing a phone line and the affordable sums paid by the family to have a connection (normally 7-10% of the annual income of the family). The loan could be repaid on installments that need to be determined so as not to exceed 2-3% of the monthly income of the family.

It is also anticipated that such improvement in the telecommunications infrastructure if coupled with similar bold initiatives to manufacture and provide low cost access devices will be a major enabler for the promotion of government programs aiming at improving the quality of education, especially to girls in rural areas, by use of electronic means, as pupils could reach and interact with online content from their own homes. This would require intensive work plans and comparably large investments to digitize the content and change its structure to be compatible with online interactivity requirements. It would also require rigorous training of pupils to deal with the new technology and teachers to be able to guide and facilitate the online learning process to their pupils. However, some of this training could be delivered in partnerships between the local communities and the government similar to the case of the IT clubs.

Expansion of a massive communications infrastructure would also contribute to the productivity of the workforce if coupled with the promotion of continuous education aiming towards the upgrading of skills and capabilities of men and women already in the workforce during evenings or in their spare time. Such programs could target primarily the ICT workforce by upgrading their language skills or technical knowledge through certification programs. Then it could be extended to include other technology-dependent professions such as engineering, business administration and auditing.

Given the emphasis of this report on serving the priority needs of the poor ahead of other segments of the population, the bill for the proposed programs has not been incorporated in the body of the proposed ten-year vision's budget.

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CHAPTER EIGHT

Addressing the Population/Land Equation

The preceding chapters described the EHDR 2005 vision for economic growth and social development for the coming decade. It is essential to ensure the sustainability of this development by using Egypt's natural carrying capacities more efficiently — as well as by ensuring the capability of the various national agencies to cope efficiently with runaway urbanization on scarce fertile land, deficient services delivery and growing ecological pressures. This chapter and the next both present a general review of the current status of key sectors implicated in sound human and spatial development and propose responses needed to expand Egypt's use of national resources and conserve these against irrational use.

1. The Urban/Rural Imbalance

Egypt's relative status on the international development scale has declined since the beginning of the 20th century to date. The major reason is attributed to the decrease in the available resource utilization rate associated with rapid population growth, leading to the excessive growth in the size of cities and villages, mostly at the expense of agricultural land, and an exponential increase in building and population densities — ranking Egypt highest worldwide.

Thus, there is an urgent need to extend out of the existing small, inhabited agricultural area (about 5.5% of Egypt's total area) to the vast lands in the Western and Eastern deserts, the Red Sea and Mediterranean coasts and the Sinai Peninsula. This transformation is inevitable if Egypt wants to achieve sustainable development, improvements in living standards and the preservation of the remaining fertile land. The current urban imbalance in Egypt is due to several factors, notably:

▼ Population and urban growth have taken place without the conditions for productive and migratory behavior to exist in harmony with economic and industrial development

Population growth. Egypt has undergone a demographic revolution leading to an increase in population from 2.54 million in 1800 to around 66 million in 2000. This revolution is expected to continue until the beginning of the 21st century. Population growth is also coupled with an internal rural-urban migration phenomenon.

Population and economic development. Population and urban growth have taken place without the conditions for productive and migratory behavior to exist in harmony with economic and industrial development, leading to density, marginal employment in the informal or black economy, and unplanned settlements in city outskirts and buffer areas.

Lack of urbanization management. Development policies have been characterized by a spatial bias manifested in the location of most development projects in some regions only, and the monopoly of the 'center' (the capital, urban regions and peri-urban areas) over all national resources leaving minor resources for the remaining countrywide peripheral regions.

Obstacles to balanced spatial development

There are many factors that have led to unbalanced urban patterns, the most significant of which is lack of agency coordination. There are multiple ministries and agencies responsible for urban management. A list would include:

1. the Ministry of Housing, Utilities and Urban Communities with its different agencies concerned with urban planning and new communities;
2. the Ministry of Local Development, mainly-concerned with the construction of villages and the provision of their utilities;
3. the Ministry of Agriculture and Land Reclamation for villages built on newly reclaimed land which are not under the care of the Ministry of Local Development;
4. the Ministry of Electricity and Energy, responsible for the supply of city and village electricity networks and the establishment of power generation plants;
5. the Ministry of Transportation, responsible for building main highways and sub-inter-city and village roads;
6. the Ministry for Investment (and for the Public Business Sector), which supervises housing and contracting companies, and which plays a significant role in urban activities.

Multiplicity of laws and regulations

Regional planning. The Ministry of Planning (MOP) has divided the total land area of Egypt into eight regions by virtue of Presidential Decree 475/1977. The Ministry of Housing has also developed other independent divisions of Egypt's regions that differ from those of the MOP. This results in serious contradictions in the terms of reference, particularly between the Ministries of Planning and Housing and wasted effort, time and money due to duplication of activities and lack of coordination between the different agencies.

Physical planning. Law 3/1983 identified city and village physical planning development stages represented in structural, general and detailed planning. However, 20 years after the issuance of this law, there remained thousands of villages due to the domination of central ministries over municipalities, and the lack of municipal administrative and technical structures.

The lack of binding planning laws has made it possible to change the 10 agglomerations around Cairo — proposed to relocate some activities and population outside the current urban bloc — into luxury housing for the wealthy, and to establish a new city east of Cairo (New Cairo) to accommodate a population of nearly 4 million in addition to the current Greater Cairo population.

Building and demolition laws. Over the past 40 years a number of laws and decrees were issued regulating construction and building, the most recent of which was issued in 1986. Noticeably, however, the number of unlicensed buildings erected during the last three decades has been much higher than the number of licensed buildings, and city physical plans have become 'changeable' leading to the increase in population and building densities over legally decreed rates.

Desert and coastal lands. Competition for the possession of land outside town or city cordons is a recent phenomenon. Legally, the Ministry of Defense has the right to utilize any location it deems appropriate for purposes of national defense. This right has also been granted to the Ministry of Interior (Land Authority) and to the Ministries of Agriculture and Land Reclamation, Tourism, Housing, but with relatively lesser powers. Insufficient coordination among these agencies has created obstacles and overlapping. For example, Cairo is surrounded by a belt of military and police camps and establishments, complicating the city's urban development.

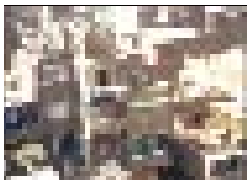
For this vision to come true, two approaches could be applied:

- stepping outside the current inhabited boundaries and identifying new growth poles;
- longitudinal and transversal expansion adjacent to current activities.

Developing spatially

A new spatial development vision would require that state priorities and investment allocations aim at restoring the balance between population growth and the space and resources available for physical and economic growth. The two approaches are not necessarily contradictory as the first is a relatively long-term approach, and the second a mix of short-term action programs, both working in parallel, and in line with the identified implementation potential.

Box 8.1: Aesthetics and urban planning



Egypt's urban centers such as central Cairo and its suburbs, notably Heliopolis, were once famous for the aesthetic quality of their urban planning and their architectural style. Today, they share with other urban centers the impact of a number of negative factors:

- disfiguring and mutilating ad hoc urban development;
- lack of national property maintenance and the resulting architectural and constructional dilapidation;
- no maintenance of private housing under the old rental laws due to derisory income from rents;
- emergence of private and inferior buildings for high rental and fast turnover selling;
- increasing real estate value that is out of step with most household incomes;
- parallel system of old rental values co-existing with higher 'new' rents and causing a clear social imbalance in the housing market;
- the multiplication of closed/unused housing units purchased as investments.

Source: Sultan Abu Ali, Background Paper, EHDR 2005

The growth poles approach

This approach is based on identifying growth poles located far from the current inhabited Nile Valley, and on developing activities that can attract inhabitants to these areas to accelerate the achievement of sustainable development objectives. The approach can be implemented using three principal methods:

- turning Cairo into a closed city;
- creating a new capital for Egypt;
- developing remote growth poles.

Cairo as a closed city

Over the past 50 years, Greater Cairo received a significant share of internal migration, which contributed significantly to the Greater Cairo population growth, reaching 35% of the total population increase between 1935 and 1965, and settling at about 30% between 1976-1996. Taking into account the fact that the growth rates of squatter settlements — around 8% annually — were double the growth rates of planned areas (estimated at 4% annually), and adding the ensuing absorption of peri-urban rural lands into Greater Cairo, internal migration then accounts for up to 50% of the population increase in the Greater Cairo region.

▼ **Internal migration accounts for up to 50% of the population increase in the Greater Cairo region**

Box 8.2: Creating new settlements

• **The planned response**. New Towns are a twentieth century phenomenon of planned urban communities built from scratch to be self-contained with an economic base and a full range of services and facilities. In Western societies, new towns usually follow the Garden City concept with a small population (around one hundred thousand), heavy orientation towards family and detached houses with many green areas. Their economic activity is usually centered around small and medium manufacturing industry.

There are over 20 new towns in Egypt, created to attract an officially projected population of 15 million out of the Nile Valley. Although the first generation of the 1980s were relatively successful, two of these towns are now within the field of the Greater Cairo Region. Political will would have been needed to effectively utilize Sadat City, about 90 km away from Cairo, as the administrative center for government, initially intended. Today, the City's empty premises have been remodeled into classrooms and lecture halls for Menoufia University. The Sixth of October City has become a suburban community of Cairo, attracting mainly middle class commuters. Overall, the agency responsible for new towns, the Authority for New Communities (ANC) has yet to provide the mix needed to attract the targeted number of residents.

• **The informal response.** Informal settlements around the Greater Cairo Region, such as Manchiyet Nasser and Boulaq El-Dakrour, developed around the mid-1970s at a time when the government started to build the first new towns. These informal settlements developed faster compared to the first generation of new towns — housing more residents and providing more jobs. They also developed specific social arrangements that met community needs. While they suffer from social ills and inadequate infrastructure, they have come into being as a result of a substantial demand for dwellings, and the market has responded by providing them.

• **The private sector response.** Several new and expensive private sector suburban developments in the desert areas around Cairo have attracted the wealthy as they escape from decaying and neglected downtown areas. While adding to Cairo's urban sprawl, they fall within the range of new road networks and are a manifestation of the desire for better environmental and housing conditions among a growing middle class.

Source: Ahmed el-Kholy, University of Menoufia

▼ A new capital would become an administrative as well as an alternative development center, while old Cairo would remain the cultural and commercial center

The idea of 'closing up' the Greater Cairo area was floated more than three decades ago, and took on a new lease of life when proposed recently by Egypt's First Lady. Cairo as a closed city would reduce pressure on the utilities and services sector, and would encourage populations to settle in the South, in Sinai and in the new cities. It would also check expansion of squatter settlements ane emergence of new ones.

The closure methods proposed include:

- limiting permits for new investments in industrial and service activities;
- prohibiting migration to Greater Cairo through special measures;
- rerouting traffic and extending travel facilities away from Greater Cairo;
- upgrading factors contributing to raised quality of life.

A new capital for Egypt

The Future Development Vision for Egypt to 2022 included in the Five-Year Plan 2002-2007 has focused on the importance of increasing the inhabited area to 12% of Egypt's total area. One means of achieving this goal is, in fact, to create a new capital as an alternative development magnet to Greater Cairo. Initially, the following features have been proposed:

- location about 400 km away from Cairo and the old Valley, but within the urban cordon targeted for development;
- a guaranteed economic base (agricultural, industrial or services);
- ability to host government and its agencies, national organizations and diplomatic missions.

In this scenario, the new capital would become an administrative as well as an alternative development center while old Cairo would remain the cultural and commercial center, with an improved quality of life owing to reduced population pressure, and increased resources to upgrade services and utilities.

There are precedents to moving a capital city. Pakistan's capital was moved from Karachi to Islamabad; Brazil's capital has moved from Rio de Janiero to Brasilia, and Turkey's from Istanbul to Ankara. In all cases, conditions in the older cities improved as a result, and location of the new capital was most frequently in the heartland that governments were seeking to develop economically, physically and socially.

One of the suggested locations for a new capital for Egypt is the Western desert which covers two thirds of Egypt's total surface area, possibly in the

middle of the Western Desert development corridor. With a new railroad connecting the Western Desert to the Red Sea, and a highway connecting the new capital to the North Coast — at Alamein for example — and extending south to the heart of Africa, other connecting corridors that would promote economic development would appear as a likely follow-up.

The issue of financing such a project remains to be explored, but funding could be partially covered by transferring the budgets allocated for improving Cairo towards the infrastructure of the new location.

Remote growth poles

With a new capital for Egypt in the Western Desert, a main road connecting South and North Egypt and a railroad going from West to East reaching up to the Red Sea, growth poles would emerge along the road and railroad lines. Further, new peripheral but major growth poles would develop:

- around the new capital where agriculture would be the main development vehicle, along with industry;
- on the Red Sea south, depending mainly on tourism, fishing and other marine activities;
- around Alamein and the northwestern Mediterranean coast, relying mainly on a diverse base of agriculture and fisheries, tourism, small industry, in addition to marine activities. Development could accelerate if WW II landmines are cleared from the area;
- in Siwa and in the different oases located along or near the south/north highway, with great potential in agriculture, grazing and desert tourism, in addition to agribusiness and handicrafts;
- around the mining activities along the railroad line connecting the new capital site to the Red Sea.

The urban expansion approach

This approach increases the inhabited area into the desert by expansion outside the Nile Valley into adjacent and then further successive areas. Urban expansion takes advantage of the existing nearby infrastructure and reduces the costs of extension, at least in the first stages of development, while maximizing on the economic and social returns from the available spatial allocation of resources.

Two other stages are envisaged to follow this less complicated approach to urban development: the creation of growth poles, followed by comprehensive development. These proposals are developed further below.

A new spatial division for Egypt

Initial studies indicate that the areas that can be developed and constructed on the long term are in the range of 25% to 35% of Egypt's total area. This vision believes that Egypt can move towards these targets through phased stages, many of which are already being developed by a number of state sectors. They include direct relocation into desert lands adjacent to the old Valley and Delta; development of growth poles with relatively easy to utilize existing potential; implementation of corridors of infrastructure; and a comprehensive social and economic development plan to manage their respective potential and natural and human resources.

▼ **Urban expansion increases the inhabited area into the desert by expansion outside the Nile Valley into adjacent areas**

Box 8.3: Exploiting Egypt's geological structure

Egypt's lands can be divided into the following major areas:

- **the Valley and Delta**: characterized by highly fertile land;
- **the Western Desert**: which includes the Western desert depressions from Toshki in the South passing through al-Kharga, al-Dakhla, al-Farafra and Al-Bahariya Oases, up to Siwa Oasis in the north. This is often referred to as the "Western Green Belt" which is an agricultural and industrial, as well as a mining development corridor;
- **the Eastern Desert**: located between the Red Sea and the Nile Valley with abundant mining resources in a variety of minerals and rock ores;
- **the Sinai Peninsula**: characterized by its coastline along the Red Sea, the Gulf of Suez, the Gulf of Aqaba and a central plateau. The area has tourism, agricultural, mining, industrial, oil and other potential development resources;
- **the Fayoum Depression**: rich with agricultural, fishing, tourism and industrial potential.

Source: Ahmed El Kholi, Background Paper, EHDR 2005

Figure 8.1: Map 1: Longitudinal corridors of development and corridors of urban expansion

Source: Abou Zeid Rageh, Cairo University

Egypt's surface area can be divided longitudinally from North to South into successive development corridors, with the current inhabited corridor in its core (see Figure 8.1). The surface area can also be divided transversally from East to West into veins that are perpendicular to the longitudinal development corridors. These veins would transfer power, utilities, raw material and agricultural and industrial products between development poles and help promote population movement from currently inhabited areas in the Valley and Delta to the new development areas.

Successful spatial development is linked to the balanced use of all available resources

A region would include wide spaces and diverse economic activities, thus increasing the region's investment and production potential to become economically self-reliant, phasing out central interventions and financing. Regions would be more capable of maximizing the synergies of new technologies (energy, telecommunication and information). Given their understanding of local employment conditions and an incentives framework proportionate to these conditions, regional administrative units could develop efficient technical and administrative cadres and generate inter-regional competitiveness in achieving development goals.

The transversal division of Egypt's surface area should ensure that each region would include segments of different development activities (industrial, agricultural, mining, tourism…etc.). It would integrate both current and new inhabited areas socially and economically. This diversity would help increase overall rate of economic development, and also make available to many regions – particularly in Upper Egypt – outlets on the Red Sea in addition to the North region outlets on the Mediterranean.

The targeted social groups who will relocate to new communities will require special incentives such as inexpensive housing, or attraction factors such as significant services benefits and employment-directed vocational and professional rehabilitation not available to existing inhabitants of the old lands.

It is also proposed that regional capitals be located in new cities and not in governorates, as this would significantly assist the growth of these cities and prevent overpopulation in current governorate capitals.

Strategy, management and planning

Formulating a clearly defined economic, social and urban national strategy requires a conceptual umbrella or framework for development policies and plans. This would be the indispensable guide for the creation of a national spatial framework. Strategy within this framework is not a long-term plan but a vision for the future, providing basic referential principles that would govern decision-making at the different levels and areas. It would be associated with a long-term timeframe, but open to modification as the need arises. Development, in the context of rapid change depends upon flexiblity in planning and management mechanisms.

It is recommended that the current unidimensional development approaches, mainly related to a specific axis or sectoral activity, be replaced

Box 8.4: Two pilot regions in a phased approach

It is suggested that two regional development divisions be targets of a first experimental phase (2005-2015); the first would combine the East Delta and Sinai, and the second would be in South Upper Egypt (as outlined in Figure 8.2).

The first division would have the Salam Canal Project (c. 620,000 feddans) as its agricultural artery and the National Project for Sinai Development (MOP, September 1994) as its broad framework. This project aspires to move a population of three million to Sinai, and the governorates of Sharkia and Dakahlia may provide the population.

The second division is South Upper Egypt and would have the Toshka project (see Chapter Six) as its agricultural core, and the National Project for South Egypt Development (MOP, March 1996) as its broad framework. The governorates of Qena and Aswan may provide the population.

Implementation of integrated and sustainable development of the two divisions will build the necessary experience in management and test the practicability of institutional bodies created for planning, management and evaluation. The two divisions present all prospects and challenges related to land-use planning, sustainable development, demographic relocation, and development of new urban and rural communities, and the appropriate system of administration.

Source: Mohamed El-Kassas, Cairo University

Figure 8.2: Map 2: Egypt's future eight regions

Cairo: Cairo, Kalyoubia and Giza governorates;
Middle Delta: Dammietta, Kafr El-Sheikh, Gharbia and Menoufia governorates;
East Delta: Sharkia and Dakahleya governorates;
West Delta: Beheira, Alexandria, Matrouh governorates;
North Upper Egypt: Beni Suef, Menia, Fayoum and part of the Red Sea governorates;
Assiut: Assiut, Suhag, the New Valley and part of the Red Sea governorates;
South Upper Egypt: Qena, Aswan, South Red Sea and Southwestern Desert;
Sinai: North and South Sinai governorates, Port Said, Ismailia and Suez.
Source: Abou Zeid Rageh, Cairo University

by an integrated and diversified formula, mobilizing all appropriate national and international expertise to exploit local capacities via frontline technologies in industry, agriculture and power. Spatial development is linked to the balanced use of all available resources, mixing and matching these with the potential of each region, demand factors, and in line with the requirements of each national development phase and program.

The current administrative system is based on a strong centralized government, and distended and weak governorates. Regions, zones or settlements are likely to respond best to administrative styles that are appropriate to their conditions. The desert and coastal nature of new inhabited areas, unlike that of the old Nile Valley and Delta, are likely to flourish under a decentralized management style giving local regions and administrations the power to manage their own affairs in the identification, prioritization planning, and implementation of projects deemed best suited to their needs, with the active participation of civil society and decentralized institutions.

For urban and development management and planning, one proposal is to create a new management level between central government, on the one hand, and governorates and municipalities on the other; This would be a new level of 'regional administration', so that each region would have its administrative structures and would become responsible, through its enormous potential, for the development of its own regional planning and for coordination between governorates under its jurisdiction.

As suggested earlier, a 'region' is envisaged to cover wide areas and diverse economic activities, thus increasing its investment and production potential to become economically self-reliant, phasing out the need for central intervention and financing. Regions are expected to be better at maximizing on the synergies within their boundaries, including those from new technologies in energy, telecommunication and information.

▼

A 'region' is envisaged to cover wide areas and diverse economic activities to become self-reliant

The close association between development and urban management suggests that one umbrella organization could act as coordinator of all levels: and which would be vertically connected to three institutional bodies:

1. *A Central Agency for Development and Land-Use at the national level.* This agency would develop national plans which identify major and subsidiary development aspects, with their respective resources and potential; subsidiary communication corridors that link and supply them with utilities; the phasing of plans, and population spread within the framework of national policies; and the optimum urban pattern for human settlements in the new development areas.
2. *The Regional Development and Physical Planning Authorities.* Each region would have its agency, which would be mandated with the development of the specific region's urban and development planning, with all its required social, financial and environmental studies, as well as studies of the region's natural and human resources, within the framework of a national plan and development strategy.
3. *Local planning committees.* These committees would undertake tasks similar to the Regional Development and Physical Planning Authority, but within their local administrative borders.

▼ **The cross-cutting and cross-sectoral nature of environmental issues requires great coordination in planning**

These interlinked bodies would consult horizontally with other sectors, bodies and executive organizations of a similar national, regional or local status that could contribute to their planning or implementation processes. In this way, development and urbanization could be implemented within a unified integrated system allowing Egypt to effectively face its current complex and pressing challenges.

2. Environmental Issues and Concerns

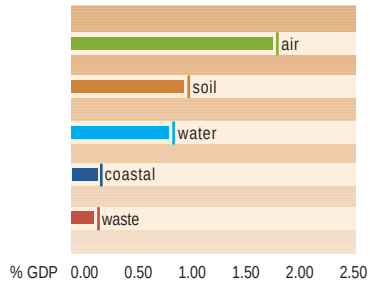
The strategic objective of environmental policy in Egypt is to introduce and integrate environmental concerns relevant to protecting human health and managing natural resources into all national policies, plans, programs and projects. The medium-term objective is to preserve natural resources, biological diversity, and national heritage within a context of sustainable development. The short-term objective is to reduce current pollution levels and minimize health hazards to improve the quality of life in Egypt.

Egypt is one of the most densely populated countries in the world. The demographic explosion can arguably be blamed as the fundamental reason for the increasing pressures on Egypt's carrying capacity. Manifestations of a progressive imbalance in the ecosystem in a number of locations in Egypt indicate that Egypt now faces environmental pressures that are likely to impede its social and economic development, and diminish the quality of life of its citizens, in some cases reducing their capacity to contribute productively. An estimate of the World Bank in 2002 shows that the annual cost of deterioration in natural resources and a depleting ecosystem could be as high as US$ 5.5 billion. Evidence also indicates that the multiplication of environmental risks and hazards to which citizens are exposed in their daily life is progressing at a rate that threatens to outpace restorative action.

Egypt is endowed with varied geographic zones, each with specific attributes of resource base, climatic conditions, terrain and geomorphic characteristics, land use patterns and socio-economic conditions. Because of the cross-cutting and cross-sectoral nature of environmental issues, the coordination that is required by policymakers and administrators alike to attain comprehensive environmental wellbeing is daunting.

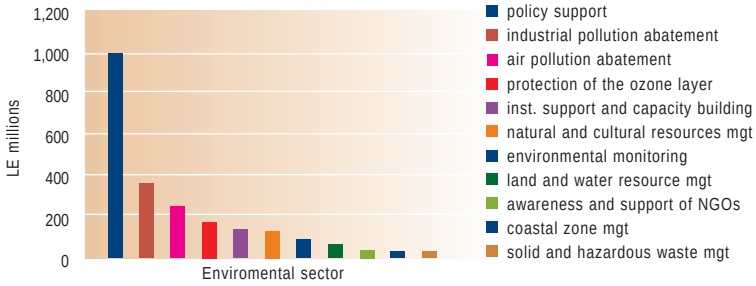
A key element — now missing — is to integrate environmental policies within economic policies under a nationalplan to guarantee that environmental considerations are taken into account early in the planning process. Laws and regulations alone cannot resolve the challenges that environmental and developmental issues pose, nor can overseas development assistance alone. What is required is an innovative mix of policies, economic instruments and market-based measures, which will induce changes in production and consumption behavior.

Figure 8.3: Cost of environmental degradation/Egypt



Source: World Bank (2003), Cost of Environmental Degradation in Egypt

Figure 8.4: Distribution of ODA to the enviromment by sector



Source: World Bank (2004) Egypt Country Environmental Assessment Report

It is clear that market and profit considerations are a factor in the loss of environmental quality. Conservation measures must be viewed with respect to their social as well as their market value — reflected in budgetary allocations and disbursements — to take into account their impact on quality of life, which in turn, impacts on the wellbeing and productivity of citizens. However, in this perspective, national budgetary policy has not necessarily been applied to a level playing field. A World Bank report (1999/2000) identified the poor as those most likely to lack access to public information on environmental hazards, and more likely to be seriously impacted by environmental ills.

Some of the challenges

Target 7 of the MDGs covers environmental sustainability with the specific aim to reverse the loss of environmental resources, achieve significant improvement in the lives of slum dwellers, as well as significantly raise the proportion of people with access to safe drinking water and basic sanitation.

MDG targets broadly reflect a parallel commitment by the GOE to address these and other crucial environmental concerns, and reference is also made to them in Chapter Nine of this report. However, a brief assessment of the major shortfalls in Egypt's environmental configuration gives an indication of the magnitude of the reform task that lies ahead:

- *biodiversity*. Egypt is experiencing the loss of its rich biological diversity, the root causes for which includes human encroachment, lack of public awareness regarding conservation, and lack of qualified human resources in this field;
- *land*. Availability of cultivated land is a major concern. The gap between agricultural production and food demand of a growing population is expected to increase in the future. Crop intensification and absence of Nile flood silt cause the soil to lose its productivity. Further, Egypt faces various forms of desertification and the degrading of both irrigated and rain-fed farmland;
- *urbanization*. Informal housing around Egyptian cities and villages mostly develops over cultivated land. Urban primacy also eats into the limited fertile land and contributes to human congestion in the Nile Valley;
- *water*. There is an ever-increasing gap between Egypt's limited water resources and escalating demand. The present per capita share is less than the water scarcity threshold. The water quality of the Nile, irrigation canals and drains, particularly in Lower Egypt has deteriorated significantly (see Chapter Nine);
- *sanitation and solid waste management*. Poor populations may have access to flows of safe drinking water; however, access to proper facilities for wastewater management seriously lags behind. Egypt lacks sufficient sanitary landfills, transit stations and proper means for management of solid wastes, including industrial and hazardous medical waste, sludge from wastewater treatment plants, dredged material from waterways, agricultural waste and construction debris;
- *pollution*. Published air quality data show that poor air quality prevails in major urban

▼ **Conservation measures must take into account their impact on quality of life**

Box 8.5: The power of coalitions: recycling (bypass) cement dust

Three cement factories in Cairo produce about 1200 tons of cement dust (bypass) daily. This has been the compelling reason behind a drive to recycle the dust through a highly successful joint venture between the Ministries of Environment and Housing, the Housing and Building Research Center (HBRC), the cement factories and Egypt's huge semi-public contracting company, the Roads and Bridges Authority, and the private Esenpro Group to process and utilize cement dust for the production of pavement/curb tiles, and for paving roads in villages, using cement mix to replace asphalt. The dust is also used for manufacturing glass containers and sheet glass. The cost of traditional paving material such as asphalt is about LE 2 million/km, while pavements using the more hardy cement bypass cost about LE 150 thousand, or a tenth of the cost, and are easily repaired.

Source: Mona Yassin, Al Masry Al Yom

▼ Egypt has a long history of environmental legislation, but compliance is weak

and industrial centers. The World Health Organization (WHO) standards for air quality have been exceeded at six sites in Cairo that are traffic areas exposed to exhaust from motor vehicles. Other sources include industrial emissions and the practice of burning rural waste in proximity to built up areas;

- *marine environment*. Sources of pollution and erosion of coastal ecosystems include land-based harbors and tourism development as well as water-based sources of effluents;
- *cultural heritage*. Many enclosed and open space monuments are exposed to urban encroachment, water seepage, carbon dioxide emissions, exhaust fumes, vibrations, and undue exposure to public viewing that contribute to the decay and loss of an irreplaceable heritage.

The institutional setup

At least 17 ministries are involved in the administration of around 81 laws and numerous decrees with environmental components to them. Broadly speaking, almost all infrastructure projects and a good many other major activities by line ministries have environmental implications. In addition, there are over 40 government organizations involved in the environment.

Although Egypt has a long history of environmental legislation, compliance is weak because enforcement is not efficient enough. Egypt needs to strengthen the institutional mechanisms necessary for effective environmental management. The two chief bodies directly responsible for environmental affairs are:

Ministry of State for Environmental Affairs

The Ministry of State for Environmental Affairs (MSEA) was created in 1997. Its mandate is to achieve a balance between the development needs of the nation while protecting its natural resources. MSEA is required to address the cumulative impact over the past 40 years of environmental problems, mobilize investments and build human capacity. A National Environmental Action Plan (NEAP) has been developed, to be implemented through line ministries in collaboration with major stakeholders such as the private sector and NGOs.

Egyptian Environmental Affairs Agency

The EEAA was set up in 1982 as the highest authority in Egypt responsible for promoting and protecting the environment. However, since the creation of the Ministry of State for Environmental Affairs, the EEAA serves as the central coordinating body that develops policies for the MSEA, oversees their implementation, and monitors progress. The EEAA is divided into three technical sections that cover:

1. quality issues, including policies, plans, data and information.
2. management, responsible for national impact assessment and pilot projects.
3. nature protection, with divisions for biodiversity and natural protectorates. An enforcement unit was set up in 2001 to inspect and monitor compliance with environmental legislation. Tasks it faces include administering natural protectorates, phasing out leaded gasoline and promoting natural gas vehicles, relocating polluting industries away from urban settlements, or reducing emissions produced by these, and reducing the use of chemical pesticides and fertilizers.

The recently declared plans of Ministry of Tourism with respect to new tourist developments as one of the main engines of growth may have significant effects on the environment. The

MSEA and EEAA need experienced specialists in ecotourism to become focal points responsible for environmental management. Human resources currently available fall short of what is needed to meet their institutional obligations.

Building coalitions

Civil society and the private sector have a vital role to play in conserving the environment. The NEAP involved several stakeholders in shaping the plan's outcome, and give their commitment to the implementation and monitoring of the proposed projects. A main outcome has been the creation of a channel for dialogue between NGOs and the GOE, further strengthened by the presence of an active 'union' for all NGOs contributing towards the realization of environmental goals.

At the regional and local level, public agencies have little human and financial resources to carry out environmental activities, and are largely dependent on allocations from central government. Private sector participation may provide an alternative funding source. The policy of the current minister of the MSEA is to strengthen local, regional, and national capacities to collect, analyze, share and use multi-sectoral environmental information and data, so as to improve overall quality, coverage, and timeliness of preventative and remedial action. This can facilitate the design of efficiency measures to cut waste and pollution, within an enabling market-based regulatory environment that provides economic incentives and disincentives to support and complement environmental regulations.

The Old Valley and beyond

To date, agriculture remains one of the major productive sectors of the Egyptian economy, contributing 16 to 18% of GDP. This contribution is expected to increase as export-oriented intermediate products in agribusiness increase, and as more reclaimed land becomes available and more use is made of mechanization and high yield crops (see Chapter Six).

However, the erosion of fertile land in the Nile Valley and Delta to make way for human settlements corresponds to a yearly loss of 0.6% of Egypt's total agricultural land. It is estimated that per capita agricultural land decreased from about 0.25 feddan/cap in 1960 to about 0.13 feddan/cap (500 m^2) in 2000 and it is expected to be about 0.09 feddan/cap (380 m^2) by 2017.

Furthermore, agricultural activities are now characterized by intensified production. Such practices lead to soil depletion and diminished productivity. Due in part to the High Dam, cultivated land also lacks the nutrients provided in the past by the annual Nile floods, and farmers resort to the use of large amounts of fertilizers to increase the yield.

Desertification is a growing phenomenon in Egypt. It results from a combination of the inherent fragility of the ecosystem and, in the case of land degradation, excessive exploitation of both irrigated and rain-fed farmland that is beyond the productive capacity of the ecosystem. Affected zones include the northern coastal belts, the fertile alluvial land of Upper

Box 8.6: The seasonal black cloud and low cost housing

Greater Cairo has suffered from a seasonal 'black cloud' that is the result of the practice of burning rice straw stubble in adjacent cultivated land, and that has been resistant to various attempts to eradicate it. Recently, the Minister of State for Environmental Affairs has introduced a novel way of recycling rice straw waste through the use of compressed rice straw as a building material. This alternative to burning was implemented as pilot project to build a 600 m^2 Environmental Awareness Center in Helwan, about 25 km south of Cairo. The project was a success and the MSEA is currently studying the possibility of replicating this experience in the different Egyptian villages, and providing the necessary plants and machinery for this. In the immediate future, the project will be replicated in Ma'asara, to construct a second environmental awareness center.

Rice straw recycling involves collection from farmers, transfer to the recycling plant, pressing the straw and finally forming the pressed rice straw into tiles which are then enveloped in industrial cardboard to be used as prefabricated walls for buildings, which are completed using wood structures. The cost of building with rice straw is equivalent to one tenth the cost of building with traditional material and tools. The Helwan center building cost, excluding finishing, was LE 85 thousand. The center was then supplied with technical finishing including water supply and power, lighting fixtures and equipment, which raised the cost marginally.

Rice produced in 2004 was estimated at 5.6 million tons, of which 2 million tons were recycled. This project would assist in increasing annually recycled quantities of stubble produced by 1 million feddans of rice in cultivated lands.

Source: Mona Yassin, Al Masri Al Yom

The erosion of fertile land in the Nile Valley and Delta corresponds to a yearly loss of 0.6% of total agricultural land

Egypt, the Delta and the reclaimed desert areas on the fringes of the old Nile valley. Oases and remote areas in Sinai and in the south are also fragile. Egypt has about one million square kilometers under arid and hyper-arid climatic conditions, and while these areas are not amenable to traditional agriculture, they have distinct ecosystems of their own, which, if not respected, also contribute indirectly to desertification.

▼ **Institutional transformation requires an understanding of the nature of the tensions between different interests in the existing settings**

Private ownership impacts positively on environmental quality

By upgrading physical and social infrastructure as an integral part of economic growth, the premise is that environmental degradation will eventually decline, as per capita income increases, and as people become aware of the importance of sustaining the environment, and are willing to pay to improve environmental conditions. This requires a change in the modalities of managing and financing resources.

A means to achieve this is to close the savings-investment gap by reviving dead capital in the real estate markets. This is possible by securing land tenure and ownership and by putting credit or low interest mortgage facilities at the disposal of medium and low-income families, thus moving them from lower levels of utility and housing services to higher levels simply because land tenure has directly increased their net worth and relaxed their budget constraints.

Formalizing landholdings turns the residents into legal entities that financial and assistance programs recognize. Securing ownership means encouraging savings and investments to improve the dwelling unit and workshop. This, in turn, encourages people to invest in their business or home holdings, and provides the incentive to comply with protective environmental directives. Finally, formalized landholdings can be used as collateral for access to credit needed to finance productive entrepreneurial ventures. At the macroeconomic level, a program for formalizing land ownership and securing tenure is being developed by the Ministry of Finance. Securing tenure of land is seen as likely to raise government revenues mainly through an increase in the tax base.

The role of information and research

Information exchange

Accurate information is a necessary precondition to enable local administrations and civil society institutions to embrace opportunities for environmental improvement initiatives modeled elsewhere and that have the potential to promote economic growth and raise standard of living.

Some proposed mechanisms for the collection and dissemination of information include:

- *Observatories for information generation and exchange:* Information exchange is a requirement for a free market to operate efficiently. Technology transfer and awareness of best practice depend on good communications. Growing environmental awareness worldwide has created a demand for and supply of frontline environmental goods and services. In Egypt, a network of 'urban observatories' — whether independent or attached to an official body — could produce indicators for planning and management of urban development. These could also be instrumental in formulating and reporting on MDGs and national and local HDRs.
- *Participation for information generation and exchange:* Participation puts the public at the heart of the development process, and promotegreater public self-reliance. At every social level it raises awareness, and permits information to be generated and disseminated; it creates coalitions to address issues, reach consensus and formulate solutions; it leads to institutional transformation by involving interested parties in the decision-making process; it sensitizes the planning process to current determinants of economic activity and demands on resources; it creates a virtuous circle of transparency and accountability.

Increasing research

The agenda for future research should include, but not be limited to, understanding the relationship between the performance of both the regional and urban economies and the macro-aggregates at the level of contributions from

infrastructure, local government finance, and housing finance. It would explore the function of urban markets and public infrastructure and investments on growth patterns, and the effect of investments on residential and employment location linkages. Research should address how local government can participate in markets, induce private sector participation in the production and/or delivery of services, and complement and integrate public and private investments.

Political structure. This affects the efficient functioning of markets and the productivity of individuals because it is the hub of the decision-making process. Institutional transformation requires an understanding of the nature of the tensions between different interests in the existing institutional settings. Few researchers have addressed the question of how government intervention, through zoning and other sorts of regulation, helps the city preserve its economies of scale without losing its environmental assets.

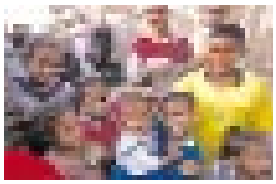
Factors of productivity

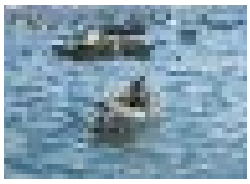
Improving productivity. There is a close relationship between basic physical infrastructure and the productivity of labor. Safe drinking water and good waste management contribute directly to lower rates of morbidity and mortality. Physical infrastructure, especially roads and power, has a direct impact on economic growth as a result of forward and backward linkages with other sectors of the economy, such as manufacturing.

Market efficiency. Regulatory reform means that the government maintains law and order, defines and protects property rights, promotes competition, provides a monetary framework, and fights monopolies. Procedure simplification ensures free entry to and exit from the market, and thus attracts migrating production activities from developed countries to cities of less developed countries where production costs are lower.

Private sector participation. A consultative procedure involving the private sector in plan preparation enhances confidence and mobilizes commitments. Evidence suggests that private sector companies are able to finance and run some services more efficiently than government and a rational choice must be made between the effectiveness and technical capacity of private versus municipal institutions, and the public cost.

Box 8.7: Research into alleviating urban poverty





Six sets of indicators are recommended to comprehensively assess poverty and propose means for alleviating it. They are:

1. the percentage of urban poor, percentage of adults participating in the labor force and average hourly wage;
2. the ratio of the price of a house to the income of the household, the ratio of rent to income household, tenure pattern;
3. access to services and basic infrastructure such as safe drinking water, sewerage, regular solid waste collection, and electricity;
4. the ability to afford urban and social services, for example, the portion of household income spent on education or health;
5. the ratio of government spending on infrastructure as an indirect measure of the supply of infrastructure for residential development;
6 gender-specific indicators, such as the number of female-headed households living under the poverty line, gender wage equity and the like.

Source: Ahmed El Kholy, University of Menoufia

The mechanisms of reform

Frequently, laws and regulations demonstrate overlap or inconsistency, the environmental mandates of the numerous ministries often being in contradiction or in competition with each other. Actions that impact on the environment are implemented in isolation from each other, according to a priority ranking set by the central authorities with information gaps that undermine decision-making. One important task is therefore to coordinate and streamline the legal framework, as well as policies and procedures. The role of the EEAA in this respect could become crucial.

▼ **Involving the private sector in plan preparation enhances confidence and mobilizes commitments**

Rapid development, whether urban or rural, threatens the environment and productivity. A phased environment management strategy — elements of which are evident in the recent NEAP — will reduce environmental degradation and the

Box 8.8: Developing man-made islands north of the Delta

Since the creation of the High Dam, the silt and mud the flood waters brought to the northern shores of the Delta has been accumulating on the shores of Lake Nasser and Egypt's coastal areas are now subject to erosion. The northern governorates such as Damietta, Dakahlia and Kafr El-Sheikh raise livestock and produce dairy products. Creating islands in the Mediterranean Sea to grow animal forage using the available rainwater is under discussion at the Ministry of Water Resources and Irrigation. The engineering concept is similar to that applied in the Netherlands — to move small agricultural activities outside the Delta to the sea and the desert area to achieve economies of scale, protect the Delta and coastal areas, and consolidate and preserve agricultural land. The idea needs investigation on its practicality, economic feasibility and environmental impacts.

Source: Ahmed El Kholy, University of Menoufia

probability of high pollution levels, which in turn have direct impact on health, measured in rates of mortality and morbidity, which in turn affects productivity, thus undermining the economy.

▼ Energy is a major source of income that generates a large share of Egypt's foreign currency

An effective approach to the environmental challenge depends on the successful outcome of the following six foundations:

- *to mobilize public support and participation*. The public has to demand and pay for improving environments, and local institutions must be held responsible for delivering quality services. This will probably require building partnerships between public and private agencies to propose, develop and finance effective and sustainable solutions;
- *to develop winning policy interventions*. Short-term instruments are not the tools to change behavior and resolve environment problems in a sustainable manner. Focus should be on a graduated long-term approach using a few strategic interventions and/or activities at a time, which can be managed effectively. Policy tools include economic and regulatory instruments, property rights, land management instruments, and information and education;
- *to build the capacities of institutions*. The capacities of institutions should be compatible with the size of the regions or cities they manage. Building the capacities of local technical staff to cope with environmental hazards is a must. Operational management would include training on strategic planning, municipal finance, and land management;
- *to enhance the level of service delivery*. This includes improving the management of infrastructure and services for which municipal authorities are responsible, thus gaining environmental benefits without sacrificing economic growth;
- *to plan strategically*. Strategic planning requires a holistic approach which considers a measure as it contributes to the overall national development plan, then defines its particular mandate and mission, its location and specific eco-needs, the public and/or private collaborators, financiers, and potential clients, and the expected social and economic returns from its activities.

Egypt's proposed new land use plan has included the recommendation to redeploy the administrative boundaries of some governorates, given that present boundaries often constrain their development potential. The Governorate of Gharbia for example, has a strong agricultural base as well as three large urban settlements that contribute significantly to the industrial sector. However, it does not have access to wasteland for solid waste disposal or a sanitary landfill, nor does it border empty hinterlands to locate new settlements away from agricultural land. Other governorates might benefit from access to the sea.

Some measures that support reform

- efficient utilization of human resources through capacity building and training, to rehabilitate and reorient underutilized bureaucratic and administrative staff towards productive tasks, many of which are in the field rather than behind desks;
- setting up regional commissions around environmental resources will make use of the economies of scale. Their boundaries should be based on economic space and markets;
- a strategic planning process relying on stakeholders' and community-based analysis would be conducive to establishing partnerships and local commitment, with an action plan and budget that is in part or totally covered by the beneficiaries. Ownership is thus ensured as are implementation, monitoring, and evaluation;
- rather than focus on penalizing the violator, laws and regulations could also reward best practice or offers incentives, such as tax

Box 8.9: Transportation, energy and the environment

At present, transportation is the second ranking economic sector in energy consumption, and thus a major producer of emissions. In 2002-2003, the sector consumed about 9.94 million TOE — corresponding to about 28% of the total final energy consumption in Egypt. The energy consumption for land transport is reported to be about 15% higher than the European level.

A key challenge for Egypt includes a review of government subsidies on oil, which are unsustainable. Another challenge is to address the hidden cost of transport, such as air and noise pollution and congestion. The potential for an extensive railroad network is positive but present stocks remain poorly maintained and the grid has barely been extended over the last 50 years. The construction of ports and other berthing facilities, while part of a government expansion plan, are likely to impact on the quality of marine life, and are liable to create a point source of pollution.

Source: Ezzat Abdel Hamid, Background Paper, EHDR 2005

Figure 8.5: Energy demand

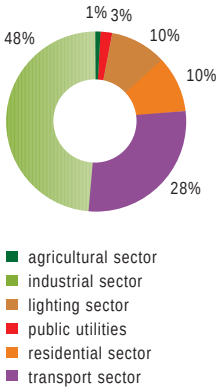
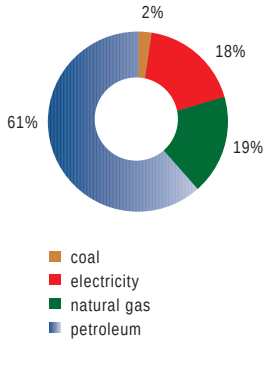


Figure 8.6: Energy supply



Source: Ezzat Abdel Hamid, Background Paper, EHDR 2005

Box 8.10: Producing gas from straw

Straw can be recycled to produce gas. About 15,000 tons of rice straw are transferred to the Kafr Azazi recycling plant in Sharqia governorate to produce gas, while another 15,000 tons go to the gas plant in Kafr EL Amir village in Dakahlia governorate. The rice straw is shredded and burnt at 1200 degree Celsius. The gas produced is then filtered; the gas tank contains a mixture of nitrogen, carbon monoxide, methane and hydrocarbons. Gas produced from rice straw does not need a regulator and can replace the more expensive butane gas for domestic use.

Source: Mona Yassin, Al Masry Al Yom

▼ **Government subsidies have kept energy prices considerably lower than the international market price**

rebates. Incentives should not be seen as losses to the state budget, but a lubricating agent for market forces to support environment policies.

3. Energy: A Sector Critical to Development

Energy consumption

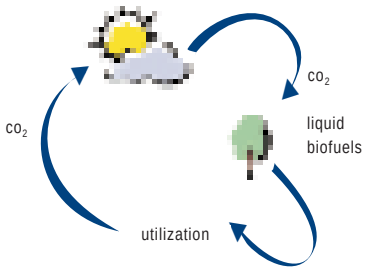
Egypt continues to be a net exporter of petroleum products and a growing exporter of natural gas. These also constitute an important source for its own energy needs. The sector is of vital importance to Egypt's economy. It is a major source of income that generates a large share of Egypt's foreign currency, and donors support developing domestic use of natural gas.

The total local primary energy production in 2002/2003 was approximately 62.3 million tons of oil equivalent (TOE) of which 55.3% was from crude oil (including condensates), 40.1% from natural gas, and 4.5% from hydropower. The total primary energy supply in 2002/2003 for national consumption was about 54.5 million TOE and total final energy consumption was about 35.6 million TOE.

The energy intensity — defined as total primary energy consumption per unit of GDP — has in the period 2001-2003 increased about 1.5% per year. The energy intensity for Egypt is much higher than it is for comparable neighboring countries (Algeria, Morocco and Tunisia). Furthermore, comparing with OECD and Europe, Egypt uses twice as much energy per unit of GDP.

A comprehensive energy plan has been developed by the GOE covering all energy sub sectors. Broadly, energy policies focus on enhancement of natural gas utilization, energy price adjustment, removal of subsidies, energy conservation, more efficient energy use, and promotion of renewable energy utilization.

Box 8.11: Power from biofuels: The case of Brazil



New generation biofuels account for only a fraction of fossil fuel use — as do other sources of renewable energy such as solar and wind power. But they are likely to make increasing inroads into crude oil use. Ethanol, or grain alcohol can, for example, be used by itself or added to gasoline to cut down on polluting emissions. Brazil's sugar-cane fields now feed a network of 320 ethanol plants, with 50 more planned over the next five years, with private and multinational investments estimated at US$6 billion in new plantations and distilleries. Most of Brazil's cars run on gasoline (or diesel) that is 22 to 26% ethanol, since combustion engines can run on biofuels, which can be distributed via conventional gas stations, and which 'stretch' gas with no modification of engines. More than half of Brazil's new cars are 'flex-fluel' or modified to run on straight ethanol, at half the cost of gas, and Brazil now exports ethanol at US$25 a barrel to a growing market. A number of other countries such as Malaysia, Indonesia, Venezuela and India are announcing biofuel initiatives.

Crops as diverse as corn, oil palms, soybeans or rapeseed and coconuts can be grown for fuel using straightforward technology. For many developing countries year-round growing seasons and cheap farm labor are a valuable competitive advantage. Further, in the case of some crops such as suger cane, part of the plant can be used to make fertilizer and as fuel for the distillery, thereby reducing use of fossil fuel to produce the ethanol. A Canadian firm has recently developed a technique to use a plant's entire 'biomass' into fuel, leaving no waste whatever.

Source: Newsweek, 8 August 2005

▼ **All new power plants are planned to be established through a private sector participation scheme**

Government subsidies have kept energy prices considerably lower than the international market price since the early 1960s. The GOE has been taking steps to reduce the subsidies. Today, the weighted average electricity tariff as a percentage of Long Run Marginal Cost (LRMC) is close to 90%, the weighted average of petroleum products prices is at about 60% of their internationally traded equivalents, while the gas tariffs cover about 90% of the economic costs. However, cross subsidization between the various consumer groups still exists

Table 8.1: CO_2 Emissions per capita (metric tons)

Country	1990	1994	1999	2002
Egypt	1.4	1.4	1.8	2.1
Tunisia	1.6	1.8	1.9	2.3
Morocco	1.0	1.1	1.2	1.4
Algeria	3.0	3.1	3.1	2.9
Paraguay	0.5	0.7	0.8	0.7
Mexico	4.5	4.3	3.7	3.7
Venezuela	0.6	7.7	6.4	4.3
Indonesia	0.9	1.1	1.0	1.4
Thailand	1.8	2.7	3.2	3.7
Romania	6.7	4.9	3.8	4.0
Ukraine	1.3	1.3	1.9	1.2

Source: United Nations (2005), Department of Economic and Social Affairs

Energy supply

Oil. Egypt has been a non-OPEC oil exporter for over two decades, with oil exports representing one of the main foreign currency sources with natural gas as the second major primary energy source. Domestic oil production is estimated to be sufficient for covering domestic consumption for the next twenty years.

Natural gas. Reserves will cover needs for at least 70 more years and natural gas will continue to play an important role in the country's energy supply, especially for electricity generation.

Electricity. The average annual growth rate in electricity production from 1990 to 2000 was 5% and is expected to continue at about 6% annually in the next five years. The electricity sector is presently under restructuring and not all regulations are in place. Its aim is to convert the existing distribution companies so that they become vertically integrated, which will include generation, part of the transmission procedure, and distribution. This is in addition to transforming the companies into joint-stock companies and the sale of part of the shares. Private investment is encouraged for the extension of the generation capacity in the future.

Solar energy. This is an important source of renewable energy, particularly for Egypt, where climatic and geographic conditions are favorable. Solar thermal heating for both residential and

Table 8.2: Policies proposed for cost effectiveness

No.	Policy measure	Sector	Invest. LE mil	Policy type	Responsible agencies / ministries
1	Mainstreaming of the environment	All	5	A	MSEAA/EEAA, ESCO, MOI
2	Demand-side management	Energy efficiency		A	MOE and EEA
3	Standards and labeling	Energy efficiency	5	A	Standard organizations
4	Industrial energy efficiency fund	Energy efficiency	50	A	MOI and MOF
5	Industrial energy efficiency ESCOs	Energy efficiency	5	A	Industries
6	Fuel substitution fund for industry	Fuel substitution	50	A	MOE, MOI, private sector
7	Reduction of T&D losses	Power generation	170	A	MOE and EEA
8	Power generation from wind	Power generation	200	C	MOE and the new & renewable energy authority
9	Emission standards for vehicles	Transport	35	B	MOTAC; private sector
10	Vehicles inspection and maintenance	Transport	70	A	MOI and EEAA
11	Vehicles fuel substitution to CNG	Transport	70	A	MOP and local banks
12	CNG for microbuses	Transport	20	B	MOTAC, MOP
13	Catalysts (new gasoline vehicles)	Transport	5	B	MOTAC, EEAA
14	Rationalized burning in the field	Agricultural residues	5	B	MOALR, governorates, NGOs
15	Centralized collection	Agricultural residues	50	B	MOALR, governorates
16	Market enabling of products from agricultural residues	Agricultural residues	10	B	MOALR, governorates
17	Briquetting of maize	Agricultural residues	10	B	private sector
18	Support for building materials using agricultural residues	Agricultural residues	5	B	private sector
19	Promotion of refinery energy efficiency	Refineries	5	A	MOP

Note: A= Benefits environment and saves conventional resources
B= Reduces environmental damage
C= Only benefits global environment

Source: World Bank (2005), Arab Republic of Egypt Environmental Assessment Report, and Egypt Environmental Review, (2003)

industrial applications, solar thermal electricity generation (combined with natural gas) and photovoltaic are now being promoted, although cost is an inhibiting factor. A 150 MW Integrated Solar Combined Cycle System (ISCCS) plant using solar energy and natural gas is planned to be established in El Korimat by 2008.

Biofuel. The total biomass energy currently used in Egypt is estimated to be about 3.6 million TOE per year from sugar cane, and other agricultural industry waste, animal and solid waste. Biogas has so far been given a low priority status in energy policy. It is estimated that the total potential of centralized biogas production plants is at about 1 million TOE.

Wind energy. A large wind energy potential is available on the western coast of the Gulf of Suez, estimated at a capacity of about 20,000 MW. Zafarana has been selected for setting up large-scale wind farms of a total capacity of 600 MW. Currently, five wind farms of 60 MW are planned for Zafarana, with foreign support.

The unified power system

In the Unified Power System, more than thirty power plants are in operation with a total installed capacity of about 17671 MW (2002/2003). About 76.4% of the capacity is provided by thermal power plants, 15.5% by hydropower plants, 7.7% by private sector thermal plants, and 0.4% by wind farms. The average efficiency of fossil fuel power increased from 25% in 1981 to 39% in the late 1990s.

All new power plants, including major wind farms, are planned to be established through a private sector participation scheme and the first established power plant is a natural gas steam turbine plant comprising two units of 325 MW capacity each at Sidi Krer on the northwestern coast, which started generating power more than three years ago.

The government has set an ambitious target to cover 5% of the primary energy consumption by renewable energy sources by 2020, excluding large hydropower plants and the present biomass utilization in industry and agriculture.

Even though the potential for larger hydropower plants in Egypt is almost fully exploited, a potential for smaller hydropower plants still exists. The total estimated capacity for smaller hydropower plants to be installed is around 200 MW.

▼ **A mix of fuels, technologies, energy prices and abatement equipment must alter to reduce the cost of enviromental damage**

Table 8.3: Estimated up-front investment for the first five years (LE mil)

Year	1	2	3	4	5
Expenditure	92	95	101	350	132

Note: The progressive repayment of this up-front financing is planned to start from the sixth year onwards
Source: Ezzat Abdel Hamid, Background Paper, EHDR 2005

Energy demand in Egypt

According to World Bank's Egypt's Country Environmental Assessment Report (2005), energy demand is expected to grow strongly in the future to reach 4.5% per annum, assuming that the GDP of Egypt will grow by 7% a year and population growth will be around 1.5% a year. The report argues for rational utilization of energy. It warns that if a mix of fuels, technologies, energy prices and abatement equipment does not alter, the damage costs will be very high, and subsidies will increase to 140% within two decades.

▼ Current levels of air pollution are estimate to cause economic damage mainly through impact on the health of people amounting to LE 6.5 billion annually

Industry. Fuels cover more than 80% of the final energy consumption in industry, and out of this petroleum products are the most important. Two sub-sectors, building material and basic metal, consume each about 25% of the total energy consumption in industry, while three sub-sectors, chemical and petrochemical, textile and garment, and food and drinks, consume about 40% of the total consumption.

Commercial and residential sectors. The total fuel consumption for these sectors is about 4.33 million TOE of which natural gas covers about 10.4 percent. Total electricity consumption is 45 TWh, including public utilities.

Thus, electricity covers about 60.18% of total final energy consumption of the sectors. Commercial fuel consumption comprises mainly LPG and kerosene. LPG is mostly used in urban areas, while kerosene is mostly used in rural areas. These sectors are known for biogass consumption, especially in rural areas. Total electricity consumption for the residential sector for 2002-2003 constitutes about 41% of total final energy consumption for the sector, where 20.5% of it goes for lighting.

The saving potential in the industry, residential and commercial and service sectors is estimated to be 20 to 30% of the final energy consumption.

Generated pollution

Historically, energy sources were low-priced and this has in many cases led to inefficient use. Constraints limiting energy efficiency and exploitation of renewable energy comprise limited technical knowledge and experience, legislative barriers, financial barriers, high customs duties and other taxes, which all contribute to the limited availability of new technologies.

With regard to environmental impact, CO_2 is the main greenhouse gas emitted in Egypt. About 83% of the total CO_2 emissions in 2002-2003 were attributed to the energy consumption of three major sectors: electricity (32%), industrial (26%), and transport (25%). The issue of greenhouse gases, global warming and climate change are of major concern. Global warming and rising water levels can affect Egypt's low-lying coastal zones, as well as affect agriculture crop patterns in the Nile Delta.

An action plan for the future

The objective of an Energy Sector Action Plan is to provide guidelines for implementing the energy-related components of the National Environmental Action Plan through an intensive consultation process involving officials from line ministries, and a wide range of professionals from energy sector stakeholders. The proposed Plan aims to reduce the environmental impacts of air pollution from the use of energy and the disposal of agricultural residues. Current levels of air pollution are estimated to cause economic damage, mainly through impact on the health of people, amounting to LE 6.5 billion annually. The proposed Plan comprises a set of around twenty policies that can reduce damage from air pollution in 2015 by 12% below current levels. In the absence of policy intervention, damage in 2015 will grow from the present level by 23%.

To implement the Action Plan will require the cooperation of several ministries. The present Board of Directors of the EEAA includes representatives from all the main ministries concerned, and it is proposed that a sub-committee of this Board implement the plan. Finance can be obtained from the funds released under the Five Year Planning Guidelines, Chapter III of the

State Budget and from the Environmental Protection Fund. Technical assistance could also be sought from international donors.

The Action Plan identifies three classes of policy:

- *Class A* comprises policies that will benefit the environment and also save conventional resources; these policies are mainly associated with energy efficiency and fuel substitution in industry and transport;
- *Class B* comprises policies that are not at present cost-effective in their own right, but which are justified by the savings in environmental damage within Egypt;
- *Class C* comprises policies that can only be justified by their relevance to benefits to the global environment.

Financial considerations

For the energy sector to be able to improve, it is necessary to formulate energy plans to be implemented for each sector sectors, especially the industry and domestic sectors. A summary review of previous donors' activities may be taken into account, as well as identification of needs for capacity building of government organizations within the identified priority areas that include renewable energy and energy conservation. ■

Global warming can affect Egypt's low-lying coastal zones as well as crop patterns

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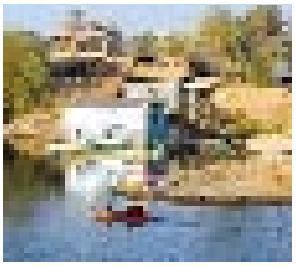
CHAPTER NINE



Management for a Clean Environment

The combination of safe drinking water, adequate sanitation and hygienic practices is recognized as a precondition for human health and for overall reductions in morbidity and mortality rates, especially among children. Water, and its companion, sanitation, are also critical to other facets of sustainable development — from environmental protection and food security to reductions in productivity losses due to morbidity and malnutrition. Thus, increasing access to domestic water and sanitation services and improving water resources management are catalytic entry points for efforts to fight poverty safeguard human health, and manage and protect natural resources. In addition, sufficient water for cleanliness and safe sanitation facilities are central to the basic right of every human being for personal dignity and self-respect.

Combining the recommendations of the World Summit for Sustainable Development (WSSD) held in Johannesburg in 2002, and the Millennium Development Goals, the following targets for drinking water and sanitation within the context of an integrated approach to water resources management are the key factors to this chapter. They can be summarized as:

- to reduce by half the proportion of people without access to safe drinking water and improved sanitation by 2015;
- to prepare national integrated water resources management plans by 2005.

A major challenge facing the water sector in Egypt is to supplement limited water resources to meet escalating demand

1. The Vital Water Sector

No strategy for the reduction of poverty can ignore people's vital requirements for water. On the other hand, sustainable development policies must address the need for equitable and sustainable management of water resources in the interests of society as a whole. Freshwater is a finite and precious resource essential for sustaining life, ensuring social welfare and economic prosperity and ecosystem health.

One of the major challenges facing the water sector in Egypt is to supplement limited water resources to meet the escalating demand for water which development in various economic sectors creates. Key challenges include reviewing high government subsidies to services in the water sector that may prove to be unsustainable. While access to drinking water is relatively widespread (97% of country) sanitation coverage heavily favors urban areas and covers only a small fraction of rural areas. The per capita availability of water has decreased over the past decades. Deterioration of water quality (due to salinity and pollution) and poor rural sanitation are also major challenges. Institutional coordination among water users and providers is weak.

Water resources

As a rough global indicator of water sufficiency, if the annual amount of water available per capita is less than 1000 m^3/cap/yr — water scarcity occurs. In Egypt this critical value was reached around 1997. With an expected population growth to 83 million in 2017, water availability will fall to 720 m^3/capita, which indicates a relatively high level of scarcity.

The conventional water resources in Egypt are limited to the Nile River, deep groundwater in the Delta, the Western Deserts and Sinai, rainfall and flash floods. The Nile is the main source of fresh water in Egypt. Presently, its volume relies on the available water stored in Lake Nasser to meet needs within Egypt's annual share of water, which is currently at 55.5 billion cubic meters (BCM) by an agreement signed with Sudan in 1959. Egypt receives about 98% of its fresh water resources from outside its international borders. The Nile is shared by nine other African countries and an estimated 460 million people depend on it. This figure is expected to double within the next 25 years, making an agreement on the sharing of water resources a sensitive matter.

Non-conventional water resources include agricultural drainage water, desalinised brackish groundwater and/or seawater, and treated municipal wastewater. The total amount of such indirect reuse is relatively low. Desalination of seawater as a source of water has been given low priority due, in part, to its high cost, but it is expected that desalination plants for drinking water and industrial use in areas, which has started, with the participation of the private sector, will continue to be developed as the demands on water grow by the year 2050. On the other hand, treated wastewater from Cairo and Alexandria is planned to irrigate 280 thousand feddans located around Cairo and the northern coast of Egypt to cultivate mainly timber trees and industrial crops.

Water supply and requirements

Water requirements are continuously increasing due to population increase and improving standards of living, as well as the governmental policy to reclaim more lands and encourage industrialization. Requirements of the agricultural sector represent the largest component of the total water demand in Egypt. Agriculture consumes more than 85% of Egypt's share of Nile water annually. Municipal and industrial requirements represent a smaller portion of Egypt's total water requirements. Water supply (and sanitation) is

managed by the Ministry of Housing, Utilities, and New Communities (MHUNC). The Ministry of Water Resources and Irrigation (MWRI) is responsible for ensuring water of an acceptable quality for the water treatments plants (Law 48/1982).

Municipal water requirements include water supply for major urban and rural villages. Municipal water demand is currently in the order of 4.5 BCM/yr. This figure is expected to increase significantly due to the high annual population growth rate (2.1%). The resulting total municipal demand for 2017 is projected to be 6.6 BCM/yr. Part of this water comes from the Nile system and part comes from groundwater resources. Approximately 97% of the total population relies on piped water supply. The major factor affecting the amount of water alloted for municipal use is the efficiency of the delivery networks, which is estimated to be at half its potential and even less so in some areas. Treating municipal water becomes more cost effective as the efficiency of the distribution networks increase.

Although Egypt has lost part of its fertile land to urbanization, attempts have been made to balance this by expansion of agricultural areas towards what are called 'New Lands', such as the reclamation project in the Toshka region. An important issue is whether the expansion of the New Lands comes at the expense of less water available for the 'Old Lands.' Studies show that productivity per crop is much lower on the New Lands, both in terms of yield (ton/feddan) and in terms of unit value (LE/feddan). However, the overall value of production per feddan is higher for the New Lands. This is because they favor the high value crops.[1]

Industrial water demands are not fully measured and metering of industrial water abstractions is either absent or not reliable. Some industries obtain part of their water needs from ground water wells as well as from the municipal water systems, while industries neighboring the Nile extract their water needs from there. The GOE has a policy to encourage the re-location of factories from the residential and cultivated areas to new industrial cities to protect water resources and the environment. It is concerned with the industrial pollution loads discharging into the Nile. Water quality in the Nile is determined by the minimum water quality required for the direct supply of water treatment plants or the indirect supply through primary canals. The health of the ecosystem also requires minimum diluting flow rates, and control over the disposal of pollution loads into the river.

Sources of pollution

Water quality degradation is a major issue in Egypt. The severity varies among different water bodies depending on flow, use pattern, population density, extent of industrialization, availability of safe sanitation systems and the social and economic conditions existing in the area of the water source. Discharge of untreated or partially treated industrial and domestic wastewater, leaching of pesticides and residues of fertilizers, and direct dumping of waste matter by river traffic are factors that affect quality.

Based on population studies and rates of water consumption, less than half the total wastewater flows generated by all governorates receives treatment. By 2017, an additional capacity of treatment plants equivalent to 1.7 BCM is targeted (NWRP 2002). Although the capacity increase is significant, it will not be sufficient to cope with the future increase in wastewater production from municipal sources and therefore the untreated loads that will reach water bodies are not expected to decline in the coming years.

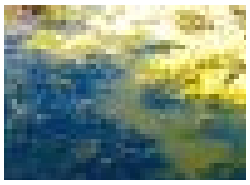
The water quality of the two Nile Delta branches and irrigation canals and drains in Lower Egypt deteriorates significantly northwards (possibly due to the disposal of municipal, industrial, and agricultural effluents) thus affecting the quality of water in the northern lakes, such as Lake Manzala. Polluted water is the reason for the decline in fish production and the disappearance of many fish species. Generally, fish production from the lakes along the Mediterranean coastal plain is estimated to be about 38% of total production. In addition, these lakes are losing their attraction as resorts because the water is not safe for recreational uses. These circumstances negatively affect the livelihoods of the population who live by and depend on the lakes.

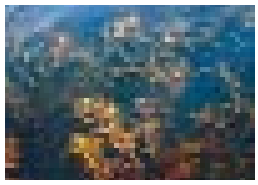
▼ **Less than half the total wastewater flows generated by all governorates receives treatment**

1. National Water Resources Plan for Egypt Inception Report. June 1999.

Box 9.1: Lake Manzala engineered wetland

The deteriorating water quality and reduction in fish stocks in Lake Manzala with the associated human and ecosystem health risks affect the livelihoods of the poor fishing community around the lake. A GEF-UNDP project is piloting an innovative low-cost method for cleaning polluted waters in the wetlands region of the lake by reducing the levels of municipal, industrial and agricultural pollutants flowing into the Mediterranean sea, and improving the overall water quality of the lake by using plants in specially constructed ponds to filter polluted water coming through a drainage system into the lake. The project also includes income-generating activities for the local fishing communities. Construction has been completed and the facility was inaugurated in 2002.





Source: Ahmed El Kholi, Bachround Paper EHDR 2005

The challenges

A brief listing of the predicaments to be faced and overcome indicates the nature of the many challenges in the water sector:

- *water conservation*. Water is a scarce resource. It is imperative to promote conservation practices at all usage levels. Water conservation practices need to be promoted through information campaigns;
- *valuing water*. Water from Egypt's perspective has economic, cultural, social, environmental and even religious values in society and cannot be considered as a purely economic good whereby it may be bought or sold as any other commodity;
- *costing water*. The costs of water infrastructure, water development, water treatment, operation and maintenance are huge and some sectors of society may not be able to share these costs. Both government and society must agree whether these costs should be fully or partially subsidized, while maintaining an appropriate level of equity (Box 9.2);
- *access to safe potable water*. According to a World Bank report (2002), the cost of diarrhea and mortality due, in large part, to water pollution was estimated at US$ 800 million per year. Poor populations are often the most affected group (see following section on sanitation). Potable water reaches about 97% of the population; however for 25% of the population the supply may be only for a few hours per day or even per week. In addition, there are appreciable variations in water quality;
- *industrial and municipal pollution*. The main constraint on Egypt's ability to manage wastewater disposal is related to lack of control on discharges from governmental utilities and industries. More effective coordination in priority setting is needed between the Ministry of Water Resources and Irrigation, responsible for canals and drains, and the Ministry of Housing, Utilities and New Urban Communities, responsible for municipal water supply and sanitary drainage to optimize return from investment in both sectors, and to achieve better environmental and health conditions;
- *lack of public awareness*. There is a strategic necessity to review traditional practices and to build awareness on water problems and issues. Information needs to become widely available on proven, low-cost and appropriate technologies, leak detection, water saving appliances, integration of the recycling of effluents in industrial processes, and efficient and modern irrigation and conservation techniques.

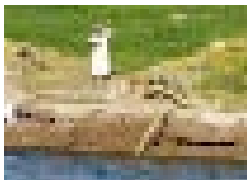
Prevailing and projected water supplies, demographic and ecological conditions suggest that the laws are in serious need of reconsideration

Enforcement of legislation

Effective water management must include a basic legal structure that provides relevant agencies and stakeholders with guidelines and instruments for planning and operational management and maintenance of the irrigation system, and the management of water quality. Law 12/1984, 'Concerning Irrigation and Drainage' was enacted to address these issues. This law was supplemented by Law 213/1994, which formalized the role of farmer participation in water management for most categories of land.

Prevailing and projected water supplies, and demographic and ecological conditions in Egypt suggest that the laws are in serious need of reconsideration. To provide an enabling environment for better water governance, a modified version of Law 12 for Irrigation and Drainage was

Box 9.2: Sharing the cost of water



Water pricing has never been an acceptable option by the majority of the population, whereas sharing costs, especially for new development projects, is more acceptable. Farmers have practiced the finance of operation and maintenance activities at the smallest level of the irrigation system and it has bee very successful. Financing and investing in water resources development by the private sector is also being encouraged.

• **Cost recovery in irrigation water.** Egypt has managed successfully to implement a cost-recovery mechanism in introducing tile drainage for more than 90% of irrigated agriculture areas. The Irrigation Improvement Project (IIP) is implemented on half a million feddans to increase water use efficiency. Such improvements put a heavy burden on government budget. As a result, different approaches for cost-recovery have been introduced to achieve equity through better allocation of water, and to make available and accessible the investment costs required for such improvements.

• **Cost recovery at the basic agricultural level.** Capital costs are recovered for meska (private tertiary canal) level investments at which the Irrigation Improvement Project is implemented. The approach requires repayment of full capital cost, excluding interest, over a period of 20 years. Pump costs are fully recovered during the initial 5 years. Assuming 4 percent inflation and 12% opportunity cost of capital, cost-recovery amounted to about 30 to 50%, depending on the recovery period, for costs for civil works. No costs are recovered for improvements above the meska level, which amount to about 25% of civil works expenditures. Thus, the subsidy on capital investments is 60-70%.

In newly reclaimed lands, farmers assume investment costs for all infrastructure including the pumps that draw water from the distributory canal, serving areas of about 100 to 250 feddans. Such investments may either be undertaken independently at the farmers' expense or by the government through cost recovery mechanisms.

Source: Khaled Abu Zeid, Background Paper EHDR 2005

drafted to provide the basis and the context and framework for operation by non-governmental entities including Water Boards. The modified law provides the possibility to delegate part of the management or to transfer complete management to Water Boards and Water Associations or to specialized private companies. Water Boards will be allowed to raise funds to cover operation and management and other service expenses including the cost of contracting services.

Law 48 prohibits discharges to the Nile, canals, drains, and groundwater without a license issued by the Ministry of Water Resources and Irrigation. Licenses are issued to factories, sanitary sewage treatment plants, and river boats, upon application, as long as the effluents meet certain standards and other conditions. The law gives MWRI administrative and police authority over implementation; the Ministry of Interior's Water Police also have police powers, and the Ministries of Health and Environment have a standard-setting and discharge-monitoring role.

Sanitation Law 93/1962 is concerned with the construction of sewers and sewage treatment facilities and sets the specifications governing the allowed discharge of residential, commercial, and industrial effluents to sewers. Ministerial Decree 9/1989 revised the standards set out in this law. Although originally intended to control discharges to surface waters, Law 48/1982 provides more details on this function than in Law 93/1962. The revised standards cover discharges of industrial waste to sewers and the application of treated sewage on clay and sandy soils. This law is implemented by the Ministry of Housing, Utilities and Urban Communities (MHUUC).

Despite the efforts undertaken to formulate and modify legislation, enforcement of the regulations remains seriously below the level required for effective impact. Amongst other benefits, enforcement would contribute to the conservation of water quality and water quantity. It would also help in regulating the utilization of scarcs groundwater resources.

▼
Despite efforts undertaken to formulate and modify legislation, enforcement remains below the level required

Linking up with the MDGs

Target 10 of the MDG 7 to ensure environmental sustainability is to halve, by 2015, the proportion of people without sustainable access to safe drinking water. A number of recommendations are presented to meet the MDG goal and target.

It is no coincidence that these recommendatios echo those proposed throughout this report:

- political will and leadership;
- shift in role of central government from implementation to facilitation;
- tripartite partnerships between government, community, and NGO/private sector;
- capacity building to equip local governments and communities to perform their new responsibilities;
- phased approach to improving service provision rather than all-or-nothing measures;
- targeting a total clean and safe living environment (both within households and the immediate neighborhood area);
- easy access to micro credit or micro finance for the target community as well as for local entrepreneurs to encourage community participation;
- harnessing the strengths of grassroots organizations.

Egypt has successfully met the WSSD water target of developing an integrated water resource management (IWRM) plan. Egypt's National Water Resources Management Plan represents a model in integrated planning, reflecting the roles and responsibilities of different water-related sectors. The plan looks at existing and future challenges, available water resources, and at the means and ways for facing these challenges, achieving national development goals, and meeting expected water requirements.

▼ NWRP relies on a multi-stakeholder approach that includes all water-related ministries, users, NGOs, academics, and the private sector

The National Water Resources Management Plan

The Water Resources Management Vision for Egypt in 2015 is based on recently developed National Water Resources Plan (NWRP), 'Water for the Future.' This used a multi-stakeholder approach, led by the Ministry of Water Resources and Irrigation. Stakeholders include all water-related ministries, users, NGOs, academics, and the private sector.

The plan considers Egypt's water-related national development objectives (1997-2017) as part of a package that aims at increasing economic growth to 7.6% for the period 2003-2017, increased per-capita GDP to $4,100 in 2017, increasing inhabited areas from 5.5% to 25% by 2017, expanding agriculture development by 3.4 million feddans by 2017, protecting the Nile and water resources from pollution, promoting integrated pest control and limiting the use of agro-chemicals, extending coverage by sewage networks and wastewater treatment plants, and promoting water conservation in domestic, agriculture and industry uses. It is a huge and ambitious undertaking drawing on multiple synergies and an integrated vision that relies on coordination and cooperation from all related sectors.

1. *Policy objectives:*

- support the socio-economic development of Egypt on the basis of sustainable management of water resources while protecting the natural environment;
- supply drinking water and provision of sanitation services according to standards and targets on a cost-recovery basis while ensuring the right to basic requirements to all people:
- supply water for industrial purposes and provision of sewage treatment facilities on a cost-recovery basis;
- supply water for irrigation on a participatory approach and cost recovery basis;
- protect the water system from pollution, based on a 'polluter-pays' principle and the rehabilitation of water systems, particularly in the ecologically important areas.

2. *Strategic thrusts:*

- development of new water resources and cooperation with the Nile Basin riparian-countries;
- making better use of the available water resources;
- protection of public health and the environment;
- appropriate institutional, legal and financial support measures.

3. *Expected results:*

- cultivated area increased by 35%;
- increasing inhabited area to accommodate more than 20% of the population;
- safe drinking water available to 100% of the population;

Box 9.3: Estimated financial outlay for water plan

Investment costs (in mil LE)		Recurrent costs (in mil LE)		Share in costs	
• *developing additional resources*		• *developing additional resources*		• *share in investment costs: LE 145 bil*	
Nile water	2,533	Nile water	237	Ministry of Housing	62%
Groundwater	4,331	Groundwater	1,738	Ministry of Water Resources and Irrigation	32%
Rainfall and flash flood harvesting	631	Rainfall and flash flood harvesting	75	Private sector	5%
Desalination	800	Desalination	282	Ministry of Agriculture, Ministry of Industry, Ministry of Health, Ministry of Local Development, and Egyptian Environmental Affairs Agency	1%
Total	8,274	Total	2,331		
• *making better use of existing resources*		• *making better use of existing resources*			
Horizontal expansion	7,750	Horizontal expansion	644	• *share in recurrent costs: LE 41 bil*	
Irrigation improvement	6,700	Irrigation efficiency	2,682	Municipalities	70%
Irrigation efficiency	3,496	Reuse of drainage water	1,331	Ministry of Water Resources and Irrigation	12%
Reuse of drainage water	3,998	Water allocation and distribution	850	Private Sector	15%
Water allocation and distribution	18,185	Municipal and industrial water quantity	2,104	Ministry of Agriculture, Ministry of Health, and Egyptian Environmental Affairs Agency	3%
Municipal and industrial water quantity	367	Navigation	64		
Aquaculture	1	Research	16		
Research	1,042	Total	7,691		
Total	41,512				
• *protection of public health and environment*		• *protection of public health and environment*			
Prevention	939	Prevention	53		
Treatment – wastewater	53,897	Treatment – wastewater	14,289		
Drinking water	39,748	Drinking water	16,292		
Control	161	Control	13		
Institutional actions: water quality and public health	195	Institutional actions: water quality and public health	3		
Total	94,940	Total	30,650		
• *general institutional, legal and financial measures*		• *general institutional, legal and financial measures*			
Total	245	Total	71		

Note: The implementation of the National Water Resources Plan is a multi-disciplinary responsibility and this is reflected by the estimated share in investment and recurrent costs among the concerned ministries and economic sectors as shown above

Source: NWRP 2004

- a National Water Council (established in 2005);
- GDP increase from LE 246 billion (1997) to LE 789 billion;
- employment in agriculture increase from 5 to 7.30 mil./person/year and in industry from 2.18 to 5 mil./person/year;
- overall water use efficiency increase from 70% to 77%;
- outflow to sinks decrease from 16.3 to 12.5 BCM/year;
- unaccounted losses in the potable water supply sector decrease from 34% to 25%.

Successful implementation of the proposed vision will be influenced by several external parameters including availability of financial resources, adoption of the required change in behavior, community participation and willingness to pay, increased sense of social responsibility from the private sector and industries, and efficient law enforcement. Two alternative scenarios are compared in Table 9.1.

Table 9.1: Two scenarios for water management

	Business as Usual	Proposed NWRP Vision
Gross agriculture production value	35.80 bil	38.50 bil
Crop intensity	1.50	1.7
Net value production per feddan	2,075 LE/fed	2,153 LE/fed
Export/import value	0.12	0.20
Navigation bottlenecks	144	0
Employment in agriculture	6.24 mil. persons/year	7.3 mil. persons/year
Outflow to sinks	17.6 BCM	12.5 BCM
Overall Nile water use efficiency	67%	77%
Agriculture supply/demand ratio	0.8	0.92
Ag. water availability	3,285 m^3/fed/year	3,866 m^3/fed/year
UFW losses	34%	25%
Potable supply/demand ratio	0.76	1.0
E-coli standard violation	121	110
Condition in bardawil	(-)	(+)
Condition in coastal lakes	(-)	(0)

Source: Khaled Alou Zeid 2005 (Ibid) and NWHP(2004)

Costing it out

Implementing the proposed vision based on the National Water Resources Management Plan is estimated at LE144,971 (NWRP 2004) divided among the four policy and sub-areas of actions as in Box 9.3. Recurrent costs are included, estimated at LE 40,743, as is the share between ministries, estimated at LE 145 billion.

Box 9.4: Education, health and sanitation goals are mutually reinforcing

Poor hygiene practices that accompany poor sanitation and inadequate supplies of water are commonly associated with repeated attacks of diarrhea and parasitic infestations, especially among infants and children. Improving water supply reduces diarrhea morbidity by 21% and improving sanitation by 37.5%. Nationally, approximately 19% of pre-school under-fives are stunted and one in three of children under five years are anemic (UNICEF 2002).

Available data details the strong association between health and nutrition in the school performance of children. Increased absenteeism at school, lowered cognitive capacity, and reduced scholastic achievement were found to be commonly associated with parasitic infestation, inadequate intakes of important nutrients and a history of repeated diarrhea. Improvements in community water supply, sanitation and hygiene practices have a mutually reinforcing relationship with improved school attendance and improved scholastic achievements. Better sanitation facilities in schools encourage higher attendance, especially of girls; and the improved hygiene behavior and knowledge of school children has a lasting impact on hygiene practices in their homes and communities.

The MDGs that shape the current global development agenda are exceptional opportunities to introduce innovative health policies and can use improved sanitation and hygiene as an entry point. Such a strategic approach would aim at altering patterns of inequality in society with programs that seek to protect disadvantaged populations against specific forms of exposure and vulnerability linked to their lower socio-economic status. The community based Family Health Program and the Health Reform Plan (2003) can adopt and further develop such an approach at the primary care level. Policies that address the social determinants of health will give substance to the argument, promoted by the Minister of Health and Population (MOHP), that health together with education form the two components that are basic to the achievement of sustainable human development, health being taken in its broader sense of complete physical and social well-being.

Source: Habiba Wassef, Background Paper EHDR 2005

Applying patchwork remedies to pressing problems and ignoring system problems has led to a dangerous public health hazard

To ensure the successful implementation of the water vision, it is proposed to set national goals and targets in line with the MDGs and associated targets and use national indicators and targets for water as a tool for monitoring progress:

goal 1: develop additional water resources

- per-capita water share indicator and target;

goal 2: make better use of existing water resources

- irrigation and drainage improvement and efficiency indicator and target;
- irrigation expansion indicator and target;
- agriculture drainage reuse indicatorand target;
- wastewater recycling and reuse indicator and target;

goal 3: protect health and the environment

- access to safe drinking water services indicator and target;
- access to proper sanitation services indicator and target;
- wastewater treatment coverage indicator and target;
- declared non-polluted waterways indicator and target.

goal 4: legal and financial sustainability

- integrated water resources management plan indicator and target;
- water users associations and water boards indicator and target;
- cost recovery indicator and target;
- law enforcement indicator and target.

An additional exercise is needed to set quantitative targets for the proposed indicators. This exercise should also be done in a multi-disciplinary approach where the relevant ministries are involved together with representatives from the different water user sectors.

2. Sanitation: The Silent Emergency

Sanitation, together with the potable water supply, are considered the most important determinants of public health. The prevailing attitude of applying ad hoc patchwork remedies to pressing problems and ignoring systemic problems has led to progressive deterioration in sanitation and unsafe water quality and manifestations of a dangerous public health hazard that is reaching crisis levels in some localities.

The situation is called an emergency because of the resultant multiplication of environmental risks and hazards to which Egyptians are exposed to in their daily life, especially children, and the often irreversible degradation of the environment and our natural resources that is progressing at a rate that will soon surpass remedial action. The conse-

Box 9.5: Water, sanitation and the MDGs

MDG Goals	Contribution of improved drinking water and sanitation
Goal 1 *Eradicate extreme poverty and hunger*	• the security of household livelihoods rests on the health of its members; adults who are ill themselves or who must care for sick children are less productive; • illnesses caused by unsafe drinking water and inadequate sanitation generate high health costs relative to income for the poor; • healthy people are better able to absorb nutrients in food than those suffering from water-related diseases, particularly helminthes, which rob their hosts of calories; • the time lost because of long-distance water collection and poor health contributes to poverty and reduced food security;
Goal 2 *Achieve universal primary education*	• improved health and reduced water carrying burdens improve school attendance, especially among girls; • having separate sanitation facilities for girls and boys in school increases the girls attendance, especially after they enter adolescence.
Goal 3 *Promote gender equality*	• reduced time, health and care-giving burdens from improved water services give women more time for productive endeavors, adult education and leisure; • water sources and sanitation facilities closer to the home put women and girls at less risk of assault while collecting water or searching for privacy.
Goal 4 *Reduce child mortality*	• improved sanitation and drinking water sources reduce infant and child morbidity and mortality.
Goal 5 *Improve maternal health*	• accessible sources of water reduce labor burdens and health problems resulting from water portage, reducing maternal mortality risks.
Goal 6 *Combat HIV/AIDS, malaria and other diseases*	• safe drinking water and basic sanitation are needed in health care facilities to ensure basic hygiene practice following delivery. • safe drinking water and basic sanitation help prevent water-related diseases, including diarrheal diseases, schistosomiasis, filariasis, trachoma and helminthes; • the reliability of drinking water supplies and improved water management in human settlement areas reduce the transmission risks of malaria and dengue fever.
Goal 7 *Ensure environmental sustainability*	• adequate treatment and disposal of wastewater contributes to better ecosystem conservation and less pressure on scarce freshwater resources. Careful use of water resources prevents contamination of groundwater and helps minimize the cost of water treatment.
Goal 8 *Develop a global partnership for development*	• development agendas and partnerships should recognize the fundamental role that safe drinking water and basic sanitation play in economic and social development.

Source: Habiba Wassef, Background Paper, EHDR 2005

quences of the failure to adequately tackle this problem are the reduced prospects for the millions of Egyptians locked in the cycle of poverty and disease. The seriousness of the matter lies in the medium and long term impact on the formation of Egypt's human capital: its children.

The combined factors of poverty and poor child care practices, repeated diarrheas and malnutrition have been demonstrated to have an impact on the development of the brain and the nervous system. The results of studies on the psychosocial development of children and their cognitive aptitudes undertaken over the past decade have shown the resultant impairment in cognitive powers and scholastic achievements of the affected children, with rural children living in poverty being more affected

.

This slow and silent erosion of Egypt's new generations, regarded as the country's human capital, seriously undermines the national strategy of investing in education and taking advantage of our human resources in the highly competitive world of the 21st century. There is an urgent need to take these findings into consideration in calculations of the human, social and economic cost of poverty in Egypt.

Sanitation in the MDGs

The combination of safe drinking water and hygienic sanitation facilities is a precondition for

▼
The combination of safe drinking water and hygienic sanitation facilities is a precondition for health

Box 9.6: Revising the definition of access to sanitation

The critical components of what sanitation services should aim for: privacy, dignity, cleanliness and a healthy environment are not easy to measure. In classifying the sanitation facilities as 'improved' and 'unimproved,' the WHO and UNICEF Joint Monitoring Program for Drinking Water and Sanitation (JMP) makes the assumption that the 'improved' are likely to be more sanitary than the 'unimproved'. The primary indicator for monitoring progress in access to improved sanitary facilities is the 'use' of the facilities. Current coverage estimates from JMP are therefore expressed as the percentage of the population using improved sanitation facilities.

Target 10 of the Millennium Development Goals is to halve, by 2015, the proportion of people without sustainable access to safe drinking water and sanitation.

The baseline for measuring progress. This is the estimated sanitation coverage in 1990, when 46% of the 55.7 million population were deemed to have no access to sanitation, will need to reduce that level to 23% of the much higher 2015 population. The figures used as the baseline to monitor progress towards the MDGs are produced by the JMP.

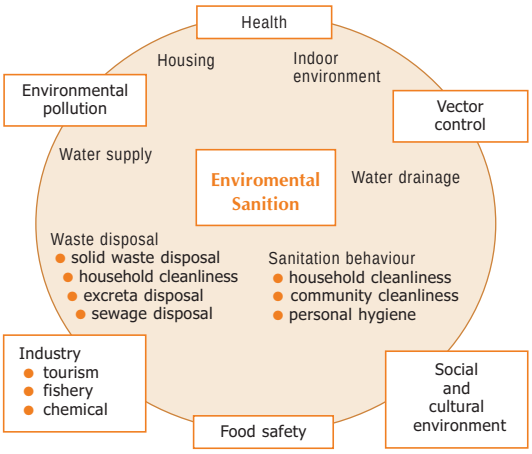
Definitions of sanitation indicators. Access to sanitary means of excreta disposal is estimated by the percentage of the population using improved sanitation facilities. Improved sanitation facilities are those more likely to ensure privacy and hygienic use

Improved sanitation facilities	**Unimproved sanitation facilities**
• connection to a public sewer system;	
• connection to a septic system;	• public or shared latrines;
• flush or pour-flush latrines;	• open pit latrine;
• pit latrine with slab;	• bucket latrine;
• ventilated improved pit latrine;	• no facilities (people use any open area).
• composting toilet.	

Source: 'Meeting the MDG Drinking Water and Sanitation Target' A Mid Term Assessment of Progress. WHO/UNICEF 2004. and "WATER FOR LIFE – making it happen". WHO/UNICEF 2005

▼ Three aspects make up safe sanitation: the behavioural, the structural, and the technical

Figure 9.1: Environmental sanitation linkages



Source: World Health Organization

health. The toll of missing the sanitation target could be prevented by closing the gap between urban and rural populations and by providing simple hygiene education. The lessons learnt from the experience of countries with limited incomes shows that rapid progress is indeed possible even in the face of demographic pressure and economic stagnation. Cost benefit analysis undertaken by the World Bank to evaluate the full social costs of water quality deterioration and wastewater disposal in Egypt with particular emphasis on rural water and sanitation have shown that poor water quality affects both people's health and land productivity with damage costs reaching LE 5.35 billion in 2003 or 1.8% of GDP. If no actions are taken to improve water quality parameters, damage costs could increase to LE 9.5 billion/yr or 3.2% of GDP.

Sanitation: A sector that is not a sector

The term sanitation, like that of nutrition designates both an outcome — good nutrition and safe sanitation — and the process for achieving the outcome. Sanitation is defined as the process of separation of human excreta and other waste products from contact with man and the environment through hygienic collection methods and safe management practices.

The three aspects that together make up 'safe' sanitation, namely the behavioral, the structural, and the technical (see EHDR 2004) figure — in part or in whole — in the mandates of more than one ministry since sanitation does not encompass solely the management of human excreta and wastewater but also covers other wastes, including safe management of hazardous wastes.

The wide range of elements that make up sanitation means that the success of sanitation improvement programs depends on a comprehensive approach that addresses all three components in parallel.

Household surveys and census data have been the main sources of information used by the WHO and UNICEF Joint Monitoring Program for Drinking Water and Sanitation (JMP) responsible for tracking progress on global water and sanitation goals since 1990. The data is therefore based on multiple sources that include the UNICEF-supported Multiple Indicator Cluster Surveys, the US AID-supported Demographic and Health Surveys, the World Bank's Living Standard Measurement Surveys and, more recently, the WHO's World Health Surveys.

A rigorous review process, based on a set of objective criteria ensures that only reliable data are included in the data base. Since 2000, more reliance was placed on user-based information obtained through household surveys, than on provider-based information from service providers such as utilities and ministries. The latter do not include facilities built by the householders themselves, such as private wells. Governments are invited to harmonize their working definitions of improved water supply and sanitation so as to enable comparisons between countries and within the same country over time, as well as to ensure that all facilities are accounted for.

The institutional framework

In 2004 the autonomous Holding Company for Drinking Water and Sanitation and its affiliated companies was established to include the General Economic Authorities for Drinking Water and Sanitation operating in the governorates. While the Holding Company is under the authority of the MHUNC the latter is not the sole provider of sanitation services on a national scale since it is only concerned with public sewerage systems; its activities do not cover the provision of stand-alone technologies for individual households in the rural areas. Furthermore, it does not make of sanitation a 'sector' that is under the tutelage of the Ministry of Housing. Villages that benefit from connection to a public sewage collection network are those that lie within reach of the perimeter of an existing system serving an urban population, and when the capacity of the system can accept the additional volume of wastewater and sewage produced by the village. The limitations of the sanitation services of the Holding Company is not well grasped by the rural communities which come under the responsibility of the local government.

It is expected that the newly formulated Urban Planning Law that will be submitted for discussion by the People's Assembly in the Fall of 2005 will help clarify matters. It will completely revise the designations of villages and towns or urban centres in the rural governorates — and several of the densely populated old villages may now have the right to benefit from public sewerage systems provided by the MHUNC.

It is the multiplicity of sanitation terminology, in addition to the actual fragmentation of the responsibility for the different aspects or phases of the sanitation services and process that give rise to ambiguity. The shared tasks can be well defined as is the case for some of the health sector tasks, or there may be considerable

Table 9.2: Estimates of access to sanitation in Egypt (% population)

Year and source	Sanitation coverage						Total (%)
	Modern flush toilet		Traditional with tank/bucket		Access to all types		
	Urban	Rural	Urban	Rural	Urban	Rural	
1989 DHS	36.4	2.1	56.7	60.6			
1992 DHS	46.3	5.7	48.4	51.7			
1995 DHS	50.4	6.2	48.6	64.7			
1996 Census	48.1[1]	10.3[1]	39.2[2]	79.0[2]			
1999 WHO	48.1[3]	9.7[3]	39.2[4]	74.2[4]			
2000 DHS	59.2	7.8	40.0	81.8			
2001 WHO-UISEF					100	95.0	..
2001 EHDR-2004*						78.2	93.6
1990 JMP*					70	42.0	54.0
2002 JMP					84	56.0	68.0

* The JMP (WHO-UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2004 figures and the Egypt Human Development Report (EHDR-2004) figures were added by the author

1. Households with public sewer connection
2. Private sewer connections, septic tank, shared latrine
3. Households connected to conventional sewers
4. Population without household connection but served with adequate, private or shared on-site system

Source: Table is compiled from several sources: The Egyptian Demographic and Health Survey (DHS), the 1996 National Census, and the WHO Global Water Supply and Sanitation Assessment 2000, (cited in 'Water and Health in Egypt: an Empirical Analysis' by Hala Abou-Ali, 2003, Göteborg University)

▼ **Reallocation of resources depends upon attitude change of the politicians and decision makers**

Box 9.7: Public investment gaps at the expense of the poor

Investment for the period covering the past four five year plans in the area of water supply and sanitation show significantly higher per capita investment levels for services directed to urban populations:

- **rural vs. urban areas 1982 to 2002**

Invest/capita	1996	2003
Rural water	39	48
Rural waste water	81	133
Urban water	412	435
Urban waste water	619	767

- **best urban vs. worst rural 1982 to 2002**

Invest/capita (LE)	waste w urban	water urban
Ismailia (340,000 pop.)	2297	922
Damietta (251,000 pop.)	1957	729
Invest/capita (LE)	waste w rural	water rural
Assiut (2,038,000 pop.)	10	3
Suhag (2,438,000 pop.)	16	2

The per capita urban investment is nearly nine times the per capita rural investment in the 1982-2002 period, and nearly seven times the 2002-2007 rural per capita investment. For 1982-2002, there is a large variation in the data: Urban Ismailia received LE 922 for water and LE 2,297 for their wastewater system for each citizen from governmental funds (50%) and foreign contribution (50%). In contrast, people in Assiut and Suhag received during the same period LE 10 and LE 3 and LE 16, and LE 2 per capita respectively.

- **period 2002-2007 in selected areas**

Invest/capita (LE)	waste w urban	water urban
Kafr El-Sheikh	1425	691
Menoufia	1243	734
Invest/capita (LE)	Waste w rural	water rural
Menia	23	37
Qena and Luxor	33	41

Source: UNICEF (2005) Common Country Assessment Report

overlap between more than one of the ministries as, for example, in the area of water quality control and management, although the norms set by the MOHP are applied by all.

There is almost no sewerage in rural areas although rural population densities and sizes are high

The strong behavioral component is not always given due consideration. This component makes of the community, families and individuals important partners, contributing to the success or failure of sanitation improvement programs. Furthermore, if sanitation outcome is affected by human behaviour and practices it cannot be included in the group of public goods and services as is the case with water supply and electricity.

The World Bank, one of the largest donors for water supply and sanitation, recognizes the need for improved at-scale hygiene promotion to change people's behavior. Raising awareness and engendering sustained political commitment that becomes translated into allocation of resources is a process of attitude change for the politicians and decision makers. In the presence of improved sanitation facilities, changing people's hygiene behavior is as important as ensuring the safety of the sanitation facility. Getting people to wash their hands with soap at the right times was found to reduce diarrheal infection by at least half. Another important behavior change is to eradicate the belief that the feces of young babies and children are not dirty. This can significantly reduce diarrheal disease within the family and in the community.

Getting the figures straight

There is some considerable variation in the figures reported by different sources for sanitation coverage in Egypt. The national figures that appear in the periodic DHS do not provide enough detail to allow for a serious start towards improvement. A priority concern is a unified figure for sanitation coverage. Prior agreement on what is meant by safe sanitation, as stated in the MDG is needed to become the reference definition for all partners, to achieve cost-effective targets. The WHO-UNICEF Joint Monitoring Program (JMP) has since 2002 revised the list of safe sanitation facilities. The proposed list is now made of 5 categories, namely:

- public sewer connected;
- small-bore sewer connected;
- septic tank;
- pour-flush toilet;
- VIP latrine.

Once the definitions and types are agreed, we can start to quantify the gap so as to be able to monitor and measure progress towards achieving the set target; keeping in mind that it is not enough to report on the number of facilities, but to also

Table 9.3: Percentage distribution of household by sanitation facility, 2003

	Type of place of residence		Region							
	Urban	Rural	Urban Governor.	Lower Egypt	Lower Egypt Urban	Lower Egypt Rural	Upper Egypt	Upper Egypt Urban	Upper Egypt Rural	Total
Type of toilet facility										
Modern flush toilet	67.8	13.0	80.2	32.5	62.0	17.2	23.8	52.0	7.7	40.4
Traditional with tank flush	1.0	2.0	0.5	2.3	1.5	2.7	1.2	1.6	1.0	1.5
Traditional with bucket	30.5	78.9	19.3	63.7	36.0	77.9	67.2	44.6	80.1	54.7
Pit toilet/latrine	0.4	3.5	0.1	1.1	0.2	1.5	4.2	1.2	5.9	1.9
No facility/bush	0.2	2.7	0.0	0.5	0.3	0.6	3.6	0.6	5.3	1.5
Total										
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,047.0	5,042.0	2,319.0	4,259.0	1,451.0	2,808.0	3,511.0	1,278.0	2,233.0	10,089.0
Where does this facility drain										
Public sewer	84.6	21.7	96.6	53.8	90.0	35.1	23.7	56.4	4.1	53.6
Vault (*bayara*)	8.2	25.1	1.9	6.2	0.9	9.0	39.4	27.8	46.3	16.5
Septic system	6.9	48.9	1.4	37.7	8.7	52.8	32.8	14.7	43.7	27.6
Pipe connected to canal	0.2	1.5	0.1	1.6	0.4	2.3	0.3	0.1	0.4	0.8
Pipe connected to groundwater	0.1	0.2	0.0	0.2	0.0	0.3	0.2	0.3	0.2	0.2
Emptied (no connection)	0.2	2.5	0.0	0.4	0.1	0.5	3.5	0.7	5.2	1.3
Other	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0
Total										
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number total	5,036.0	4,907.0	2,319.0	4,238.0	1,447.0	2,791.0	3,386.0	1,270.0	2,116.0	9,942.0

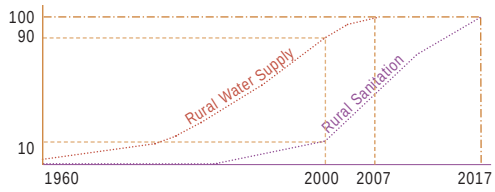
Source: Egypt Interim Demographic and Health Report 2003

provide information on its access and associated hygiene practices. A valuable support to achieving this task can be provided by the sanitary technician who is a member of the primary health care team. One of his traditional tasks is the monitoring of the state and efficiency of the sanitation facilities in each household, in particular in rural areas. Access to sanitation facilities is as important as reporting on their numbers. The currently available data does not tell us what people have access to a sanitation facility. Current approaches that focus on counting latrines that were ever built are not enough. Assessing access needs to cover, the numbers, the full range of latrine types in use, complemented with an assessment of how many will remain in use in 2015 (based on evidence of maintenance and repair).

Information that needs to be completed at the local level on levels of access and the degree of proper use, include:

- identification of pockets of exclusion within the household, the community or nationally;
- prevalence and robustness of key hygienic behavior;
- identification of proxy indicators of outcome (health, economic, educational impact).

Figure 9.2: Rural/peri-urban sanitation lags for water supply (%)



Source: World Bank 2005, Public Expenditure Review, ARE Country Environmental Analysis

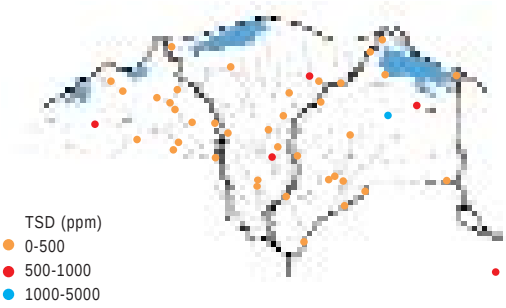
The JMP responsible for monitoring progress achieved across the world in accessibility to drinking water and improved sanitation has called for the harmonization of the methods used in the collection of sanitation related data (see Box 9.6).

The plight of rural sanitation

The priority of the Sanitation Authority during the latter half of the 20th century focused on completing the coverage for the populations living in the major urban centers — which make up more than half of the population of Egypt. Little attention was given to the rural populations. There is almost no sewerage in the rural areas although the rural population densities and sizes are high.

▼ **Widespread emissions of untreated discharges is common in the Delta where drainage water is mixed with canal and Nile water for reuse purposes**

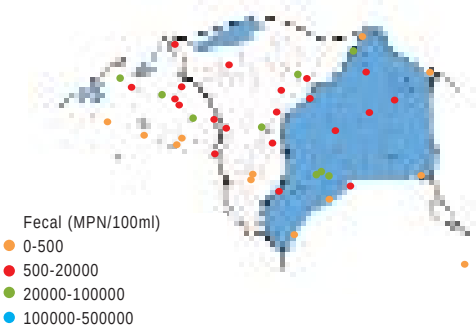
Figure 9.3: Spatial presentation for total dissolved solids



Note: High values above the 1000 mg/l limit, more evident in the north and in the eastern Delta, are an indicator of salt concentrations.

Source: ARE Country Environmental Analysis (2005)

Figure 9.4: Spatial presentation for fecal bacteria counts



Note: The accepted value of 5000 per 100 ml. (Mean Probable Number -MPN) of fecal coliform bacteria is the standard set out in Law 48/1982.

Source: ARE Country Environmental Analysis (2005)

▼ An estimated 20% of yearly child mortality can be attributed to diarrhea diseases caused by poor sanitation facilities and practices

Benefiting from less financially important rural development programs and from geographically limited small projects financed by the international community, the progress made in sanitation coverage has been surpassed by the rapid population increase and changes in the demographic profile of communities. At present, the sanitation and wastewater collection and treatment in secondary cities and rural areas lags far behind drinking water supply as shown in Figure 9.2. The persistent low figures for sanitation coverage in rural areas (Table 9.3 with figures from IEDHS 2003) which are more pronounced in the governorates of the South, have made raw sewage the most critical source of pollution, especially in the rural areas of the Nile Delta.

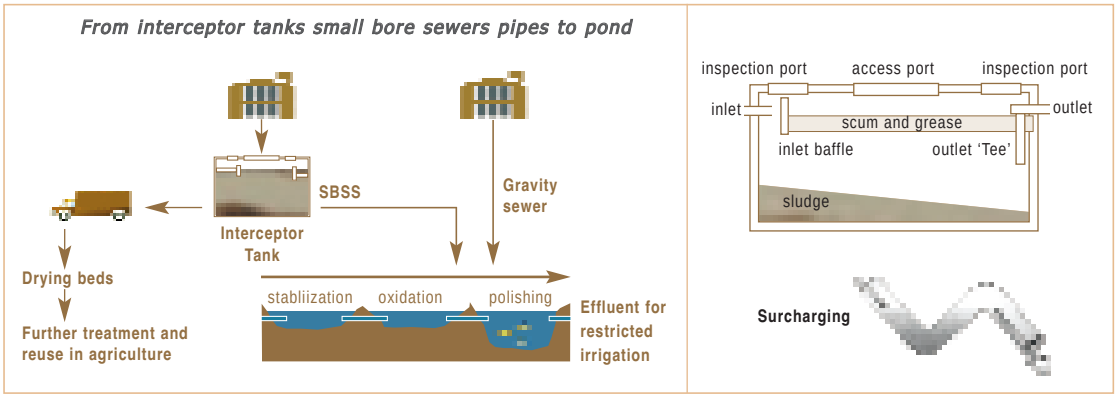
As mentioned earlier in this report, most waterways receive raw sewage either directly from housing units and sewage/sludge emptying trucks, or indirectly through agricultural drains loaded with semi-treated/untreated wastewater. Piped sewage is a point-source pollution to the Nile, drainage water, lakes, and groundwater. Twenty percent of urban and 92% of rural sewages are not covered by sewerage.

This widespread emission of untreated discharges is common in the Delta, where drainage water is mixed with canal and Nile water for reuse purposes as per the mixing standards provided by Law 48/1982. Biological pollution in agricultural drains has reached levels that impede implementation of the drainage-reuse expansion policy. The repeated reuse of drainage water raises salinity to 3,000 mg/l or higher in the drains bordering the northern lakes. Water salinity originates and builds up all over the Delta old lands where fertilizers and soil residues are leached out in the absence of well-functioning drainage systems. The annual volume of agricultural drainage discharging back to the Nile system is estimated at 6000 MCM (World Bank 2005), containing dissolved salts washed from agricultural lands a welll as residues of pesticides and fertilizers.

An additional source of salinity is the shallow groundwater interfering with surface drainage water. Moreover, surface and ground waters exhibit toxicity from agro-chemicals and excessive fertilization. The sewage from cities/villages, industrial effluents discharging into the river Nile, the canals or the drains (especially from large industries), the agricultural discharges to the Nile (containing pesticide/fertilizer residues and salts leach out from lands), municipal wastes from village and secondary cities disposed into adjacent waterways, and disposals from inland navigation represent the main sources of pollution of waterways and the causes for degradation of the water quality in Egypt.

Industrial wastewater has potentially been the second crucial source of Nile-system water pollution. Much progress has been achieved since the

Figure 9.5: One simple type of latrine technology



Note: Application is appropriate for rural Egypt, even on rocky ground or with high GW-table. For existing ponds grey water without sediments can be easily conducted through small bore pipes, creating economies by avoiding conventional big costly sewer pipes. Operation and Maintenance (O&M) will need only to maintain interceptor tanks and re-use facilities for sludge.
Source: Reinhard Honert, from Lucía Hernández Leal TUHH / GTZ-ecosan 2004].

River Nile was declared a protected zone especially against industrial effluents and a serious campaign was undertaken by MSEA and MWRI to prevent their untreated discharges into these water bodies in compliance with Law 48. However, a few industrial complexes are still not in compliance with some of the effluent standards set by the law. As firms redirect their effluents to public sewers, municipal wastewater treatment plants (WWTPs) become overloaded and their efficiency is compromised. Some industries diverted their effluents to adjacent agricultural drains, seriously degrading their water quality, and rendering it unusable. Better industrial waste management systems are now being integrated in the design of the production units in new industrial zones.

The relation of the important increase in the various pollutants and in the salinity of the water to the rapidly increasing incidence of renal failure — reported to have increased from 10 cases per million in 1974 to 225 per million in 2004 — is currently under investigation by the Medical Research Division of the National Research Center at the request of the Ministry of Health and Population. An estimated 20% of the overall yearly child mortality for children under the age of 5, especially in rural areas, can be attributed to diarrheal diseases caused by poor sanitation facilities and practices (see Chapter Four). The gravity of the situation is compounded by the impaired quality of life of the surviving children.

Low-cost appropriate technology

The GOE, with the assistance of international donors, has invested in a number of pilot operations for rural water and sanitation. Economies of scale make conventional wastewater collection and treatment cost prohibitive in small rural communities. Several alternatives that vary in efficiency and cost have been piloted in Egypt, but not one method or technology can be applied due to the wide variations in the geophysical and hydrological characteristics of the different geographic locations in Egypt. The most disadvantaged are those governorates located in the Nile Delta where the underground water table is high. This is further complicated by the absence of a desert backing for the governorates situated in the center of the Delta.

A number of techniques and approaches are being implemented to treat and purify drainage waters. However, no commitment for a campaign or program was launched on a national scale to improve sanitation coverage in for the segments of the population not benefiting from improved sanitation facilities. Low-cost and unconventional technologies that are being piloted in Egypt's rural areas, include the application of biogas technology, the Gravel Bed Hydroponics (GBH) system, and bioremediation. Scaling up of these projects and their replication in a non-pilot mode will produce a cost estimate that is expected to be much lower than the costs of a pilot project. The more realistic costs would be those of the

▼ What is needed for low-cost sanitation is an evaluation of different technologies and selection based on ease of application

sanitation projects financed by the Social Development Fund (SDF) and the Organization for the Development of the Egyptian Village (ORDEV-Shorouk Program) as they do not include the cost of expatriate personnel.

▼ Integrating environmental policies within economic policies under a national sustainable policy guarantees that environmental considerations are taken into account

It is not possible at this point in time to decide on the most appropriate low-cost technology that can be adopted for use in a national program for achieving the Millennium Target 10, of halving the number of people that have no access to improved sanitation facilities. What is first needed is an evaluation of all the different technologies used in all projects and initiatives all over the country. Now is the time to take stock and make a triage on the basis of agreed upon essential features — such as acceptance by the citizens, sustainability of the service, durability (solid construction, maintenance and repair), as well as affordability among others. Performance of those technologies selected can be further improved to accommodate any deficiencies or comments made by the users or the managers, as well as modifications dictated by local and regional differences. Community-targeted awareness and technical-backstopping programs are needed where such technologies are to be scaled up.

Where do the finances come from?

Sanitation services are until now heavily subsidized by the government, and the high cost of sewerage systems makes it an expense that is not cost effective for application in rural communities. Innovative sources of financing will need to be considered if the sanitation target is to be achieved for the rural populations outside the urban centers of the governorates — which are covered by the mandate of the Drinking Water and Sanitation Authority of the Holding Company of the MHUNC. For these populations, it is not public sewerage systems but stand-alone or communal technologies that are likely to be applied.

A long term vision and plan for progressive national coverage is needed, and for which the appropriate resources have to be calculated and allocated. Sustainable inputs need to be earmarked by the GOE, alongside the contribution of external funding agencies. It is the government contributions that can accelerate implementation of a systemic approach to the sanitation and hygiene problems in the Egypt. Investments and cost sharing by all the stakeholders, including the users, will have to be worked out at the local level by each governorate and will build around funds, investments and contributions that are already programmed and forthcoming from a number of stakeholders. Application of cost sharing principles by the users has proved successful in some of the pilot projects and people were found to be ready to contribute with their own resources to building sanitation facilities. Micro-credit schemes and credit facilities can facilitate payment of the family's contribution.Targeted subsidies to households with limited resources may be considered for low income families. Sanitation related activities in a rural community can generate incomes and create livelihoods. Private enterprise and local contractors can become actively involved under the supervision of the local authorities.

It is important to separate the heavily subsidized municipal water and wastewater services that are directed towards urban populations from the cost of reducing the gap of rural sanitation and realizing Target 10 of the MDGs. The budget for the latter will need to be calculated separately, as the technologies are different, as is their cost. The capital investment costs are less important and cost sharing by the community promises to become an important feature.

A new era for sanitation?

There is a palpable mobilization on a national scale for realizing Egypt's commitment to sustainable development. As mentioned earlier in this chapter, an important milestone has been reached by the formulation of the Integrated Water Resource Management Plan and the National Environment Action Plan. The strategic analyses made by various experts and partners in related domains are proof of realistic and objective appreciation of the problems and of the available solutions.

A key element is to work towards integrating environmental policies within economic policies under a national sustainable development policy that guarantees that environmental considerations are taken into account early in the planning

process. The policy directions currently being adopted by the Ministry of State for the Environment (MSE) and the focus on the local decentralized level, with attention being given to institutional buildup at that level represents an important development that can substantively support initiatives for improved sanitation coverage for rural populations. While environmental accounting is now being put into practice, the serious attention accorded by the MSE to strengthening the mechanisms for penalizing those guilty of damaging the environment is a first step towards culture of accountability.

The growing authority accorded to governors will be instrumental in breaking up the compartmentalization of the sectors involved. Their contribution to a governorate level initiative for improved sanitation coverage can guarantee full coordination and overcome the fragmentation of responsibilities that has characterized the sanitation domain. An integrated and coordinated approach can be built around shared objectives and agreed priorities developed locally at the governorate level with the participation of all stakeholders. The development of a strong partnership between the health sector and the local environment monitoring units can prove to be mutually beneficial.

The future: business as usual?

The vitally important loss to Egypt if business as usual is allowed to continue for another decade is related to the erosion of the human capital and irreversible degradation of natural resources. This will have a deterring impact on the achievement of the MDGs, on economic growth and on important economic sectors such as tourism.

It is preferable to base a scenario on increased efficiency and better governance (in partnership with civil society) through:

- improving performance and better management and cost-effective use of all existing resources;
- applying lessons learnt from past experience especially for affordable appropriate technologies;
- adopting a participatory approach with the involvement of civil society and the various stakeholders;
- supporting decentralization of management through strengthening the roles of the local Environment Affairs Offices and other concerned sectors;
- providing technical support for each governorate to develop and implement an appropriate and integrated action plan for the environment that addresses the needs and particularities of the local context.

Apart from the scenario the following actions are deemed to require immediate attention:

- update the sanitation content of all existing norms, regulations, laws and technical instruments covering all types of waste materials;
- develop a data and knowledge base on the existing environmental and health risks and hazards for given geographic localities or related to specific practices, as well as their recommended management — to be shared by the health and environment local teams;
- evaluate past efforts, programs and technologies used for identification of best management practices and systems such as biogas production from waste matter;
- use the experience and networks of NGOs and CDAs trained in solid waste and wastewater management and advocacy — in particular for promoting the demand for good sanitation and good hygiene practices;
- ensure that in restructuring the water and sanitation sector, the roles of all partners iare well defined, with a view to decentralizing responsibility to governorate level;
- facilitate the involvement of communities and the private sector;
- identify the most serious environment-damaging practices, and provide the missing technical alternate options/solutions;
- enhance compliance through provision of incentives, and of alternate solutions and through supporting financing schemes;
- strengthen ongoing environment education efforts with actual examples of environment damaging practices and behaviors, and reinforce these messages through the media.

The most urgent actions are needed for gross and extremely dangerous irregularities, in particular the injection of household, institutional and

▼ **Urgent action is needed to stop the injection of household, institutional and industrial waste and effluents into the underground water table and aquifers**

industrial waste and effluents into the underground water table and aquifers. Critical and strategic policy changes could support the practice of subjecting all activity permits, programs, projects, and plans, to an 'environment clearance' following an objective analysis of the environmental impact of the activity and the inclusion of remedial measures. The challenge is to apply this approach not only to the formal sector, but to the informal sector that escapes rules and regulations. The trade-offs in favor of developmental priorities have to be carefully investigated for environment remedial action to become an integral condition of policy decisions within overall national plans and priorities.

▼ Land utilization and tourism must abide by norms that respect the environment, biodiversity, and Egypt's natural heritage

The ideal scenario

This would present what can be realistically achieved in a decade, and would treat areas that are critical to achieving improved the sanitation coverage goal. It proposes solutions to overcome the constraints that have been identified as impeding progress. The focus will necessarily be on the poor and underserved since it is this segment of the population that are mostly deprived of sanitation facilities. A strategic approach includes developments in time (phases) and in space (at all levels: central and local), distributing the roles and responsibilities among the different actors and partners.

Structural Framework of the Scenario:

- institutional and Managerial framework to include:
  - a societal/behavioral base;
  - a technical base;
  - economic means and instruments.
- data generation, R&D, and a monitoring system;
- mobilization and utilization of financial resources through sustainable options that include the community/users;
- evaluation of capital cost and O&M needs to achieve equitable coverage goals by type of sanitation and total capital cost.

Some components of the ideal scenario include proposals that treat areas that are considered critical. The ideal would be that at the end of the decade, we could witness the following list of accomplishments — not exhaustive but indicative — that fit into the strategic approach:

- appropriate policies and strategies for sustainable development are integrated in the national Five Year Plan for Egypt;
- a National Environment Action Plan that is updated to strengthen its sanitation content;
- the full integration (both administrative and technical) of water and sanitation services within the restructuring program already underway of the new Holding Company for Drinking Water/Sanitation and its affiliates, representatives, and branches at all levels;
- mechanisms to facilitate trans-sectoral and trans-disciplinary action as a condition *sine qua non* for the application of comprehensive and integrated sustainable human development strategies;
- elimination of the practice of injection of waste into underground water;
- the new 'Master Plan for Sanitation' that is based on demographic projections, plans for urbanization and new settlements, and which harmonizes with plans for establishing new drinking water supply stations and networks to give due attention to the maintenance and repair components;
- ensuring that newly formulated plans for integrated management of water resources are translated into an action plan that covers *all* actors/partners;
- guaranteeing that all rural communities have access to safe methods for human excreta and wastewater collection and disposal/management that are adapted to the local geophysical and hydrological (underground water table) conditions;
- health facilities and clinics are given the mandatory requirement to dispose correctly of their healthcare waste, and all hazardous waste including radioactive materials are accounted for and properly disposed of (through an appropriate registering/tracking system);
- the informal productive sector, small production units and small entrepreneurs adopt and apply mandatory environmentally friendly practices, supported by affordable alternate solutions developed with their participation and that of NGOs;

- factories treat their effluents and wastes according to the strict application of the existing legislation, and new incentive schemes;
- emissions and car exhaust are regulated and significantly reduced to acceptable levels of air pollution;
- industrial zones respect environmental norms, in particular air polluting factories of the cement industry. Occupational health safety measures are adopted inside the factories and workplace;
- land utilization permits and tourism development plans abide by norms that respect the environment, biodiversity and the natural heritage of the land and the people.

Critical ingredients for success

- formulation of a 'National Policy' for the environment within sustainable human development based on a forward looking vision that defines priorities for action in the area of sanitation, with identification of immediate, mid- and long-term action;
- application of environmental accountability measures;
- preserving a balance between drinking water supply and sanitation services;
- fostering locally developed and proven innovative low-cost technologies;
- awareness raising, and local organization of community participation with the participation of civil society;
- innovative and alternative solutions to correct damaging behaviors and/or practices, based on best practice and a fund of rich scientific and operational international research; develop local R&D capacity.

Financial considerations: an ideal scenario

- a full breakdown is needed of estimated cost and budget and expected source of funds for the sanitation requirements up to 2015. This is essential to realistically update the Master Plan for Sanitation for Egypt, and some estimates have already been made by the relevant authorities;
- the lessons learnt from all of the partners involved in rural sanitation should be shared, possibly in workshops, to review, analyze and benefit from synergies in experiences, as well as to compare costs and successful cost-efficient measures. The outcome would form the basis of a set of simple guidelines, technical and managerial, and include national norms as a tool for communities, and for local government, working towards the national and MDG sanitation target;
- discussion of the technical as well as the financial aspects and of the sources of financing of community and stand-alone sanitation collection and management/disposal systems, including safe disposal of waste materials based on field data. This includes local manufacturing of sanitary elements and the level of cost-sharing by the community, civil society and through micro-credit schemes.

Box 9.8: Financing for an ideal scenario

In comparable situations elsewhere, when a national priority program is to be implemented at the local level by local government, the provision of public treasury loans to the local authorities can become a funding option. This can be implemented in a mode of private public partnership, where the user or the communities pay their share.

It is usually recommended that public financing be at least secured for the all-important advocacy campaign needed for creating the demand.

It is believed that not enough research has been undertaken to give insight as to the communities' capacity and willingness to pay. In a number of Social Fund projects, capital costs were shared with the community following their consultation and an evaluation of their capacity to pay. Other modalities could be partnerships with local entrepreneurs under the normative and quality control of the competent technical authorities.

Micro-credit schemes can also make available small loans to poor households so as to pay for the installation of a sanitation facility. This was also tried out by the Social Fund for Development. All forms of participatory partnerships are possible. A review of the successful experiences in this domain needs to be made.

What is important at a decentralized grassroots level is to provide the necessary legal, fiscal and financial environment that can encourage and facilitate local level operational partnerships.

Source: M. Abdel Latif, Abu Bakr, Background Paper EHDR 2005

3. The Controversial Solid Waste Management Issue

In Egypt, especially in urban areas, solid waste management (SWM) is handled by both traditional, and lately, mechanized means at both the

▼ **Solid waste management is handled by both traditional, and mechanized means at both the collecting and processing phase**

Table 9.4: Price list over a period of one month of sorted items from a transfer station, (Hurgada tourist village, April 2005)

Serial	Sorted Item	Quantity	Price (LE)
1	Carton board	23,100	7,700
2	Glass	27,000	4,000
3	Plastic bags	2,550	1,0237.5
4	Mineral water bottles	14,965	2,8840
5	Plastic hangers	50	1,12.5
6	Aluminum	304	1,479
7	Iron	2,050	325
8	Pressed bags	4,866	1,375
9	Plastic containers	108	172
10	Aluminum plates	105	394
11	Copper	..	..
12	Cheese packet	537	1,447
13	Oil bottle	471	1,413
14	Milk packet	..	
15	Mixture	9,080	1,702
16	Mixture of plastic	..	..
17	Propylene	..	..
18	Anti shock packaging	481	215
19	Paper and magazines	..	-
20	Copper wire	21	84
21	Lead	..	..
22	Transparent paper	..	..
23	Perfume bottle	16	55
24	Plastic bottle covers	486	680
25	Ink cartridge	..	..
26	Hose	..	..
	Total sales		63,491

* This was the highest revenue of the year. Average monthly sales are between 40,000 L.E and 45,000 L.E

Source: Association for the Protection of the Environment - *Zabaleen*

▼ **36 million tons of agricultural and organic municipal waste produced in rural and urban areas could be used as safe fertilizer**

Table 9.5: Estimated revenue of Alexandria's solid waste, (2005)

Constituent	%	LE/ ton	Annual quantity 000 ton	Annual Revenue LE 000
Paper	11	300	110	33.0
Plastics	3.0	350	30	10.5
Minera	2.5	750	25	18.8
Glass	1.0	120	10	1.2
Textile	0.5	100	5	0.5
Bones	0.5	150	5	0.8
Bread	1.5	300	15	4.5
Total	20		200	69.2
Organic fraction	80		2800	16.0
Net compost pro.	40	40	400	385.2

Source: M. Abdel Latif, Abou Bakr, (2005), Recycling of Solid Waste, Potential Revenue in Alexandria, Egypt

initial collecting phase and in the final processing phase (through composting and recycling, sanitary landfills or incineration). Not all dumping areas are sanitary, and solid waste is often burnt in open spaces, where hazardous hospital and medical wastes are also being treated. Rural areas have no strategy for waste management; solid waste is thrown in the drainage and water canals or left in the open air to be self-burnt.

Blending the traditional with the modern

The role of the traditional Cairo *zabbaleen* or garbage collectors has and continues to be to collect solid waste from households and commercial units, and transport this on trucks to wherever it can be sorted and, when possible, recycled. Food or 'wet garbage' is given to animals, mainly pigs to feed on. Much solid waste — 80% is recyclable — is monthly turned into income. The remaining garbage is transported to dumps.

This traditional system has been unable to cope with population growth and increased urbanization, and match this with an increase in collection or personnel, or sorting and dumping areas. Further, government support and low collection fees from households have become increasingly inadequate as municipalities turned to other types of mechanized services. Alexandria's fully mechanized ONYX Company is one example (see below). The services of foreign SWM companies has been controversial but these are employing some young people from the traditional *zabbaleen* as paid workers who collect from households and commercial units and deposit the garbage in street bins to be collected and processed. From the point of view of the service consumer, this has not been fully effective, as street bins are raided by scavengers who select what is useful for selling and recycling, and scatter litter around the bin, which attracts stray animals and rats.

The suggested best practice is to mix the traditional with the modern, with support from the government, to improve on the present semi-integrated system. Practical NGO experience by the Association for the Protection of the Environment which has worked extensively with the *zabbaleen* in Cairo, has taught that:

- the *zabbal* has a sense of ownership of the garbage he collects. When he deposits what he collects in a company bin he has lost his mark-up which supplements income from fees or salary;
- a transit collection and sorting station would be preferable to street bins for collected garbage, equiped with a sorting belt where the *zabbal* can sort his garbage collected and use income from the sorted items by

Box 9.9: Examples of modern best practice in sold waste management

In 1999-2000, Alexandria and Qena governorates adopted clear programs for comprehensive solid waste management that have yielded gratifying results.

- **Alexandria**. As a result of a failing SWM system, Alexandria governorate signed a contract with ONYX, a French company to be responsible for solid waste management and cleaning up the streets, public squares, and beaches. ONYX has established two sanitary landfills, one in Borg El Arab, 53 km out of Alexandria on the coastal Matrouh highway and the second in Hammam region, 25 km away.

- **Qena**. This experience is totally executed by local firms and local manpower. In 1999, the governor adopted a local strategy for SWM, by which the governorate was divided into area or housing quarters, each with its own labor force responsible for waste collection and cleanliness. For recycling, an organic fertilizers plant was set up in this mainly agricultural region to recycle fertilizer solid waste (10 ton/hour).

- **Rural areas**. Despite the fact that in some of Egypt's villages, Community Development Associations (CDAs) and NGOs contribute to the waste collection process through projects funded by donors and international and local development organizations, much work and effort remains to be done. Unfortunately, in most villages, people toss their waste outside their houses, dump garbage on canal banks or tip it into the waterways, or burn it.

The 36 million tons of agricultural and organic municipal waste produced in rural and urban areas could be treated and used as organic and safe fertilizer in the reclamation of an estimated 1.5 million feddans yearly, yielding an additional LE 3.4 billion to the national coffers. Current practices squander about 20 million tons of this waste, worth an estimated LE 2 billion, and raises the demand for chemical fertilizers.

There is a need to educate rural populations in hygienic waste disposal through the schools or the media. Changes in behavior patterns are sometimes difficult to introduce, and NGOs and CDAs could provide valuable support here. Since around 80% of Egyptian waste is of organic nature, it is critical to deal with it carefully to avoid infectious disease transmission. Benefits of waste recycling could be highlighted. For example, the paper industry in Alexandria benefits from about 155 thousand tons of waste paper annually, bought from garbage collectors, who are paid in return around LE 62.million.

Source: M. Abdel Latif. Backgropund Paper EHDR 2005

Table 9.6: Elements of SWM in Alexandria and Qena governorates

Statement	Alexandria	Qena
Population	4.5 millions	3 mill
Area	2300 km^2	10,798 km^2
Population density	1,605 person/km^2	261 person/ km^2
No. of area	6 neighborhoods (*hay*)	11 districts (*markaz*)
SWM	**Alexandria**	**Qena**
Labor	• 4,000 employees	• 3,000 employees
Collection	• from households to collecting bins distributed in the neighborhoods	• from households to specialized transport cars. Containers not needed for collecting waste
Treatment	• 10% goes to three organic factories and the rest to the sanitary landfill	• a part goes for the organic factory, while the largest amount goes to the general dump (*maklab*)
Clinical waste	• collected and buried in the sanitary landfill with the rest of the waste (until April 2005)	• collected in bags with different colors, to be buried where appropriate in the general waste disposal site
Financing	• first invested installment of Euros 50 million from ONYX. Additional quotas collected from medical activities, house owners, trade and industrial units. This is in addition to the 2% paid yearly to the governorate	• by collecting fees added to electricity bills where LE 1 is collected from rural and LE 2 from the city
Origin of manpower	• Alexandria and Beheira	• Qena Youth Employment Project

Source: Abu Bakr (2005), Ibid

▼ An independent or joint entity to coordinate SWM could be set up as a sorting house for best practice techniques

transporting these items on his account. The trash remaining after the sorting is pressed by the company truck and transported to the sanitary dump.

This hybrid mix of traditional and modern has been successfully applied by AMA, an Italian company collecting in the northern Cairo area of Shobra. It has met the needs of the different stakeholders as it allows sorting, reduces the remaining amount to be dumped and provides effective sanitary dumps thereby reducing air pollution. However, human behavior also plays a part in the effectiveness of garbage disposal even though the cost to the consumer may be the same. AMA collects garbage from seven districts in northern Cairo. The cost is standard but the results differ by district. In one district, the chief district officer personally monitors the process, leading to an excellent outcome. The National Council for Childhood and Motherhood together with a private NGO has conducted an awareness project in Cairo's North districts, and found that the people in the successful Sharabia area learned and acted according to directives from the health and the environment program. AMA has been encouraged by this success to collect more thoroughly and easily from the area.

Enabling conditions

The role of the authorities would be to set up dumps in areas that are environmentally safe (for example, in the desert) with easy access from transfer collection stations, ensuring the layers of garbage are covered with sand with a minimum of one loader according to the quantity dumped. Collectors would need a complete map of the area covered, with definite routes and means of collection for different needs (small alleys, hospitals, approximate number of households and commercial units). A behavioral requirement, to be enforced by the municipalities, is that garbage must be put in tied plastic bags to be opened only at the transfer station; a fine would help in the execution of this process. Another measure to facilitate the collection and sorting of garbage is a requirement that household and commercial units' garbage be separated at source into two categories, 'wet' garbage in one bag and solid waste in another. While this is yet to be introduced in Egypt, it would definitely improve the quality of recyclable items and reduce the amount of trash to be dumped.

▼ Financial institutions and donor organizations could provide incentives to private industry able to reuse waste

Role of the government

In a study conducted by the Social Fund for Development in 2000, it was discovered that SWM constitutes a first priority for 19 governorates in Egypt. In 2000-2001, the Council of Ministers allocated a budget of LE 475 million for waste management in 20% of the cities in Egypt. More recent figures are not available, but the amount is likely to be even higher. But efforts remain piecemeal. For example:

- private associations and NGOs have, in the Zamalek district of Cairo, helped municipalities organize and improve the efficiency and effectiveness of garbage collectors, providing, amongst other things, the equipment needed to facilitate their work;
- there are major benefits in using Transit Sorting Stations, for sorting paper, plastic and metal and with facilities to process the fermentation of organic matter. In the former case, this would reduce the amount of the final transported waste by 70%, while the latter could feed directly into the production of organic fertilizers;
- the Ministry of Local Development has allocated LE 265 million for the creation of 56 compost units, under the authority of the Production Division of the Army. Technical problems due to lack of experience suggests that a more effective alternative would be to privatize the manufacture and supply of compost units.

Effective SWM planning

- for better management of solid waste, it is essential to first consider population, its potential growth, and its relationship with the place of waste generation as well as the type of waste (from trade, industry, homes etc). A budget would be allocated for waste management activities before the beginning of each fiscal year;
- international standards need to be applied. For instance, hazardous medical waste has to be separated, treated and buried in different locations than other types of waste. To ensure this would require the modification of Article 17 of Law 38/1967;
- it must become mandatory for housing and planning units in all of Egypt's governorates to include waste management programs for the cities and villages they serve;
- it is crucial to increase hygiene awareness, especially among rural populations.

The ideal scenario

An independent or joint entity to coordinate SWM could be set up to report to the Ministry of Local Government, which is responsible for financing SWM activities at the national level. This body would act as a sorting house for best practice techniques developed locally or borrowed from international experience, and coordinate the many faces of a national awareness campaign.

Both the local administrative and planning units and the Ministry of Local Government would take into consideration the resource and cost recovery process for municipal solid waste. Financial institutions and donor organizations could provide incentives to private industry able to reuse waste (in paper, metals, and plastics, for example) thereby indirectly upgrading capacity and contributing towards cost recovery. Low-interest loans towards developing better public competence (such as in Qena) or using private expertise (such as in Alexandria) could

also make a valuable contribution. Creating an informal commodities market for certain types of waste has been suggested to increase its demand value at the level of all Egyptian governorates. ■

Annex 9.1 cost estimate for rural and urban sanitation

EHDR 2005 has focused attention on the issue of providing proper sanitation for all Egyptian and especially those in rural areas. An enquiry was made of two on-going pilot projects in a number of cities and villages. These include Kom el Dabaa villages (800 and 2000 families) per site in the governorate of Qena and Moufty al Kobra villages (420 families each) in the govenorate of Kafr el Sheikh. The following table was prepared in order to present cost estimates broken down by cost element. Two first columns refer to Kom el Dabaa (ESDF) and six to Moufty al Kobra (GTZ420). As can be seen from the table below, the cost per system varies from LE 3,150,632 (D420) to the highest LE 5,660,093 (ESDF2000).

Investment cost summary		ESDF800	ESDF2000	A420	B420	C420	D420	E420	F420
Sanitation installation (per house)	LE							1,127,549	26,240
Urine collection (per house)	LE								464,814
Blackwater collection (per house)	LE							1,016,736	
Greywater collection (per house)	LE			2,259,839	1,665,791	1,745,759	1,665,791	1,538,342	1,636,702
House Connect. (min 800/max 2000)	LE	412,499	1,031,248						
Networks & elevating pump	LE	1,371,137	1,371,137						
Treatment (interceptor tanks)	LE				297,481				
Treatment (stabilization ponds)	LE			687,475	445,122				
Treatment (drying beds)	LE			52,793	52,793				
Treatment (vermicomposting)	LE					65,488			
Treatment (UASB/septic tank)	LE						201,519		
Treatment (constructed wetlands)	LE					750,535	691,688	315,545	371,530
Treatment Plants	LE	1,466,049	1,466,049						
Biogas plant & installation outside	LE							571,200	246,601
Treatment of feaces	LE								14,166
Sludge trees & mgmt of forests	LE	102,188	102,188						
Electric transformer	LE	165,998	165,998						
Generator for the pumping station	LE	100,003	100,003						
Subtotal	LE	3,617,874	4,236,623	3,000,107	2,461,187	2,561,782	2,558,997	4,569,372	2,760,053
Civil works	LE	180,894	211,831	120,002	98,446	102,473	102,359	170,153	110,399
Allowances	LE	361,787	423,662	300,009	246,116	256,176	255,898	425,380	276,004
Design,superv. & land survey	LE	18,293	18,293	273,612	224,460	233,635	233,378	416,726	251,714
Mgmt, admin.,workshops & awareness	LE	769,685	769,685						
Total investment/system	LE	4,948,532	5,660,093	3,693,729	3,030,209	3,154,066	3,150,632	5,581,631	3,398,169
O & M cost summary									
Number of families	LE	800	2000	420	420	420	420	420	420
Personnel costs	LE	2441.88	6104.7	19,392	8,397	11,174	8,996	18,071	75,501
Material costs	LE	1556.52	3891.3	21,484	11,274	11,881	14,337	13,130	1,392
Auditing, monitoring & evaluation	LE	7,003	17507.5						
Energy	LE			2,099	2,099	2,099	2,099	4,013	2,099
Total O&M costs/family	LE	11,001	27,504	42,976	21,770	25,154	25,433	35,214	78,992
Net present value (NPV)	LE	5,652,801	7,740,347	4,339,717	3,520,574	3,668,413	5,332,102	6,069,198	4,376,207
NPV/Families									
Families in Moufty al Kobra: 420	LE	12,481		10,333	8,382	8,734	12,695	14,450	10,420
Min. families in Kom El Dabaa: 800	LE	7,066			4,901				
Max. families in Kom El Dabaa: 2000	LE		3,870			2,666	3,867		
NPV /Capita (LE)	LE	1,178	645	1,722	1,397	1,456	2,116	2,408	1,737
NPV /Capita (Euro) 1 Euro= LE7.14	€	165	90	241	196	204	296	337	243

Note: The ESDF alternative has conventional treatment plant, whereas the GTZ (A420 - F420) are all based on individual on-site treatment. The ESDF has off-site components, which can be shared like in conventional treatment plants. The closer we get to full capacity, the more the NPV/Capita will go down, where the NPV/Capita in (ESDF2000) is the lowest and reaches LE 645 and the NPV/Capita in (E420) is highest and reaches LE 2,408.The unused fields shown in Moufty al Kobra will remain the same if we assume a larger population. The less sanitation facilities are used the more the areas are rural. From A through F more recycling is used, which allows more economies of scale.There is a common solution offered for grey water in E and F, whereas in the rest there is only individual recycling.
Dark red entries are verified whereas blank ones are calculated.

It is further estimated that some 20 million people will meet access to sanitation over the next ten year period of whom one quarter in Cairo and Alexandria and the rest in rural and other urban areas. The total cost is estimated at LE 34 billion for the 20 million people or around LE 1,700 per capita, where the calculation of the cost per capita is based on analysis of the various projects in the two pilots governorates. The proposal is that the government contributes LE 1,000, the community LE 400 and the owner LE 300. The contribution of the state would be in the form of long-term loan of LE 20 billion, to be repaid by the beneficiary. As to the contribution of the community LE 400 (LE 8 billion for the 20 million people) this could be contributed as grant, part of the pro-poor programs in designated rural and urban areas. Each beneficiary is expected to pay LE 300 (LE 6 billion for the 20 million) in cash or in kind (work-time towards construction of the facility). For more details about the costing of sanitation facilities for the coming decade refer to Annex 1.1 notes of table 1.2.

The ESDF alternatives compared to A420 through F420 range from conventional to individual on-site treatment The ESDF has off-site components, which can be shared like in conventional treatment plants That brings the NPV / Capita down, the closer we get to full capacity.White fields show in Moufty al Kobra happens the same if we assume a larger population. More spacing, more rural, more recycling however favors economies of scale A through FE and F are extremes in the way, that for grey water acommon solution is offered, the rest is individual recycling Dark red entries are verified, blanc entries are calculated

Source: Reinhard Honert, Background Paper for EHDR 2005

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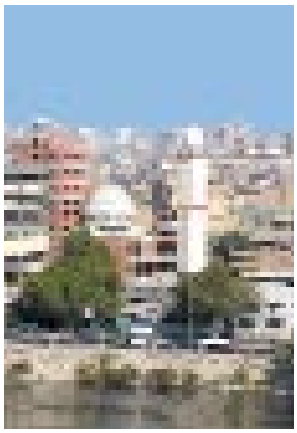
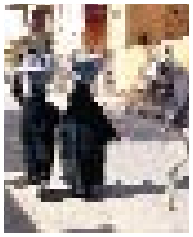
Technical Notes and Sources of Data







Technical Notes and Sources of Data

A. Human development index

The human development index comprises achievements in three key human development areas:

1. *Longevity*. measured by life expectancy at birth.
2. *Educational attainment*: measured by a weighted average of literacy (15+) (two-thirds) and combined first, second, and third-level gross enrolment ratio (one-third).
3. *Standard of living*. Measured by average GDP per capita in US$ according to purchasing power parity (PPP).

Calculation of HDI

Before the calculation of the HDI, an index for each key component is calculated separately. For that, maximum and minimum values (posted goals) of the four basic variables are determined as follows:

Indicator	maximum values	minimum values
life expectancy at birth	85	25
literacy (%)	100	0
combined enrolment ratio (%)	100	0
GDP per capita (PPP$)	40,000	100

The index for any component of HDI can be computed as:

- (the actual value -the minimum value) / (the maximum value-the minimum value).
- HDI is then calculated as the simple average of the three indices.

The HDI value indicates the level of development. When it goes below the value of one, this shows how far the country/governorate is from achieving the human development goals. In this case, the development plan should find the gaps that retard the level of development, and set up the necessary policies and programs for achieving the ultimate devel-opment goals, which are more inclusive than just increasing income level. The benefit of ranking the governorates in descending order is limited, as it does not show in which areas the differences between governorates exist. Is it because of economic, health, environmental, or educational factors? It might be all of the components combined or, perhaps, what might be more important is speeding up the development process.

One of the main objectives of this report was to construct a human development index at the national and governorate levels. The Central Agency for Public Mobilization and Statistics (CAPMAS) provided data related to the population and labor force The Ministry of Health and Population and the Ministry of Education provided all required data related to health and education at the national and governorate levels.

The following example of Port Said governorate may illustrate the above-mentioned steps for calculating the human development index:

1. Calculating longevity index

Life expectancy at birth was estimated using detailed data on mortality and population by age group. Life expectancy at birth for Port Said governorate in 2004 was estimated as 72.1 years, therefore, the life expectancy index = (72.1-25) / (85-25) = 0.785

2. Education index

The education index measures the relative achievement of Port Said governorate in the literacy rate (15+) and the combined gross enrolment ratio (basic, secondary, and university). Educational attainment indices are calculated separately and added together to form the education index giving two-thirds to literacy rate (15+) and one third to the combined gross enrolment ratio as follows:

- literacy index for Port Said governorate (15+) = (83.0 - 0) / (100 - 0) = 0.83;
- combined gross enrolment index = (72.1 - 0) / (100 - 0) = 0.721;
- education index = 2/3(0.83) + 1/3(0.721) = 0.796.

3. GDP per capita index

GDP per capita for Egypt was estimated from the national income accounts of 2003/2004. The estimated GDP per capita in local currency (LE) was transformed to its value in US$ using an appropriate exchange rate (average for 2004, taking into consideration the Ministry of Planning estimations). Then, the real GDP per capita (PPP US$) was calculated by applying a suitable factor to the estimated GDP per capita in US$ (the factor used in the international report for 2004). This resulted in a national GDP per capita index of 0.622 in 2004.

For income per capita at the governorate level, the report has benefited from the results of the latest Household Income and Expenditure Survey (HIES) carried out by CAPMAS in 2004/2005.

In the HDI, income per capita substitutes for all other aspects of human development that are not reflected in literacy rate or in life expectancy at birth. Income per capita is refined since achieving a proper level of development does not mean having a specific level of income. Therefore, the logarithm of the income value used is as follows:

GDP index for Port Said governorate = [log (9070) - log (100)] / [log (40,000) - log (100)] = 0.752

4. Calculation of HDI

HDI is calculated as a simple average of the three indices. HDI for Port Said governorate =1/3(0.785+0.796+0.752) = 0.778.

B. Demographic aspects

The main sources of demographic data are population censuses, vital registration, and special national surveys. CAPMAS is the official national organization responsible for carrying out and/or publishing the results of some of these sources (population censuses and vital statistics). CAPMAS is also a major partner or consultant in carrying out the other sources (e.g. National Fertility Surveys). The demographic indicators, derived from these sources, reflect the population situation and its trends. Some of

these indicators are used in other fields (e.g. health). In addition, population figures (total or for specific categories) are necessary for computing many indicators in various fields. CAPMAS provided all necessary data related to demographic aspects.

The present report includes the following demographic indicators:

- population counts and projections (thousands);
- population annual growth rates (%);
- rural population as % of total;
- urban population as % of total;
- annual growth rates of urban population (%);
- population of largest city as % of total urban;
- demographic dependency rate (%);
- net lifetime internal migration as % of total population;
- population density per km^2;
- population doubling date at current rate;
- crude birth rate (per 1000 population);
- total fertility rate;
- ratio of 2002 fertility to 1960;
- contraceptive prevalence rate (%);
- average age at first marriage;
- crude death rate (per 1000 population);
- infant mortality rate (per 1000 live births);
- under five mortality rate (per 1000 live births);
- maternal mortality rate (per 100000 live births);
- life expectancy at birth.

The first ten indicators listed above were derived from census data and/or population projections provided by CAPMAS. Net lifetime internal migration as a percentage of total population at the governorate level was derived from the 1996 census data, and the population doubling date given at the national level. The latter indicator is calculated by the exponential function using the annual growth rate for 1996-2004.

Mortality measures, crude birth rates, and average age at first marriage rely on vital statistics. Life expectancy at birth, at the national and governorate levels for 1976 and 2004 were computed from detailed data on deaths and population by age and gender after allowing for under-registration of infant deaths. Motherhood and childhood indicators, related to the preservation of the child's life, in addition to data on contraceptive prevalence, are taken from Ministry of Health and Population figures for 2004.

C. Labor force and unemployment (15+)

Labor force and unemployment indicators in this report rely on CAPMAS estimates for the labor force and its various distributions (by gender, age, industry, occupation, employment status, etc.) for urban/rural areas of each governorate in 2004.

The indicators covered are as follows:

- labor force (15+) as % of total population;
- % of females in the labor force (15+);
- labor force (15+) in agriculture, industry, and services (%);
- wage earners, i.e. employees, as % of labor force (15+);
- professionals and technicians as % of labor force (15+);
- % of females in professional and technical staff;
- employees in government and public sector as % of total labor force (15+);
- unemployment rate (%), total, females, and adults (15-29);
- urban and rural unemployment rates (15+);
- unemployment rate by education (15+);
- absolute numbers of unemployed (15+);
- future labor force replacement ratio (%), i.e. population under 15 divided by one-third of population (15-64).

D. Education and literacy

Education and literacy indicators require three types of data:

1. Standard educational data, e.g. students (enroled or graduates), teachers, classes, etc. The primary sources of this type of data are the Ministry of Education and Al-Azhar Education Administration. These data are updated and published annually. They are given in detailed gender and governorate desegregation for pre-university levels. For the tertiary level, the Supreme Council of Universities publishes the data at national and university levels.
2. Literacy data (15+). These data are published through Census-based data. CAPMAS provides estimates of illiterate and literate (able to read and write) population categories (15+) for all levels of desegregation.
3. Economic data required for deriving indicators of public expenditure on education. The government budget, published annually by the Ministry of Finance, is the primary source of data on pubic expenditure on education. However, the data are not disaggregated by governorates.

Based on these types of data, the report includes the following indicators on education and literacy:

- apparent primary intake rate (%);
- primary gross enrolment ratio (%);
- preparatory gross enrolment ratio (%);
- basic gross enrolment ratio (%);
- secondary gross enrolment ratio (%);
- combined basic and secondary gross enrolment ratio (%);
- tertiary enrolment ratio (university and high institutes) (%);
- % of basic and secondary enrolment in government, private, and Al-Azhar schools;
- combined first, second, and third level gross enrolment ratio (%);
- primary repeaters as % of primary enrolment;
- preparatory repeaters as % of preparatory enrolment;
- % of population (15+) with secondary or higher education;
- secondary repeaters as % of secondary enrolment;
- transition to preparatory as % of enrolment in the final grade of primary education in the preceding year;
- transition to secondary as % of preparatory completers.

- primary pupils/teacher ratio (i.e. average number of pupils per teacher);
- preparatory pupils/teacher ratio;
- class density (average number of pupils per class) at primary or preparatory level;
- secondary technical enrolment as % of total secondary;
- tertiary science enrolment as % of total tertiary;
- public expenditure on education as % of total;
- public expenditure on education as % of GDP;
- % unfit school buildings (total, completely unfit, badly maintained);
- literacy rate (15+) (%);
- tertiary graduate ratio (% of corresponding age);
- science graduates (% of total graduates);
- absolute numbers of illiterate (15+).

These indicators are given by gender for national and governorate levels. Moreover, literacy indicators are also calculated for urban and rural areas. However, expenditure indicators and those for tertiary education are given for the national level only.

The following notes pertain to the indicators listed above:

1. since reliable data on enrolment by age are not available, especially for primary education, gross enrolment ratios were calculated for all levels.
2. the population figures in the age groups corresponding to different educational levels were estimated by applying Sprague Multipliers to the census population by age groups in 1960 and 2004 respectively.
3. some of the enrolment and transition ratios exceed 100% as a result of the numbers of students above (or below) the age limits of the education level.
4. since enrolment in university and higher education by governorate are not available, the combined first, second, and third-level gross enrolment ratios for various governorates were derived after distributing total enrolment in university and higher education at the national level according to the relative shares of the governorates in pre-university enrolment.

E. Nutrition and food security

The report includes the following nutrition and food security indicators:

- daily calorie supply per capita;
- shares in daily calorie per capita (vegetables and animal products);
- children ever breastfed (%);
- underweight children below the age of five (%);
- food production per capita index (1979-1981=100);
- agricultural production as % of GDP;
- cereal imports (1000 metric tons);
- food exports as % of food imports;
- food imports as % of merchandise exports;
- food self sufficiency ratio (%);
- food import dependency ratio (%).

The first two indicators are based on the Food Balance Sheet (FBS) published by the Ministry of Agriculture and Land Reclamation. The next two indicators, on children nutrition, are taken from the Ministry of Health and Population for 2002 at the governorate level. The remaining indicators are given at the national level only. Food production per capita index is taken from the FAO Annual Bulletin of Statistics. Agricultural production as percent of GDP was derived from National Income Accounts provided by the Ministry of Planning. Food imports and exports as well as total merchandise exports are published annually by CAPMAS.

The last four indicators depend on the value of local food production, food imports, as well as food and total merchandise exports. The volumes of detailed groups of commodities of local food production were available from the Ministry of Agriculture, while the detailed tabulations of volumes of commodities of the remaining components are published annually by CAPMAS.

The value of local food production was computed by applying Free On Board (FOB) prices to the volumes of tradable commodities and producer prices to non-tradable commodities. The value of food imports were derived by applying Cost Insurance Freight (CIF) prices whereas FOB prices were applied for computing the value of food exports.

The overall food self-sufficiency ratio was derived by dividing the value of local food production by the value of total food consumption (i.e. local food production-food exports + food imports). On the other hand, the food import dependency ratio is computed by dividing the value of food imports by the value of food consumption.

F. Health and public utilities

In addition to health-related indicators covered in other sections, this report includes the following indicators on health and public utilities:

- population with access to health services (%);
- pregnant women with prenatal care (%);
- children (12-23 months) fully immunized (%);
- doctors (MOHP) per 10000 people;
- nurses (MOHP) per 10000 people;
- nurse /doctor ratio (%);
- beds per 10000 people (total and MOHP);
- health units per 100000 people;
- public expenditure on health as % of total;
- public expenditure on health as % of GDP;
- population or households with access to piped water (%);
- population or households with access to sanitation (%).

Egypt Demographic Health Survey (EDHS) provide indicators at the national level and for rural and urban areas of the main groups of governorates. The health related data are provided by the Ministry of Health and Population information center for 2004. Data on public expenditure on health rely on government budget data, published annually by the Ministry of Finance, in addition to GDP figures taken from National Income Accounts provided by the Ministry of Planning.

These indicators are given by gender at the national and governorate levels. However, public expenditure on health is given at national level only. The following notes pertain to the indicators listed above:

a. The data on total health personnel are deficient as there is no efficient system to update their number taking into account factors such as migration, retirement, on-leave periods, and duplication in the statistics of personnel in private or government institutions. The relevant indicators in this report include only the health personnel in the Ministry of Health and Population (MOHP). Consequently, they may not accurately reflect regional disparities in this respect.
b. It should be noted that health personnel attending births include doctors, nurses, and trained midwives. The traditional birth attendant (*daya*), however, plays an important role, especially in the rural areas. This is reflected in the high rate of births attended by health personnel at the national and governorate levels.
c. The indicator of households with access to sanitation reflects the percentage of the population with access to proper sanitation systems, such as toilet linked to public network, under ground sanitation tank, or toilet connected to simple or enhanced hole. According to the concept of health science, any private or joint (but not public) disposal system is considered healthy if it separates between human disposals and human beings.

G. Natural resources and energy consumption

The report includes the follow-ing indicators on natural resources and energy consumption:

- land area (thousand km^2);
- cultivated area (thousand feddans):
    - o as % of land area;
    - o persons per feddan;
- irrigated land as % of arable land area;
- crop area: thousand feddans;
- crop/cultivated land ratio;
- total water resources (billion m^3);
- water consumption as % of total water resources;
- internal renewable water as % of total water resources;
- per capita internal renewable water (m^3/year);
- % of water withdrawals by:
    - o agriculture;
    - o localities;
    - o industry;
    - o navigation;
- total fish catch (thousand tons);
- % of fish catches from:
    - o fresh water (Nile & Lake Nasser);
    - o marine (Mediterranean & Red Sea);
    - o lakes;
    - o aqua culture;
- electricity consumption: total (billions of kilowatts-hour);
- electricity consumption per capita (kilowatts-hour);
- total commercial energy consumption (million ton oil equivalent);
- commercial energy consumption per capita (kg oil equivalent);
- % of commercial energy consumption from:
    - o oil products;
    - o natural gas;
    - o electricity;
    - o coal;
- commercial energy consumed (in kg of oil) equivalent per LE 1000 of GDP;
- net commercial energy imports (as % of energy consumed);
- final energy consumption: total (million ton of oil);
- final energy consumption from:
    - o oil products;
    - o gas;
    - o electricity;
    - o coal;
- % of final energy consumed by:
    - o industry;
    - o transportation;
    - o agriculture;
    - o households & commercial;
    - o other.

The total land area by governorate is available from the Ministry of Local Development. The data on cultivated and crop area at the governorate level were taken from the publications of the Ministry of Agriculture and Land Reclamation. The indicators on water resources, withdrawals, and consumption were derived from data from the Ministry of Water Resources and Irrigation (Center for Water Resources). Fish catch indicators were calculated from the data available in CAPMAS 'Statistical Yearbook' for 2004.

The indicators on energy consumption were computed from data in 'Energy in Egypt 2002/2003,' published by the Agency of Energy Planning. The main difference between commercial and final energy consumption is the exclusion in the latter of the amounts of energy source (or sources) consumed as input in the production of another source (e.g. the use of natural gas or oil products in the production of electricity). The commercial energy consumed in kgs. oil equivalent per LE 1000 of GDP is based on market prices.

H. Communications

The communications profile is represented by a number of indicators. The major sources of data required for deriving these indicators are population censuses and annual reports on related areas. CAPMAS publishes these reports in cooperation with the concerned ministries and organizations.

The communications indicators included in this report are:

- households with television (%);
- households with radio (%);
- average number of people served by one post office;
- telephones per 1000 households;
- number of cell phone subscribers per 1000 people;
- number of internet subscribers per 1000 people.

The first three indicators are taken from EDHS 2000. The other indicators were found on the web site of the Ministry of Communication and Information Technology (data are as of December 31, 2004).

I. Economic aspects

Economic indicators included in this report are as follows:

- average GDP per capita (LE) at the national and governorate levels;
- average GDP per capita (PPP$) at the national and governorate levels;
- income share of poorest 40% of population;
- ratio of richest 20% to poorest 20%;
- Gini coefficient;
- total poor persons as % of total population;
- ultra poor persons as % of total population;
- wages of poor households as % of their income;
- wages of poor households as % of total wages;
- % of total expenditure spent on social security;
- % of total expenditure spent on defense, security, and justice (in addition to % of public expenditure spent on education and health referred to earlier);
- public expenditure on social security as % of GDP;
- public expenditure on defense, as % of GDP (in addition to public expenditure on education or health as % of GDP referred to earlier);
- total GDP (LE billion);
- agricultural product as % of GDP;
- industrial product as % of GDP;
- services as % of GDP;
- households consumption as % of GDP;
- government consumption as % of GDP;
- gross domestic investment as % of GDP;
- gross domestic saving as % of GDP;
- tax revenue as % of GDP;
- exports as % of GDP;
- imports as % of GDP;
- total civil external debt as % of GNP;
- civil external debt service ratio (as % of exports);
- workers' remittances from abroad (LE million);
- export/import ratio (%);
- trade dependency (exports plus imports as % of GDP);
- current account balance (LE billion);
- gross international reserves including gold;
- gross reserves (US$ billion);
- months of import coverage;
- GDP at constant factor cost for 2000-2001 (LE billion).
- annual growth rate of real GDP (%);
- annual growth rate of GDP per capita (%);
- consumer price index (1995/96=100);
- wholesale price index (1986/87=100);
- annual growth rate of exports (%);
- annual growth rate of tax revenue (%);
- direct taxes as % of total taxes;
- overall budget surplus (deficit) as % of GDP at market prices.

The report follows the cost of basic needs methodology to construct household region-specific poverty lines. The food poverty line varies for each household and for each of the seven regions.

2. Household-specific poverty lines

Differences in poverty lines reflect variations in the food and non-food prices across the seven regions. They also incorporate household differences in the size and age composition, and their food and non-food consumption preferences.

Stage 1. An initial step in defining the food poverty line is the construction of a minimum food basket, which can be anchored to some normative nutritional requirements. We first estimate minimum caloric requirements for different types of individuals. Using tables from WHO, caloric needs are separately specified for urban and rural individuals, by sex and 13 age categories. For individuals over 18 years of age, WHO's recommended daily allowances are differentiated by weight and activity levels. The estimates used in this report assume the average weight of men over 18 years of age is 70 kg and 60 kg for women. Urban individuals are assumed to need 1.8 times the average basal metabolic rate and rural individuals are assumed to need 2.0 times average BMR. Thus, each household has its own caloric requirements depending on its location, age, gender decomposition.

Stage 2. Once the minimum caloric needs have been estimated, the next step is to determine how costly it is to obtain the minimum level of calories. We determine the cost of the calories by how they are obtained on average by the second quintile, rather than by pricing out the cheapest way of obtaining the calories or following a recommended diet. For the second quintile of households ranked by nominal per capita consumption, average quantities of all food items is constructed. Total calories generated by this bundle are calculated using calories contents in every food items. These quantities represent the bundle used to estimate the food poverty lines, which reflect consumption preferences of the poor. This bundle was augmented/deflated to meet food requirements for each household. Then the bundle is priced using prices prevailed in each region to obtain household specific poverty line.

Having selected the bundle of goods, we then value it at local prices each region. Here, average unit values, revealed by the households in the second quintile for each region, were used as estimates for local prices. Unit values were obtained by dividing the reported value by its corresponding quantity.

The reference food bundle includes 184 foods, allowing more than 410 grams of food-grains per person per day, plus small amounts of fresh fish, meats, eggs and a range of local vegetables, fruits, etc. Of the 2310 calories per person per day which this bundle yielded, 60% came from cereals and grains.

Stage 3. While the cost of the minimum food bundle is derived from estimated physiological needs, there is no equivalent methodology for determining the minimum non food bundle. Following Engel's law, Food shares are regressed against logarithm of total household expenditure, logarithm of household size, share of small and older children, share of adult males and females, and share of elderly, the non-food allowance for each household can be estimated;

1. by regressing the food share against total expenditures and identifying the non-food share in the expenditure distribution of households whose expenditure on food is equivalent to the food poverty line;
2. by identifying the share of non-food expenditure for households whose total expenditure is equivalent to the food poverty line.

The former approach yields an 'upper' bound of the poverty line, while the latter yields a 'lower' bound or the 'ultra' poverty line, since it defines the total poverty line in terms of those households who had to displace food consumption to allow for non-food expenditures, deemed to be a minimum indispensable level of non-food requirements. Absolute poverty lines have been widely used in developing countries since poverty research is dominated by the concern for the attainment of basic needs and the achievement of well-being in absolute terms. By this approach household regional specific poverty lines are estimated (households with the same gender and age decomposition in each region have the same poverty lines). Obviously this approach takes into account location, age and gender decomposition as well as economies of scale as food shares, and hence non food estimates, vary according to household size, age and gender decomposition. Hence differences in food shares resulted from additional member of specific age and gender are considered. The sharing behaviors among household members are also reflected.

Stage 4. For consistent poverty comparisons, food and total poverty lines were deflated. When deflating food poverty lines, the set of prices revealed in the 1995/96 HIECS survey were used. Ravallion argued that the use of the CPI for updating the base year poverty line may generate errors in the poverty trends since the construction of the CPI (based on goods) includes many items that clearly fall outside the typical consumption bundle of the poor in Egypt. An alternative source of price information is the set of implicit unit-value for food in the HIECS. The implicit prices are derived by dividing reported expenditures by quantities for each food item. These give the actual expenditures on a unit of consumption paid in each sector and date, and so they reflect the underlying differences in prices. The implicit food prices in the HIECS were used to determine the cost of the normative minimum diet in each sector and year to obtain the food consumption of the poverty line. As the unit value for non food items cannot be obtained, official CPIs were used to deflate non food poverty line.

Indicators of public expenditure on various sectors were derived from the government budget published annually by the Ministry of Finance (MOF). The data required for deriving indicators for national income accounts were provided directly by the Ministry of Planning (MOP). These data are regularly included in the successive follow-up reports. The eight indicators on resource flow imbalances were taken or derived from data available in the economic bulletin published by the National Bank of Egypt (NBE) and the annual report of the Central Bank of Egypt (CBE), with the exception of trade dependency (i.e. exports plus imports as % GDP) which was calculated from data provided directly by the Ministry of Planning. The indicators of GDP growth rates and per capita growth rates, as well as growth rates of exports, are calculated from data provided by the Ministry of Planning. Inflation indicators are derived from the statistical yearbook (different editions), published by CAPMAS. Finally, the indicators of taxes and budget surplus (deficit) were calculated from data provided directly by the Ministry of Finance.

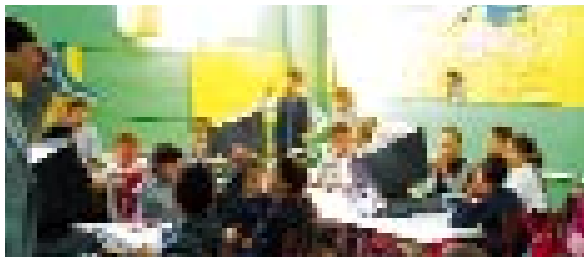
J. Participatory Development

The report presents the idea of public participation in local development, measuring it using indicators of public participation in political, social, and economic life at the national and governorate levels. The Ministry of Local Development and the Organization for Reconstruction and Development of the Egyptian Village (ORDEV) provide these types of data, such as public participation in the 2000 People's Assembly elections and the 2002 local elections. Public participation in infrastructure projects, as well as economic development projects supported by the Shorouk program for Village Development during the period 1994/95-2001/2002 are also provided.

In addition to participation-related indicators mentioned in other sections, this report includes the following participation-related indicators:

- political participation in the People's Assembly elections of 2000;
- political participation in the local elections of 2002;
- participation in social and personal activities(those who work in community services and social and personal services as % of total workers (15+);
- private sector craft workers as % of total workers (15+);
- informal sector workers as % of total workers (15+);
- % of public participation (investment) in economic development projects (Shorouk program);
- % of public participation (investment) in infrastructure projects (Shorouk program).

Human Development Indicators



National Indicators

N.1 Human Development Index

Life expectancy at birth (years)	2004	70.6
Adult literacy rate (15+) (%)	2004	65.7
Combined 1st. 2nd & 3rd-level gross enrolment ratio (%)	2003/04	74.2
Real GDP per capita (ppp $)	2003/04	4151.5
Life expectancy index	2004	0.8
Education index	2003/04	0.7
GDP index	2004	0.6
Human development index	2004	0.7

N.2 Profile of Human Development

Life expectancy at birth (years)			2004	70.6
Households with access to:	health services (%)	urban	2004	100.0
		rural	2004	99.0
	piped water (%)	total	2004	91.3
		rural	2004	82.1
	sanitation (%)	total	2004	93.6
Daily calorie supply per capita			2004	4258.0
Adult literacy rate (15+) (%)			2004	65.7
Combined basic & secondary enrolment ratio (%)			2003/04	90.9
Daily newspaper circulation (per 1000 households)			2004	53.9
Households with televisions (%)			2004	89.4
GDP per capita			2003/04	6142

N.3 Profile of Human Depreviation

			thousands
Populations without access to:	piped water	2004	6064.7
	sanitation	2004	4461.4
Children dying before age five		2004	28.6
Malnourished children under five		2004	8.6
Children not in basic or secondary school		2003/04	1631.2
Iliterates (15+)		2004	16223.3
Unemployed persons (15+):	total	2004	2153.8
	female	2004	1211.2
Poor persons:	total	2004	14144.0
	ultra	2004	3258.6

N.4 Trends in Human Development

Life expectancy at birth (years)	1976	55.0
	2004	70.6
Infant mortality rate (per 1000 live births)	1961	108.0
	2004	22.4
Households with access to piped water (%)	1976	70.9
	1996	81.4
	2004	91.3
Daily calorie supply per capita	1991	3700.0
	2003	4258.0
literacy (15+) (%)	1960	25.8
	2004	65.7
Combined basic & secondary enrolment ratio (%)	1960	42.0
	2003/04	90.9

N.5 Human Capital Formation

	year	total	female
● Literacy (15+) (%)	1960	25.8	12.5
	2004	65.7	56.2
● Basic & secondary enrolment ratio (%)	1959/61	42.0	32.1
	2003/04	90.9	88.0
● Professionals and technicians (% of labor force)	2004	24.5	30.4
● People (15+) with secondary or higher education (%)	2004	29.3	23.5
● Tertiary graduate ratio (% of corresponding age)	2002/03	5.1	4.9
● Science graduates (% of total graduates)	2002/03	27.1	30.7

N.6 Status of Women

● Life expectancy at birth (years)		2004	70.6
● Maternal mortality rate (per 100000 live birth)		2004	67.6
● Average age at first marriage		1969	19.8
		2003	26.1
● Gross enrolment ratio (%):	■ basic education	2003/04	94.0
	■ primary	2004	96.4
	■ preparatory	2004	95.1
	■ secondary education	2004	77.2
	■ tertiary education	2002/03	27.7
● Tertiary science enrolment (%)		2002/03	44.3
● Females with secondary or higher education (15+) (%)		2003	23.5
● Legislative & managerial staff (%)		2003	25.9
● Professional & technical staff (%)		2004	33.5
● Women in the labor force (%)		2004	23.9

N.7 Female - Male Gaps

● Life expectancy at birth (years)		2004	106.4
● Population		2004	95.5
		1960	30.0
● literacy (15+) (%)		2004	68.3
		1960/61	63.2
● Primary enrolment		2003/04	95.9
● Preparatory enrolment		2003/04	92.2
● Secondary enrolment		2003/04	99.3
● Tertiary enrolment & post-graduate		2002/03	83.8
● Labor force		2004	31.4

N.8 Rural - Urban Gaps

● Rural population (% of total)		1960	62.0
		2004	58.4
● Households with access to health sevices (%):	■ urban	2004	100.0
	■ rural	2004	99.0
● Households with access to piped water (%):	■ urban	2004	97.5
	■ rural	2004	82.1
● Households with access to sanitation (%):	■ urban	2004	99.6
	■ rural	2004	78.2
● Literacy (15+) (%):	■ urban	2004	84.6
	■ rural	2004	57.3
● Rural-urban disparity:	■ health services	2004	99.0
	■ piped water	2004	84.2
	■ sanitation	2004	78.5
	■ literacy	2004	67.7

N.9 Child Survival and Development

Pregnant women with prenatal care (%)		2004	70.5
Maternal mortality rate (per 100000 live birth)		2004	67.6
Infant mortality rate (per 1000 live births):	registered	1961	108.0
	adjusted	2004	22.4
Under five mortality rate (per 1000 live births):	registered	1961	204.0
	adjusted	2004	28.6
Children ever breastfed		2003	95.2
Birth attended by health personnel (%)		2004	71.7
Children 12-23 months old fully immunized (%)*		2003	99.6
Under weight below age 5 (%)		2003	1.3

* Those who received BCG, Measles, and three doses of DPT & Polio Vaccines

N.10 Health Profile

Households with access to:	health services (%)	urban	2004	100.0
		rural	2004	99.0
	piped water (%)	total	2004	91.3
		rural	2004	82.1
	sanitation (%)	total	2004	93.6
		rural	2004	78.2
Doctors per 10000 people (MOH)*			1982	5.4
			2004	8.9
Nurses per 10000 people (MOH)*			1982	9.1
			2004	14.7
Nurses/doctor ratio (%) (MOH)*			1982	169.0
			2004	165.2
Maternal mortality rate (per 100000 live birth)			2004	67.6
Beds for 10000 people:	total		2004	21.7
	MOH		2004	12.1
Health units per 100000 people			2004	3.8
Puplic expenditure on health:	% of total		2003/04	5.2
	% of GDP		2003/04	1.8

* Data in 1/ 1 / 2004

N.11 Education Flow

		total	females
Primary intake rate (%)	1959/61	68.60	57.4
	2003/04	94.9	95.9
Gross primary enrolment ratio (%)	1959/61	61.3	49.0
	2003/04	96.4	86.3
Primary repeaters (% of primary enrolment)*	2003/04	2.0	0.0
Transition to completers**	2002/03	99.6	0.0
Gross preparatory enrolment ratio (%)	1959/61	17.2	10.1
	2003/04	95.2	100.1
Preparatory repeaters (% of preparatory enrolment)	2003/04	11.9	0.0
Transition to completers	2002/03	88.9	0.0
Gross secondary enrolment ratio (%)	1959/61	17.1	8.4
	2003/04	77.2	0.0
Secondary repeaters (% of secondary enrolment)	2003/04	5.8	0.0
Tertiary enrolment ratio (%)	1959/61	9.5	3.3
	2003/04	29.2	27.7

* Primary repeaters without El-Azhar

** The source of percentage of transition to preparatory without El-Azhar from 2002/03 until 2003/04 is the Ministry of Education

N.12 Education Imbalances

● Primary pupil/teacher rate		2003/04	22.1
● Preparatory pupil/teacher rate		2003/04	20.1
● Class density:	■ primary	2003/04	40.9
	■ preparatory	2003/04	41.8
● Secondary technical (% of total secondary)		2003/04	59.1
● Tertiary science (% of total tertiary)		2002/03	27.8
● Public expenditure on education (% of total)		2003/04	14.7
● Public expenditure on education (% of GDP)		2003/04	5.1
● Public expenditure on pre-university education (% of all levels)		2003/04	73.2
● Public expenditure on higher education (% of all levels)		2003/04	26.8
● Basic & secondary enrolment (%):	■ government school	2003/04	84.7
	■ private school	2003/04	7.1
	■ El Azhar school	2002/03	8.4
● Unfit school buildings (%):	■ total	2003/04	21.4
	■ completely unfit	2004	10.0
	■ maintenance	2004	11.4

N.13 Communications

● Percentage of households with:	■ radio	2004	81.9
	■ television	2004	89.4
● Telephones (per 1000 households)		2004	364.0
● Average number of people served by one post office		2004	7099.0
● Number of cell phone subscribers (per 1000 people)		2004	108.0
● Number of Internet subscribers (per 1000 people)		2004	55.7

N.14 Labor Force

● Labor force (15+) (% of total population)		2004	29.8
● Females in the labor force (15+) (%)		2004	23.9
● labor force (15+) (%):	■ agriculture	2004	29.9
	■ industry	2004	12.4
	■ services	2004	57.8
● Wage earners (% labor force 15+):	■ total	2004	54.1
	■ female	2004	51.7
● Professionals/technicians:	■ total	2004	24.5
(% labor force 15+)	■ female	2004	42.0
● Employers in government/public sectors:	■ total	2004	33.9
(% of labor force 15+)	■ female	2004	45.7

N.15 Unemployment

● Unemployment rate (% of labor force):	■ total	2004	9.9
	■ female	2004	24.0
	■ urban	2004	10.1
	■ rural	2004	9.7
● Educational level unemployment rate:	■ below secondary	2004	0.9
(15+) (%)	■ secondary	2004	19.8
	■ university	2004	14.0
● Future labor force replacement ratio (%):	■ total	2004	190.1

N.16 Income Distribution, Poverty and Social Investment

GDP per capita (LE)		2003/04	6142.0
Income share of lowest 40%:	total	2004	20.3
	rural	2004	25.3
Ratio of highest 20% to lowest 40%:	total	2004	5.4
	rural	2004	3.2
Gini coefficient*:	total	2004	35.2
	rural	2004	23.2
The poor (as % of total population):	actual	2004	20.7
	ultra	2004	4.7
Wages of poor households:	% of their income	2004	42.0
	% of total wages	2004	8.64
Total public expenditure spent on (%):	education	2003/04	14.7
	health	2003/04	5.2
	social security	2003/04	11.4
	defense, security & justice	2002/03	13.8
Public expenditure on education (% of GDP)		2003/04	5.1
Public expenditure on health (% of GDP)		2003/04	1.8
Social security benefits (% of GDP)		2003/04	4.0
Public expenditure on defense (% of GDP)		2002/03	4.9

* Calculated by taking the average of Gini Coeff. of the Upper Rural and the Lower Rural

N.17 Urbanization

Urban population (% of total)	1986	44.0
	1996	42.6
	2003	42.5
Urban population annual growth rate (%)	1976/86	2.8
	1996/03	1.8
Population of largest city (% of total urban)	1996	26.1
	2003	69.4
Houses with electricity (%)	2003	98.8

N.18 Demographic Profile

Population (thousand)	1986	48254.0
	1996	59116.8
	2003	68648.0
Annual population growth rate (%)	1960/86	2.4
	1986/96	2.1
	1996/03	2.2
Population doubling date (current date)	year	2031
Total fertility rate	2002	3.5
Ratio of 2001 fertility to 1980 (%)	..	66.0
Contraceptive prevalence (%)	2004	60.0
Demographic dependancy ratio (%)	2003	70.0

N.19 Natural Resources

● Land area (thousand km²)	2003	1009449.9
● Population density (per km²)	2003	68.0
● Cultivated area:		
■ thousand feddans	2003	8113.2
■ % of land area	2003	3.4
■ persons per feddans	2003	8.5
● Irrigated land (% of cultivated area)	..	100.0
■ thousand feddans	2003	14473.6
■ % of cultivated area	2003	1.8
● Total water resources (billion m³)	2004	58.6
● Water consumption (% of total water resources)*	2003	71.9
● Internal renewable water (% of total water resources)	2003	96.9
● Per capita Internal renewable water (m³/year)	2003	860.0
● Water withdrawls by (%):		
■ agriculture	2003	78.9
■ municipal	2003	6.8
■ industrial	2003	14.0
■ navigation	2003	0.3
■ fish wealth	..	..
● Total fish catch (thousand tons)	2003	876.0
● Fish catch from (%):		
■ fresh water (Nile & Lake Naser)	2003	18.2
■ marine (Mediterranean & Red Sea)	2003	13.4
■ other lakes	2003	17.6
■ aqua culture	2003	50.8

*This ratio did not include the waste through evaporation of flat water and sanitation

N.20 Energy Consumption

● Total electricity consumption (billions of kw/hour)	2002/03	74.1
● Electricity consumption per capita (kw/hour)	2002/03	1090.4
● Total primary energy consumption (million tons of oil equivalent)	2002/03	50.5
● Primary energy consumption per capita (Kg of oil equivalent)	2002/03	751.0
● Commercial energy consumption from (%):		
■ oil product	2002/03	46.5
■ gas	2002/03	46.2
■ electricity	2002/03	5.6
● Primary energy consumed in Kg of oil equvalent (per 1000 LE of GDP)	2002/03	138.0
● Net primary energy imports (% of primary energy consumed)	2002/03	12.4
● Total final energy consumption (million tons of oil equivalent)	2002/03	35.6
● Final energy consumed from (%):		
■ oil product	2002/03	60.7
■ gas	2002/03	18.9
■ electricity	2002/03	17.9
■ coal	2002/03	2.5
● Final energy consumed by (%):		
■ industry*	2002/03	48.0
■ transportation	2002/03	28.0
■ agriculture	2002/03	1.0
■ households & commercial	2002/03	19.9
■ other	2002/03	3.1

* Including coal

N.21 Food Security

● Food production per capita index (99-2001=100)	2003	95.7
● Agricultural production (% of GDP)	2002/03	16.7
● Daily calorie per capita	1997	426.2
	2002	3960.0
● Shares in daily calorie per capita (%):		
■ vegetable production	1997	93.4
	2002	91.7
■ animal production	1997	6.1
	2002	7.6
■ fish production	1997	0.5
	2002	0.7
● Cereal imports (1000 metric tons)	2003	8118.7
● Food exports (% of food imports)	2003	22.0
● Food imports (% of merchandise exports)	2003	27.0
● Food self suffeciency ratio (%)	2003	82.5
● Food import dependency ratio (%)	2003	14.4

N.22 Resource Flow Imbalances

● Total civil external debt (% of GDP)		2002/03	40.8
● Civil external debt service ratio (% exports)		2002/03	7.0
● Workers' remittances from abroad (US$ millions)		2002/03	2945.7
● Exports/imports ratio (%)		2002/03	55.4
● Trade dependency (exports + imports) (% of GDP)		2002/03	28.4
● Current account balance (LE billions)		2002/03	(- 10.05)
● Gross international reserves including gold:	■ (US$ billions)	2002/03	14.8
	■ months of import coverage	2002/03	12.0

N.23 National Income Accounts

	1991/92	2004/05
● Total GDP at current market prices (LE billions)	139.1	536.4
● Agricultural product (% of GDP at factor cost)	16.5	16.1
● Industrial product (% of GDP at factor cost)	33.3	19.0
● Services (% of GDP at factor cost)	50.2	55.1
● Household consumption (% of GDP)	74.2	71.0
● Government consumption (% of GDP)	10.4	13.0
● Gross domestic investment (% of GDP)	18.2	17.7
● Gross domestic Saving (% of GDP)	15.4	15.2
● Tax revenue (% of GDP)	16.0	13.0
● Exports revenue (% of GDP)	29.0	31.0
● Imports payments (% of GDP)	31.8	32.6

N.24 Economic Performance

● GDP at a constant factor cost (LE billions)		1997/98	253.1
		2004/05	400.4
● Annual growth rate of real GDP (%)		1981/82 -1991/92	6.0
		1998/99 -2004/05	4.9
● Annual growth rate per capita GDP (%)		1981/82 -1991/92	3.6
		1998/99 -2004/05	5.9
● Consumer price index (1995/1996 =100):	■ urban	2004/05	134.3
	■ rural	2004/05	134.4
● Wholesale price index (1986/1987 = 100)		2004/05	486.1
● Annual growth rate of exports (%)		1981/82 -1991/92	(- 10.8)
		1997/98 -2004/05	9.1
● Annual growth rate of tax revenue (%)		1981/82 -1991/92	2.6
		1996/97 -2004/05	6.4
● Direct taxes (% of total)		2004/05	39.7
● Overall budget surplus/deficit as (% of GDP at market prices)		1996/97	(-0.9)
		2004/05	(-11.0)

N.25 Participation in Development

● Political Participation in election voting of registered district:	■ localities	2002	42.4
	■ people's assembly	2000	24.1
● Employees in social & personal services:	■ total	2001	2.2
	■ female	2001	2.1
● Basic & secondary enrolment in private schools (%)		2003	6.1
● Popular participation in Shorouk program: (% of projects)	■ infrastracture	1994/95-2001/02	28.8
	■ economic development	1994/95-2001/02	31.5
● Employees in handicraft activities : activities (% of labor force 15+)	■ total	2001	14.0
	■ female	2001	2.2
● Employees in informal sectors: (% of labor force)	■ total	2001	9.7
	■ female	2001	21.5

Governorate Indicators

G.1 Human Development Index

	Life expectancy at birth (years)	Adult literacy rate (+15)	Combined 1st, 2nd & 3rd level gross enrolment (%)	Real GDP per capita (ppp$)	Life expectancy index	Education index	GDP index	Human development index	Rank of Gov.
	2004	2004	2003/04	2003/04	2004	2004	2004	2004	2004
Cairo	71.2	81.2	78.5	7622.6	0.770	0.803	0.723	0.765	2
Alexandria	71.4	79.7	79.9	6047.4	0.773	0.798	0.685	0.752	4
Port Said	72.1	83.3	72.1	9070.3	0.785	0.796	0.752	0.778	1
Suez	71.7	79.9	78.8	6864.9	0.778	0.795	0.706	0.760	3
Urban Govs	71.6	80.8	78.6	7560.3	0.777	0.801	0.722	0.766	00
Damietta	72.0	88.3	77.5	4686.2	0.783	0.828	0.642	0.751	5
Dakahlia	71.2	6.5	76.5	3278.8	0.770	0.705	0.583	0.686	11
Sharkia	70.7	62.4	79.0	3135.1	0.762	0.679	0.575	0.672	13
Kalyoubia	72.1	68.7	67.8	4042.2	0.785	0.684	0.617	0.695	9
Kafr El-Sheikh	70.1	56.6	76.0	3776.7	0.752	0.631	0.606	0.663	14
Gharbia	71.7	69.6	75.3	3984.5	0.778	0.715	0.615	0.703	7
Menoufia	71.0	67.5	71.4	3158.2	0.767	0.688	0.576	0.677	12
Behera	71.0	56.0	72.0	3503.2	0.767	0.614	0.594	0.658	16
Ismailia	69.9	72.9	74.9	4490.1	0.748	0.735	0.635	0.706	6
Lower Egypt	71.0	64.9	74.3	3792.5	0.768	0.680	0.607	0.685	00
Urban	00	77.5	00	00	00	00	00	00	00
Rural	00	59.0	00	00	00	00	00	00	00
Giza	69.0	71.2	70.3	4613.1	0.733	0.709	0.639	0.694	10
Beni Suef	71.1	51.4	68.8	2497.3	0.768	0.572	0.537	0.626	18
Fayoum	69.0	47.8	67.3	2708.5	0.733	0.543	0.551	0.609	22
Menia	68.8	49.4	75.8	2935.8	0.730	0.582	0.564	0.625	19
Assiut	70.2	52.1	69.6	2255.7	0.753	0.579	0.520	0.617	21
Suhag	70.0	49.6	76.1	2457.6	0.750	0.584	0.534	0.623	20
Qena	70.0	50.1	80.7	2946.5	0.750	0.603	0.565	0.639	17
Luxor	69.4	60.9	83.4	2871.2	0.740	0.684	0.560	0.661	15
Aswan	70.7	70.3	78.4	3583.9	0.762	0.730	0.597	0.696	8
Upper Egypt	69.8	56.5	73.1	3757.7	0.747	0.620	0.605	0.657	00
Urban	00	75.8	00	00	00	00	00	00	00
Rural	00	44.9	00	00	00	00	00	00	00
Red Sea	70.7	79.7	59.6	00	0.762	0.730	00	00	00
New Valley	70.7	78.6	70.9	00	0.762	0.760	00	00	00
Matrouh	70.6	55.8	67.4	00	0.760	0.596	00	00	00
North Sinai	70.7	67.	49.3	00	0.762	0.617	00	00	00
South Sinai	70.6	75.9	54.8	00	0.760	0.689	00	00	00
Frontier Govs	70.6	70.3	58.9	00	0.761	0.665	00	00	00
Urban	00	80.1	00	00	00	00	00	00	00
Rural	00	53.2	00	00	00	00	00	00	00
Egypt	70.6	65.7	74.2	4151.5	0.760	0.685	0.622	0.689	00
Urban	00	78.6	00	00	00	00	00	00	00
Rural	00	53.2	00	00	00	00	00	00	00

G.2 Profile on Human Development

	Life expectancy at birth (years)	Households with access to		Literacy rate (15+) (%)	Combined basic and secondary enrolment (%)	GDP per capita (LE)	Households with		
		Piped water (%)	Sanitation (%)				Electricity (%)	Radio (%)	Television (%)
	2004	2004	2004	2004	2003/04	2003/04	2004	2004	2004
Cairo	71.2	99.9	99.9	81.2	99.4	11277.3	99.9	90.9	95.9
Alexandria	71.4	99.8	99.9	79.7	100.2	8946.9	99.5	87.9	93.7
Port Said	72.1	96.6	200.0	83.3	90.3	13419.1	99.8	93.1	97.6
Suez	71.7	99.8	100.0	79.9	96.1	10156.3	99.6	97.5	96.7
Urban Govs	71.6	99.8	99.9	80.8	99.1	11185.1	99.8	90.3	95.3
Damietta	72.0	99.3	99.4	88.3	97.9	6933	98.7	85.3	90.7
Dakahlia	71.2	90.2	99.3	67.5	94.8	4850.9	99.7	90.7	95.5
Sharkia	70.7	81.6	98.5	62.4	96.8	4638.2	97.3	75.4	86.2
Kalyoubia	72.1	94.6	98.7	68.7	85.4	5980.2	99.4	95.2	95.3
Kafr El-Sheikh	70.1	97.6	95.3	56.6	93.2	5587.5	98.9	78.2	85.6
Gharbia	71.7	95.5	97.4	69.6	93.5	5894.8	99.4	87.4	92.6
Menoufia	71.0	75.4	97.8	67.5	88.8	4672.4	98.7	88.6	88.8
Behera	71.0	80.1	97.2	56.0	89.2	5182.9	98.2	71.6	86.2
Ismailia	69.9	93.0	100.0	72.9	93.8	6642.9	99.3	91.3	94.9
Lower Egypt	71.1	89.6	98.2	64.9	92.1	5610.8	98.8	84.2	90.6
Urban	00	00	00	77.5	00	00	99.7	90.6	94.5
Rural	00	00	00	59.0	00	00	98.4	81.1	88.6
Giza	69.0	94.2	99.0	71.2	86.1	6824.9	99.3	92.3	93.1
Beni Suef	71.1	72.1	83.2	51.4	81.2	3694.6	91.1	50.8	78.8
Fayoum	69.0	79.6	81.4	47.8	80.1	4007.0	92.5	73.2	76
Menia	68.8	82.3	89.4	49.4	90.1	4343.3	93.1	57.8	78.6
Assiut	70.2	83.9	73.0	52.1	84.2	3337.1	92.9	66.6	78.4
Suhag	70.0	88.9	75.7	49.6	89.8	3635.9	94.6	66.2	83.9
Qena	70.0	89.6	86.3	50.1	94.9	4359.2	97.2	79.6	84.3
Luxor	69.4	88.3	88.1	60.9	98.1	4247.8	97.3	81.2	85.4
Aswan	70.7	94.2	88.4	70.3	97.0	5302.2	98.2	68.6	90.7
Upper Egypt	69.8	85.9	84.9	56.5	87.6	5559.3	95.4	73.3	84.2
Urban	00	00	00	75.8	00	00	99.1	85.8	93.2
Rural	00	00	00	44.9	00	00	93.4	66.3	79.1
Red Sea	70.7	83.7	99.6	79.7	70.7	8885.9	99.5	81.5	90.8
New Valley	70.7	97.8	98.5	78.6	80.6	6295.6	99.1	96.9	95.3
Matrouh	70.6	88.1	78.9	55.7	77.4	7064.1	75.4	71.9	61.3
North Sinai	70.7	92.8	91.2	67.9	52.5	6942.1	94.6	80.4	83.5
South Sinai	70.6	87.8	89.5	75.9	64.1	12819	96.6	82.3	84.1
Frontier Govs	70.7	90	91.6	70.3	66.1	8311.2	90.6	81.9	81.2
Urban	00	00	00	80.1	00	00	92.3	89.3	00
Rural	00	00	00	53.2	00	00	73.2	74.6	00
Egypt	70.6	91.3	93.6	65.7	90.9	6142	98.7	81.9	89.4
Urban	00	00	00	78.6	00	00	99.6	89.3	94.5
Rural	00	00	00	53.2	00	00	96.9	74.6	84.3

G.2 Profile on Human Development

	Thousands									
	People without access to		Children dying before age 5	Children not in basic or secondary schools	Illiterates (15+)	Poor persons		Malnourished children below age 5	Unemployed persons	
	Piped water	Sani-tation				Total	Ultra poor		Female	Total
	2004	2004	2004	2003/04	2004	2004	2004	2004	2004	2004
Cairo	6.7	6.7	3.9	9.4	802.2	687.0	136.9	00	125.0	224.7
Alexandria	7.3	3.7	1.3	1.8	438.8	435.2	73.1	00	36.9	67.5
Port Said	17.6	0.0	0.1	12.4	47.2	14.2	0.9	00	20.9	48.2
Suez	0.9	0.0	0.2	4.8	54.9	20.3	1.5	00	13.8	25.2
Urban Govs	32.7	10.4	5.5	24.5	1343.2	1156.8	212.4	5.7	196.6	365.6
Damietta	7.1	5.7	0.2	5.4	31.5	9.7	0.3	00	19.5	28.1
Dakahlia	461.3	30.9	1.6	62.7	1043.9	865.0	118.1	00	87.5	144.0
Sharkia	891.9	70.6	1.9	41.0	1251.0	811.1	103.4	00	85.9	176.0
Kalyoubia	200.4	46.4	1.1	148.2	766.3	465.9	88.2	00	62.4	116.3
Kafr El-Sheikh	59.7	115.2	0.6	46.4	752.5	173.9	17.9	00	61.4	113.3
Gharbia	170.1	96.1	1.1	64.5	754.8	398.7	63.4	00	108.1	158.4
Menoufia	758.8	66.4	1.0	95.9	670.2	679.5	90.8	00	52.3	107.1
Behera	889.8	123.2	1.1	135.4	1381.3	486.8	53.9	00	104.1	168.5
Ismailia	57.5	0.0	0.1	13.9	142.2	66.7	6.6	00	36.7	49.2
Lower Egypt	3496.4	554.5	8.9	613.5	6940.6	3957.3	542.5	6.2	617.9	1060.9
Urban	00	00	00	00	00	00	00	4.8	00	00
Rural	00	00	00	00	00	00	00	6.8	00	00
Giza	311.9	55.3	1.7	213.2	1008.6	1056.3	195.0	00	42.1	114.7
Beni Suef	594.4	357.0	1.3	117.3	738.0	1134.3	354.3	00	13.5	24.0
Fayoum	466.1	424.0	1.2	137.6	856.9	840.0	204.7	00	28.5	46.0
Menia	675.7	406.1	2.6	102.0	1381.9	965.8	182.4	00	83.4	160.8
Assiut	521.1	870.9	2.7	147.4	1101.4	1949.0	657.7	00	60.5	86.7
Suhag	399.6	873.3	2.1	104.3	1299.0	1704.7	509.8	00	47.8	81.5
Qena*	289.8	382.9	1.4	40.4	994.4	1105.1	338.4	00	60.1	101.0
Luxor	47.3	48.1	0.2	2.2	289.3	0.0	0.0	00	7.7	13.3
Aswan	62.2	124.9	0.5	9.0	78.9	275.0	61.5	00	36.2	69.2
Upper Egypt	3366.9	3541.6	13.7	873.4	7748.4	9030.0	2503.8	11.9	379.8	697.2
Urban	00	00	00	00	00	00	00	10.5	00	00
Rural	00	00	00	00	00	00	00	12.4	00	00
Red Sea	28.9	0.7	0.0	17.9	21.3	00	00	00	2.3	4.8
New Valley	3.6	2.5	0.1	9.9	20.8	00	00	00	3.8	4.4
Matrouh	29.8	52.9	0.1	18.2	77.6	00	00	00	4.3	8.3
North Sinai	21.0	25.7	0.1	66.3	62.4	00	00	00	5.3	10.4
South Sinai	7.6	6.5	0.0	7.5	9.2	00	00	00	1.2	2.2
Frontier Govs	90.8	88.1	0.4	119.8	191.2	00	00	00	16.9	30.1
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00
Egypt	6064.7	4461.4	28.6	1631.2	16223.3	14144.0	3258.6	8.6	1211.2	2153.8
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00

* Qena and luxor Combined

G.4 Trends on Human Development

	Life expectancy at birth (years)		Infant mortality (per 1000 live births)		Population with access to piped water (%)		Literacy rate (15+) (%)		Combined basic & secondary enrolment (%)	
	1976	2004	1961	2004	1976	2004	1960	2004	1960/61	2003/04
Cairo	57.0	71.2	151	30.6	91.1	99.9	48.9	81.2	58.9	99.4
Alexandria	59.1	71.4	139	22.8	94.9	99.8	45.3	79.7	57.6	100.2
Port Said	59.2	72.1	108	16.9	90.5	96.6	42.2	83.3	63.4	90.3
Suez	52.6	71.7	157	20.0	92.9	99.8	38.3	79.9	68	96.1
Urban Govs	57.6	71.6	147	22.6	92.3	99.8	46.9	80.8	59.1	99.1
Damietta	57.5	72.0	82	11.5	89.5	99.3	31.3	88.3	45.7	97.9
Dakahlia	56.9	71.2	71	17.5	77.4	90.2	27.9	67.5	42.9	94.8
Sharkia	54.6	70.7	72	18.7	72.8	91.6	21.5	62.4	36.3	96.8
Kalyoubia	53.9	72.1	137	16.6	62.3	94.6	24.8	68.7	43.4	85.4
Kafr El-Sheikh	56.6	70.1	60	13.6	73.2	97.6	15.3	56.6	23.2	93.2
Gharbia	55.5	71.7	107	17.8	76.0	95.5	25.3	69.6	45.2	93.5
Menoufia	54.8	71.0	130	16.6	71.2	75.4	24.2	67.5	46.2	88.8
Behera	56	71.0	77	12.2	47.8	80.1	18.8	56.0	28.1	89.2
Ismailia	57.7	69.9	99	18.1	56.3	93.0	29.2	72.9	52.7	93.8
Lower Egypt	55.6	71.1	93	15.8	69.2	89.6	23.1	64.9	38.9	92.1
Urban	00	00	00	00	80.8	00	00	77.5	00	00
Rural	00	00	00	00	65.0	00	00	59.0	00	00
Giza	55.2	69.0	126	15.6	61.1	94.2	27.9	71.2	45.8	86.1
Beni Suef	50.1	71.1	106	28.9	67.7	72.1	18.6	51.4	43.6	81.2
Fayoum	49.3	69.0	151	25.4	83.0	79.6	16.3	47.8	40.9	80.1
Menia	52.1	68.8	108	31.3	58.9	82.3	18.1	49.4	35.2	90.1
Assiut	53.2	70.2	107	39.7	58.4	83.9	17.4	52.1	37.8	84.2
Suhag	54.7	70.0	86	27.7	56.2	88.9	14.2	49.6	27	89.8
Qena*	*53.6	70.0	*80	26.0	*45.6	89.6	*13.5	50.1	28.7	94.9
Luxor	00	69.4	00	23.3	00	88.3	00	60.9	00	98.1
Aswan	51.4	70.7	109	26.2	67.0	94.2	20	70.3	45.8	97.0
Upper Egypt	53.0	69.8	102	25.8	60.4	85.9	17.8	56.5	36.5	87.6
Urban	00	00	00	00	72.4	00	00	75.8	00	00
Rural	00	00	00	00	55.2	00	00	44.9	00	00
Red Sea	00	70.7	114	14.6	77.5	83.7	37.7	79.7	00	70.7
New Valley	00	70.7	181	16.4	42.2	97.8	20.3	78.6	00	80.6
Matrouh	00	70.6	98	21.5	42.0	88.1	12.3	55.7	00	77.4
North Sinai	00	70.7	94	20.5	00	92.8	39.9	67.9	00	52.5
South Sinai	00	70.6	00	9.6	00	87.8	00	75.9	00	64.1
Frontier Govs	00	70.7	124	16.5	47.8	90.0	22.5	70.3	00	66.1
Urban	00	00	00	00	63.6	00	00	80.1	00	00
Rural	00	00	00	00	28.7	00	00	53.2	00	00
Egypt	55.0	70.6	108	22.4	70.9	91.3	25.8	65.7	42.0	90.9
Urban	00	00	00	00	84.2	00	00	78.6	00	00
Rural	00	00	00	00	60.6	00	00	53.2	00	00

* Qena and Luxor combined

G.5 Human Capital Formation

	literacy (15+) (%)		Combined basic & secondary enrolment (%)		Population (15+) with secondary or higher education (%)		Professional & technical staff (as percentage of Labor force (15+) (%)	
	Total	Female	Total	Female	Total	Female	Total	Female
	2004	2004	2003/04	2003/04	2004	2004	2004	2004
Cairo	81.2	69.2	99.4	100.0	43.5	38.9	43.0	63.0
Alexandria	79.7	68.0	100.2	99.4	36.4	33.2	30.5	60.8
Port Said	83.3	71.1	90.3	90.5	45.4	43.0	48.9	65.4
Suez	79.9	68.2	96.1	95.8	39.1	34.0	36.1	52.4
Urban Govs	80.8	68.9	99.1	99.2	41.3	37.2	39.4	62.3
Damietta	88.2	84.1	97.9	100.6	27.6	27.9	15.9	57.4
Dakahlia	67.5	57.6	94.8	97.3	29.8	25.6	21.4	42.6
Sharkia	62.4	53.2	96.8	100.7	26.7	21.1	24.8	36.3
Kalyoubia	68.7	58.7	85.4	87.1	29.5	24.4	25.3	48.5
Kafr El-Sheikh	56.6	48.3	93.2	91.3	24.4	18.8	17.6	37.0
Gharbia	69.6	59.4	93.5	92.7	31.9	26.7	21.5	28.4
Menoufia	67.5	57.6	88.8	86.7	30.0	24.1	25.8	32.4
Behera	56.0	47.8	89.2	85.0	22.3	16.2	16.8	26.6
Ismailia	72.9	62.2	93.8	92.1	33.3	28.5	27.7	43.0
Lower Egypt	64.9	55.4	92.1	92.2	28.0	22.9	21.9	35.0
Urban	77.5	66.1	00	00	39.0	35.0	35.9	46.6
Rural	59.0	50.3	00	00	23.4	17.8	16.8	27.2
Giza	71.2	60.7	86.1	83.5	32.8	27.1	28.9	69.3
Beni Suef	51.4	43.8	81.2	72.9	21.6	14.2	13.9	18.6
Fayoum	47.8	40.8	80.1	73.6	20.0	14.0	13.5	51.1
Menia	49.4	42.2	90.1	76.9	20.7	13.0	12.3	15.0
Assiut	52.1	44.4	84.2	77.7	22.8	15.2	18.3	46.7
Suhag	49.6	42.3	89.8	82.5	19.2	11.2	17.7	47.8
Qena	50.1	42.7	94.9	88.5	19.1	9.6	19.8	37.3
Luxor	60.9	51.9	98.1	97.1	24.3	15.6	20.2	35.8
Aswan	70.3	60.0	97.0	93.6	30.6	23.4	30.5	40.5
Upper Egypt	56.5	48.2	87.6	81.0	23.9	16.5	19.2	36.2
Urban	75.8	64.6	00	00	39.8	33.7	34.2	44.8
Rural	44.9	38.2	00	00	16.0	8.0	11.9	23.3
Red Sea	79.7	68.0	70.7	71.0	40.4	27.7	35.9	53.8
New Valley	78.6	67.0	80.6	77.5	38.8	31.2	43.4	60.8
Matrouh	55.7	47.5	77.4	64.9	17.3	11.2	30.9	61.9
North Sinai	67.9	57.9	52.5	37.9	29.8	22.0	42.9	64.0
South Sinai	75.9	64.7	64.1	64.1	39.0	22.8	31.1	41.0
Frontier Govs	70.3	60.0	66.1	55.0	30.9	21.9	37.6	58.8
Urban	80.1	68.3	00	00	39.0	30.3	39.0	71.4
Rural	53.2	45.4	00	00	20.0	11.0	35.0	35.0
Egypt	65.7	56.2	90.9	88.0	29.3	23.5	24.5	30.4
Urban	78.6	63.6	00	00	40.2	35.6	37.1	36.8
Rural	53.2	29.6	00	00	20.2	13.5	14.9	20.2

G.6 Status of Women

	Life expectancy at birth (years)	Maternal mortality rate (per100000 live births)	Average age at first marriage (years)	Gross enrolment ratios (%)				Females (15+) with secondary or higher education (%)	Professional & technical staff (% of females)	Woman in labor force (% of total)
				Total	Basic education		Secondary			
					Primary	Preparatory				
	2004	2004	2004	2003/04	2004	2004	2004	2004	2004	2004
Cairo	71.2	73	28.2	99.4	113.2	102.0	88.6	38.9	60.8	21.8
Alexandria	71.4	90	29.5	100.2	111.2	109.8	81.3	33.2	60.6	12.5
Port Said	72.1	60	27	90.3	95.9	89.0	93.2	43.0	70.3	32.6
Suez	71.7	72	26	96.1	102.9	92.2	98.8	34.0	73.8	23.3
Urban Govs	71.6	74	28.3	99.1	111.3	103.3	87.1	37.2	66.4	22.6
Damietta	72.0	73	25.0	97.9	102.3	101.9	109.0	27.9	59.5	16.7
Dakahlia	71.2	56	25.1	94.8	101.5	102.3	96.9	25.6	43.8	21.2
Sharkia	70.7	80	24.7	96.8	115.1	103.4	86.8	21.1	28.6	30.9
Kalyoubia	72.1	54	25.0	85.4	104.7	84.7	72.5	24.4	41.3	25.4
Kafr El-Sheikh	70.1	60	25.5	93.2	94.1	100.1	89.4	18.8	50.1	18.2
Gharbia	71.7	72	25.9	93.5	96.0	102.3	88.3	26.7	26.6	31.1
Menoufia	71.0	79	25.1	88.8	90.8	91.4	85.1	24.1	28.3	28.2
Behera	71.0	46	25.5	89.2	95.2	95.9	67.6	16.2	8.1	41.2
Ismailia	69.9	72	26.3	93.8	101.8	94.8	84.2	28.5	63.2	26.3
Lower Egypt	71.1	66	25.2	92.1	100.3	97.4	84.2	22.9	47.6	23.7
Urban	00	00	00	00	00	00	00	35.0	78.9	25.1
Rural	00	00	00	00	00	00	00	17.8	32.8	23.3
Giza	69	54	25.5	86.1	101.2	90.1	60.6	27.1	65.8	12.7
Beni Suef	71.1	65	23.3	81.2	85.1	74.4	57.3	14.2	15.3	28.4
Fayoum	69.0	70	23.5	80.1	80.2	80.0	64.7	14.0	48.0	14.3
Menia	68.8	85	23.5	90.1	87.7	80.8	62.7	13.0	14.5	24.9
Assiut	70.2	62	24.5	84.2	88.4	90.3	57.2	15.2	51.6	16.7
Suhag	70.0	69	24.3	89.8	89.8	98.9	64.0	11.2	40.0	15.2
Qena	70.0	77	24.4	94.9	93.2	100.7	80.2	9.6	21.7	23.0
Luxor	69.4	94	25.0	98.1	96.5	114.2	95.8	15.6	18.0	17.6
Aswan	70.7	85	26.0	97.0	95.2	108.9	88.3	21.4	69.2	18.5
Upper Egypt	69.8	73	24.4	87.6	90.9	89.9	64.8	16.5	48.8	17.2
Urban	00	00	00	00	00	00	00	33.7	90.2	22.8
Rural	00	00	00	00	00	00	00	8.0	23.5	14.3
Red Sea	70.7	43	27.6	70.7	69.6	78.1	77.7	27.7	47.6	19.2
New Valley	70.7	66	25.6	80.6	75.4	78.7	90.2	31.2	59.7	29.4
Matrouh	70.6	89	31.7	77.4	84.1	60.7	42.7	11.2	62.2	21.6
North Sinai	70.7	32	27.6	52.5	29.8	75.4	59.8	22.0	81.3	18.1
South Sinai	70.6	00	30.8	64.1	68.9	70.1	58.2	22.8	62.5	18.3
Frontier Govs	70.7	46	28.3	66.1	50.9	72.7	63.4	21.9	79.3	22.8
Urban	00	00	00	00	00	00	00	30.3	78.0	23.0
Rural	00	00	00	00	00	00	00	11.0	00	22.7
Egypt	70.6	68	26.1	90.9	96.4	95.1	77.2	23.5	33.5	23.9
Urban	00	00	00	00	00	00	00	35.6	00	24.5
Rural	00	00	00	00	00	00	00	13.5	00	19.6

G.7 Female - Male Gaps

	Life expectancy (Years)	Population	Literacy rate (15+)		Primary enrolment ratio		Preparatory enrolment	Secondary enrolment	Labor Force (15+)
	2004	2004	1960	2004	1960	2003/04	2002/03	2002/03	2004
Cairo	106.5	95.7	50	74.8	80.5	103.7	96.6	111.1	27.9
Alexandria	105.2	96.0	48	75.3	75.7	97.7	97.1	111.5	14.2
Port Said	106.1	95.3	50	78.7	83.7	102.4	94.9	104.0	48.5
Suez	106.6	95.5	40	72.2	69.1	101.4	90.0	111.6	30.4
Urban Govs	106.5	95.7	48	75.2	78.7	101.5	96.4	110.9	30.3
Damietta	106.8	95.8	44	81.6	79.6	98.0	94.0	141.3	20.1
Dakahlia	108.9	96.4	28	71.6	65.8	101.3	103.2	118.5	27.0
Sharkia	107.3	94.6	21	63.7	55.9	117.4	99.9	104.5	44.7
Kalyoubia	106.5	94.0	19	66.8	59.8	110.8	91.4	109.0	34.0
Kafr El-Sheikh	108.0	98.9	20	68.7	56.9	95.9	93.0	100.8	22.3
Gharbia	107.6	97.9	24	70.9	61.7	95.1	98.1	104.5	45.1
Menoufia	106.9	94.4	20	63.6	54.4	95.8	84.2	109.3	39.2
Behera	106.9	96.4	21	64.4	52.8	91.8	91.1	93.8	70.2
Ismailia	106.5	95.8	33	71.8	60.5	98.6	90.0	104.7	35.7
Lower Egypt	108.5	95.9	23	68.5	59.7	101.1	94.7	107.0	37.6
Urban	00	00	00	86.3	00	00	00	00	00
Rural	00	00	00	80.4	00	00	00	00	00
Giza	106.7	93.8	31	68.3	58.1	99.6	93.5	90.4	14.5
Beni Suef	106.5	95.8	20	60.4	69.4	84.8	78.3	91.6	39.7
Fayoum	105.1	92.8	26	55.8	74.2	91.3	83.9	86.7	16.6
Menia	106.1	95.6	23	59.9	54.2	85.2	84.1	74.0	33.2
Assiut	106.1	94.9	25	71.4	54.0	88.6	89.1	87.6	20.0
Suhag	104.6	95.5	18	59.1	35.8	88.9	88.9	81.1	18.0
Qena	106.8	98.8	*21	59.7	*53.1	98.6	74.7	58.4	29.8
Luxor	106.8	95.3	00	61.1	00	107.1	84.9	76.1	21.4
Aswan	106.8	99.7	22	68.1	60.9	96.6	92.2	88.3	22.7
Upper Egypt	106.7	95.4	23	63.0	55.6	90.7	87.9	84.9	24.0
Urban	00	00	00	85.5	00	00	00	00	00
Rural	00	00	00	76.5	00	00	00	00	00
Red Sea	106.8	76.4	54	45.7	00	93.9	88.3	122.2	23.8
New Valley	106.8	93.0	21	67.3	00	91.0	81.1	93.5	41.7
Matrouh	106.8	90.2	17	57.0	00	80.3	62.0	64.5	27.5
North Sinai	106.7	92.2	37	62.4	00	36.6	83.4	76.9	22.1
South Sinai	106.8	65.5	0.0	32.4	00	93.7	91.3	113.8	22.4
Frontier Govs	106.8	86.7	25	63.3	00	59.3	78.9	86.1	27.5
Urban	00	00	00	49.3	00	00	00	00	00
Rural	00	00	00	41.1	00	00	00	00	00
Egypt	106.4	95.5	30	68.3	63.2	95.9	92.2	99.3	31.4
Urban	00	00	00	81.5	00	00	00	00	00
Rural	00	00	00	51.9	00	00	00	00	00

* without El-Azhar education

G.8 Rural - Urban Gaps

	Rural population (% of total)		Percentage of households with acess to				Literacy (15+) (%)		Rural-urban disparity		
			Piped Water		Sanitation						
	Urban		Urban	Rural	Urban	Rural	Urban	Rural	Piped water	Sanitation	Literacy
	1960	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
Cairo	00	00	99.9	00	99.9	00	87.3	00	00	00	00
Alexandria	00	00	99.8	00	99.9	00	85.8	00	00	00	00
Port Said	00	00	98.6	00	100.0	00	89.6	00	00	00	00
Suez	00	00	99.8	00	100.0	00	86.0	00	00	00	00
Urban Govs	00	00	99.8	00	99.9	00	86.9	00	00	00	00
Damietta	75.1	71.8	97.8	92.8	100.0	99.1	82.9	72.3	94.9	99.1	87.2
Dakahlia	81.9	73.1	99.8	89.6	100.0	99.3	83.5	67.6	89.8	99.3	81.0
Sharkia	83.8	79.0	98.7	78.4	99.6	98.6	85.1	60.6	79.4	99.0	71.3
Kalyoubia	74.6	60.4	99.9	88.9	100.0	97.6	81.8	68.2	89.0	97.6	83.3
Kafr El-Sheikh	83.0	78.2	98.9	86.6	98.0	94.4	77.2	54.8	87.6	96.0	71.0
Gharbia	71.8	69.8	95.8	81.9	99.2	96.6	87.9	67.5	85.5	97.4	76.8
Menoufia	86.4	81.2	92.7	75.4	98.8	97.6	84.4	69.1	81.3	98.8	81.9
Behera	81.8	81.5	92.3	79.8	99.0	96.9	78.1	54.0	86.5	97.9	69.1
Ismailia	0.0	51.0	98.1	89.0	100.0	100.0	88.6	65.4	90.7	100.0	73.8
Lower Egypt	78.3	72.5	97.1	84.7	99.5	97.8	83.3	63.5	87.2	98.3	76.2
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Giza	67.6	41.3	98.6	87.0	99.8	98.1	86.6	64.7	88.2	98.3	74.7
Beni Suef	78.6	78.2	93.5	61.0	97.7	79.4	76.8	46.6	65.2	81.3	60.6
Fayoum	80.7	79.4	92.6	79.6	97.3	75.5	74.4	42.5	86.0	77.6	57.1
Menia	82.8	82.6	96.9	62.7	97.6	87.4	80.5	44.1	64.7	89.5	54.8
Assiut	78.2	74.6	99.4	78.1	96.4	61.5	79.2	44.2	78.6	63.8	55.9
Suhag	81.9	80.2	92.4	72.3	92.4	72.2	75.9	45.5	78.2	78.2	60.0
Qena*	86.3	80.4	98.1	85.2	95.4	83.4	75.6	46.5	86.9	87.5	61.5
Luxor	0.0	54.4	98.3	86.1	98.3	89.4	78.6	51.8	87.6	90.9	65.8
Aswan	74.6	58.8	97.4	88.5	97.7	81.0	83.3	68.5	90.9	83.0	82.2
Upper Egypt	00	00	96.4	75.8	97.9	81.1	81.5	48.3	78.7	82.8	59.3
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Red Sea	00	28.4	94.8	82.9	99.3	100.0	88.8	77.8	87.4	100.7	87.6
New Valley	00	52.6	99.2	97.6	96.7	100.0	92.9	75.2	98.4	103.4	80.9
Matrouh	00	46.2	93.9	76.8	97.5	48.0	70.8	46.1	81.8	49.2	65.2
North Sinai	00	42.9	99.8	85.9	99.8	69.7	87.7	49.1	86.1	69.8	56.0
South Sinai	00	51.9	96.4	85.2	92.5	84.3	98.8	54.1	88.4	91.1	54.7
Frontier Govs	00	43.3	96.8	85.7	97.3	79.7	86.2	59.1	88.5	81.9	68.6
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Egypt	62.0	58.4	97.5	82.1	99.6	78.2	84.6	57.3	84.2	78.5	67.7
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00

* Qena and Luxor combined

G.9 Child Survival and Development

	Pregnant women with prenatal Care (%)	Maternal mortality rate (Per 100000 live births)	Infant mortality rate (per 1000 live births)		Under five mortality rate (per 1000 live births)		Children ever breastfed (%)	Births attended by health personnel (%)	Children 12-23 months fully immunized (%)	Under weight (below age 5) (%)
			Registered	Adjusted	Registered	Adjusted				
	2004	2004	1961	2004	1961	2004	2003	2004	2003	2003
Cairo	00	73	151	30.6	24	37.0	92.2	73.5	99.5	11.7
Alexandria	00	90	139	22.8	216	26.8	94.9	74.6	99.9	9.5
Port Said	00	60	108	16.9	147	20.3	94.3	75.5	99.6	8.5
Suez	00	72	163	20.0	236	23.4	94.2	74.7	99.9	16.2
Urban Govs	85.6	73.8	147	22.6	231	26.6	94.7	73.4	99.5	11.5
Damietta	00	73	82	11.5	136	15.7	94.8	75.2	99.9	2.6
Dakahlia	00	56	71	17.5	179	23.2	94.9	74.7	99.3	3.2
Sharkia	00	80	72	18.7	159	25.3	100.0	74.6	99.7	3.6
Kalyoubia	00	54	133	16.6	297	20.8	95.0	75.3	99.7	6.2
Kafr El-Sheikh	00	60	60	13.6	125	18.1	95.3	75.0	98.8	9.7
Gharbia	00	72	107	17.8	215	22.0	95.3	73.7	99.5	3.3
Menoufia	00	79	130	16.6	275	21.6	95.2	70.2	99.5	7.8
Behera	00	46	77	12.2	158	16.7	94.9	64.7	99.8	3.7
Ismailia	00	72	99	18.1	161	23.5	95.0	75.5	99.7	3.1
Lower Egypt	76.7	65.7	93	15.8	194	20.3	94.0	76.0	99.6	4.8
Urban	88	00	00	00	00	00	92.2	00	00	00
Rural	72.3	00	00	00	00	00	94.7	00	00	00
Giza	00	54	126	15.6	254	21.0	100.0	71.3	99.9	13.9
Beni Suef	00	65	106	28.9	196	37.1	94.3	72.3	99.9	10.9
Fayoum	00	70	151	25.4	290	31.8	94.4	74.9	98.8	12.6
Menia	00	85	108	31.3	213	39.8	94.3	73.4	99.9	13
Assiut	00	62	107	39.7	207	49.8	95.0	56.5	99.7	21.7
Suhag	00	69	86	27.7	173	36.8	93.3	69.3	99.6	10.9
Qena*	00	77	*80	26.0	*154	34.4	95.0	74.5	99.4	4.6
Luxor	00	94	00	23.3	00	32.6	96.9	74.9	99.7	2.5
Aswan	00	85	109	26.2	191	32.1	96.0	75.1	99.7	2.1
Upper Egypt	58.5	73.4	102	25.8	199	34.6	96.5	56.7	99.7	10.2
Urban	79.4	00	00	00	00	00	96.1	00	00	00
Rural	51.3	00	00	00	00	00	96.6	00	00	00
Red Sea	00	43	191	14.6	266	19.1	94.8	75.2	97.2	17.5
New Valley	00	66	181	16.4	334	21.3	95.7	72.9	99.4	5.5
Matrouh	00	89	98	21.5	176	26.9	94.0	74.2	99.7	3.3
North Sinai	00	32	94	20.5	136	27.7	94.3	65.0	99.7	4.9
South Sinai	00	00	00	9.6	00	13.1	94.9	63.5	99.9	1.8
Frontier Govs	00	46	124	16.5	210	21.2	93.0	80.5	99.5	6.6
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00
Egypt	70.5	67.6	108	22.4	204	28.6	95.2	71.7	99.6	1.3
Urban	84.6	00	00	00	00	00	94.3	00	00	00
Rural	61.6	00	00	00	00	00	95.7	00	00	00

* Qena and Luxor combined

G.10 Health Profile

	Households with access to		*Doctors per 10000 People MOH	*Nurses per 10000 people MOH	Nurse/ doctors ratio MOH	Maternal mortality rate (per 100000 live births)	Beds per 10000 people		Health units per 100000 population
	Piped water (%)	Sanitation (%)					Total	MOH	
	2004	2004	2004	2004	2004	2004	2004	2004	2004
Cairo	99.9	99.9	9.4	6.9	73	73	45.5	13.8	6.4
Alexandria	99.8	99.9	13.2	14.0	106	90	29.1	11.4	3.0
Port Said	96.6	100.0	26.2	26.6	102	60	31.5	18.7	6.6
Suez	99.8	100.0	9.0	20.0	222	72	31.4	21.6	5.2
Urban Govs	99.8	99.9	00	00	00	74	32.2	15.1	3.5
Damietta	99.3	99.4	17.5	55.0	314	73	23.4	21.3	3.7
Dakahlia	90.2	99.3	12.6	13.7	109	56	21.3	12.8	4.8
Sharkia	81.6	98.5	6.4	13.0	203	80	16.1	8.8	3.0
Kalyoubia	94.6	98.7	5.0	12.4	248	54	25.3	17.3	3.1
Kafr El-Sheikh	97.6	95.3	9.3	19.2	206	60	12.9	10.5	2.2
Gharbia	95.5	97.4	17.0	30.8	181	72	23.3	12.5	4.1
Menoufia	75.4	97.8	8.0	19.1	239	79	17.4	11.0	3.5
Behera	80.1	97.2	5.1	18.7	367	46	11.3	8.6	2.2
Ismailia	93.0	100.0	8.2	18.2	222	72	26.6	15.0	4.0
Lower Egypt	89.6	98.2	00	00	00	66	17.3	10.2	2.7
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Giza	94.2	99.0	10.4	9.9	95	54	21.1	10.8	4.9
Beni Suef	72.1	83.2	7.7	14.6	190	65	11.7	10.4	2.6
Fayoum	79.6	81.4	4.0	13.1	328	70	10.5	8.9	1.8
Menia	82.3	89.4	5.2	9.4	181	85	14.3	11.1	2.6
Assiut	83.9	73.0	6.6	20.6	312	62	21.0	10.9	3.4
Suhag	88.9	75.7	5.1	5.0	98	69	12.5	10.2	2.7
Qena	89.6	86.3	4.8	5.0	104	77	11.1	10.1	2.6
Luxor	88.3	88.1	10.9	9.2	84	94	24.5	24.1	3.0
Aswan	94.2	88.4	11.1	15.0	135	85	22.7	13.9	5.3
Upper Egypt	85.6	84.9	00	00	00	73	18.6	10.5	3.0
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Red Sea	83.7	99.6	15.6	22.4	144	43	26.1	19.8	6.2
New Valley	97.8	98.5	16.7	74.0	443	66	52.0	46.1	11.8
Matrouh	88.1	78.9	13.2	26.4	200	89	36.0	33.8	7.2
North Sinai	92.8	91.2	18.6	26.6	143	32	18.0	16.3	4.5
South Sinai	87.8	89.5	32.9	50.4	153	00	78.1	71.7	16.1
Frontier Govs	90.0	91.6	00	00	00	46	40.7	24.6	9.5
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Egypt	91.3	93.6	8.9	14.7	165	68	21.7	12.1	3.8
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00

G.11 Education Flows

	Primary intake rate (%)		Gross primary enrolment ratio	* Primary repeaters (% of primary enrolment)	**Transition to preparatory (% of primary completers)	Preparatory enrolment ratio (%)	Preparatory repeaters (% of preparatory enrolment)	Transition to secondary (% of preparatory completers)	Secondary enrolment ratio	Secondary repeaters (% of secondary enrolment)
	Total	Female								
	2003/04	2003/04	2003/04	2003/04	2002/03	2003/04	2003/04	2002/03	2003/04	2003/04
Cairo	143.3	145.9	109.9	1.6	99.9	98.7	10.2	83.6	83.1	6.6
Alexandria	131.9	134.4	109.5	3.3	99.3	107.4	21.1	83.2	77.0	7.1
Port Said	119.8	125.1	92.8	2.0	99.9	86.6	4.2	93.1	88.8	6.3
Suez	128.0	131.5	100.4	2.2	102.2	90.7	15.3	93.9	93.4	7.8
Urban Govs	137.8	140.5	108.5	2.2	100.3	100.4	13.3	88.5	82.0	6.8
Damietta	113.4	113.4	102.0	2.6	99.8	95.3	16.4	96.1	93.1	4.8
Dakahlia	114.1	119.1	97.8	2.6	101.1	95.8	11.8	94.6	88.4	5.6
Sharkia	114.0	117.5	102.5	1.7	100.6	100.0	11.0	92.6	83.6	6.4
Kalyoubia	110.1	111.3	96.3	2.7	98.4	83.7	16.6	93.0	69.2	5.6
Kafr El-Sheikh	105.9	107.5	93.0	1.4	100.0	98.9	11.4	98.4	87.9	5.6
Gharbia	112.2	113.5	94.5	2.5	100.9	99.5	12.2	92.4	84.9	7.8
Menoufia	110.7	112.3	89.9	2.8	102.2	92.5	14.7	93.8	82.5	6.7
Behera	109.7	110.5	96.3	3.7	98.2	96.5	20.8	77.7	69.4	7.6
Ismailia	131.3	132.8	101.1	2.2	99.3	93.7	17.0	94.2	81.4	5.0
Lower Egypt	112.0	114.2	96.7	2.5	100.1	95.3	13.5	92.5	80.8	6.4
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00
Giza	126.2	129.6	98.7	2.0	98.0	88.6	14.9	77.9	63.7	7.7
Beni Suef	107.1	107.1	90.5	3.6	95.8	82.1	21.3	89.4	62.2	6.8
Fayoum	101.5	101.1	82.9	1.8	99.8	85.1	12.8	96.9	70.3	7.4
Menia	105.7	102.3	100.8	2.3	95.7	88.9	15.6	90.2	71.5	6.1
Assiut	100.6	99.5	91.5	2.4	101.2	94.7	17.3	91.6	61.6	7.3
Suhag	97.9	96.3	92.1	2.6	101.8	103.4	20.2	90.5	72.8	9.0
Qena	105.2	106.1	93.7	1.1	101.0	104.7	10.0	90.9	88.8	7.2
Luxor	101.9	107.6	92.5	1.1	100.3	113.0	12.6	94.1	95.2	10.0
Aswan	106.1	107.1	92.7	1.0	98.1	109.2	10.1	89.9	93.2	8.7
Upper Egypt	107.2	107.1	93.8	2.2	99.1	93.6	14.5	90.2	70.7	7.5
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00
Red Sea	83.1	85.6	68.6	3.2	108.7	76.6	20.4	96.0	68.9	4.6
New Valley	68.5	71.5	73.6	1.2	104.0	82.1	6.0	94.4	91.4	6.4
Matrouh	97.1	94.3	89.9	4.6	97.9	76.6	22.5	81.7	54.4	15.4
North Sinai	66.4	63.9	42.6	1.3	100.1	80.2	7.9	88.2	66.9	10.8
South Sinai	60.2	61.0	67.2	2.6	95.6	68.3	24.5	75.6	53.6	9.3
Frontier Govs	77.5	76.9	61.8	2.7	101.3	78.2	14.5	87.2	67.4	9.5
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00
Egypt	94.9	95.9	96.4	2.0	99.6	95.2	11.9	88.9	77.2	5.8
Urban	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00

* Primary repeaters without El-Azhar

** The source of percentage of transition to preparatory without El-Azhar from 2002/03 until 2003/04 is Ministry of Education

G.11 Education Flows

	Primary pupil/ teacher ratio	Preparatory pupil/ teacher ratio	Primary class density	Preparatory class density	Secondary technical enrolment (% of total secondary)	Basic & Secondary enrolment in			Percentage of unfit school buildings
						Public schools (%)	Private schools (%)	El-Azhar schools (%)	
	2003/04	2003/04	2003/04	2003/04	2002/03	2003/04	2003/04	2003/04	2003/04
Cairo	11.1	8.2	41.5	41.2	39.5	71.7	27.5	4.0	13.8
Alexandria	13.2	9.5	47.9	47.5	48.3	81.5	18.3	2.1	14.4
Port Said	4.6	3.5	33.8	37.0	58.7	90.4	6.9	2.9	17.1
Suez	8.2	6.8	37.2	35.9	63.7	87.8	9.3	3.5	20.5
Urban Govs	10.9	8.1	42.7	42.6	44.0	76.3	22.9	3.3	14.4
Damietta	6.0	5.8	37.1	38.3	58.3	91.0	3.5	5.3	20.4
Dakahlia	10.2	10.9	38.8	37.9	60.2	86.1	2.5	11.1	18.9
Sharkia	12.1	10.6	40.4	38.0	62.2	85.9	1.5	12.1	24.0
Kalyoubia	9.0	9.2	40.4	43.5	63.0	89.9	5.2	4.9	12.3
Kafr El-Sheikh	15.0	15.3	38.2	38.9	62.5	85.7	0.4	13.3	20.6
Gharbia	13.3	11.7	39.5	40.4	55.3	84.1	2.8	12.8	19.7
Menoufia	9.2	9.4	38.8	41.0	59.4	89.6	2.2	7.8	25.5
Behera	15.0	17.3	41.4	44.4	70.7	88.7	2.0	8.8	17.2
Ismailia	8.1	6.3	33.3	33.9	63.6	89.2	4.5	6.1	15.2
Lower Egypt	11.0	10.9	39.4	40.1	61.8	87.3	2.5	9.9	19.8
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Giza	15.7	15.4	46.9	48.9	49.7	77.4	19.2	5.4	18.9
Beni Suef	14.5	14.9	39.5	42.2	68.3	90.4	2.7	6.5	20.2
Fayoum	13.9	15.9	44.1	45.6	75.9	91.9	2.4	5.2	15.4
Menia	17.6	13.3	43.5	44.1	69.6	90.3	3.4	6.0	31.6
Assiut	14.4	14.0	44.4	42.9	60.6	86.7	2.7	10.3	27.2
Suhag	13.0	12.7	42.3	40.4	62.9	80.2	1.5	17.9	24.7
Qena	11.9	13.8	41.7	42.6	64.0	86.3	0.7	12.4	26.4
Luxor	9.8	11.7	38.4	40.5	71.1	85.3	2.5	11.9	36.4
Aswan	10.6	12.5	34.5	36.5	65.8	92.5	0.3	6.5	40.2
Upper Egypt	14.1	14.0	43.0	43.5	62.7	85.3	5.8	9.1	25.5
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Red Sea	7.6	6.6	30.5	29.5	57.9	91.4	2.7	5.5	17.0
New Valley	3.0	3.9	19.8	25.0	62.6	94.2	0.0	5.1	16.5
Matrouh	13.0	10.9	27.7	34.5	72.2	92.2	2.4	5.0	57.2
North Sinai	6.9	5.1	26.4	25.4	62.8	91.5	1.6	6.4	40.1
South Sinai	5.7	4.0	15.7	16.4	41.0	86.8	0.9	11.7	18.2
Frontier Govs	6.6	5.7	25.0	27.0	62.8	91.8	1.7	5.9	32.1
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00
Egypt	22.1	20.1	40.9	41.8	59.1	84.7	7.1	8.4	21.4
Urban	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00

G.13 Communications

	Percentage of housholds with		Telephones per 1000 households	Average number of People served by one post office	Number of cell phone subscribers per 1000 people	Number of internet subscribers per 1000 people
	Radio	Television				
	2004	2004	2004	2004	2004	2004
Cairo	90.9	95.9	485	00	00	00
Alexandria	87.9	93.7	382	00	00	00
Port Said	93.1	97.6	488	00	00	00
Suez	97.5	96.7	314	00	00	00
Urban Govs	90.3	95.3	447	00	00	00
Damietta	85.3	90.7	237	00	00	00
Dakahlia	90.7	95.5	99	00	00	00
Sharkia	75.4	86.2	108	00	00	00
Kalyoubia	95.2	95.3	145	00	00	00
Kafr El-Sheikh	78.2	85.6	67	00	00	00
Gharbia	87.4	92.6	151	00	00	00
Menoufia	88.6	88.8	117	00	00	00
Behera	71.6	86.2	72	00	00	00
Ismailia	91.3	94.9	207	00	00	00
Lower Egypt	84.2	90.6	116	00	00	00
Urban	90.6	94.5	00	00	00	00
Rural	81.1	88.9	00	00	00	00
Giza	92.3	93.1	318	00	00	00
Beni Suef	50.8	78.8	80	00	00	00
Fayoum	73.2	76.0	73	00	00	00
Menia	57.8	78.6	61	00	00	00
Assiut	66.6	78.4	79	00	00	00
Suhag	66.2	83.9	80	00	00	00
Qena	79.6	84.3	59	00	00	00
Luxor	81.2	85.4	291	00	00	00
Aswan	68.6	90.7	129	00	00	00
Upper Egypt	73.3	84.2	131	00	00	00
Urban	85.8	93.2	00	00	00	00
Rural	66.3	79.1	00	00	00	00
Red Sea	81.5	90.8	353	00	00	00
New Valley	96.9	95.3	271	00	00	00
Matrouh	71.9	61.3	239	00	00	00
North Sinai	80.4	83.5	220	00	00	00
South Sinai	82.3	84.1	498	00	00	00
Frontier Govs	81.9	81.2	277	00	00	00
Urban	89.3	00	00	00	00	00
Rural	74.6	00	00	00	00	00
Egypt	81.9	89.4	364	7099.0	108.0	55.7
Urban	89.3	94.5	00	00	00	00
Rural	74.6	84.3	00	00	00	00

G.14 Labor Force

	Force (15+) (% of total population)	Percentage of women in labor force (15+)	Percentage of labor force (15+)			Professional staff (% of labor force (15+)	Wage earners (% of labor force 15+)		Employees in Gov. & pulic sector (% of total labor force 15+)	
			Agriculture	Industry	Services		Total	Females	Total	Females
	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
Cairo	30.5	21.8	0.2	29.3	70.5	27.2	76.0	17.1	38.5	10.6
Alexandria	25.5	12.5	1.2	34.4	64.5	17.8	68.4	8.7	29.4	5.0
Port Said	37.7	32.3	1.7	14.0	84.3	20.2	75.3	28.1	44.0	18.7
Suez	29.5	23.3	1.3	42.0	56.6	16.5	82.6	16.1	44.2	11.2
Urban Govs	29.4	21.9	0.6	21.4	77.9	39.4	66.8	71.4	90.2	92.0
Damietta	29.5	16.3	36.4	24.6	39.0	10.7	50.0	10.4	21.4	8.2
Dakahlia	32.4	20.9	37.2	17.4	45.4	10.3	49.7	10.5	24.1	7.4
Sharkia	33.8	30.3	41.7	15.5	42.9	14.2	51.6	10.9	31.3	8.6
Kalyoubia	30.0	25.2	18.5	27.8	53.7	14.9	69.4	13.4	33.9	9.9
Kafr El-Sheikh	32.0	17.9	44.1	10.6	45.3	10.7	44.4	9.0	25.1	6.7
Gharbia	35.1	30.8	31.6	21.9	46.5	11.8	57.7	11.8	28.1	7.7
Menoufia	34.3	28.0	32.4	19.0	48.6	12.4	60.4	11.8	33.9	8.8
Behera	42.6	40.8	64.3	9.4	26.4	5.6	28.8	5.0	16.7	3.7
Ismailia	30.0	26.3	17.2	22.0	60.7	16.6	62.0	21.4	34.2	8.7
Lower Egypt	32.5	23.7	35.7	11.3	53.1	21.9	51.3	47.4	21.2	33.1
Urban	33.8	25.1	00	00	00	35.9	66.8	71.4	00	00
Rural	32.0	23.3	00	00	00	16.8	46.9	37.2	00	00
Giza	27.1	12.5	14.4	28.3	57.3	16.9	61.2	8.9	27.8	5.9
Beni Suef	32.2	28.0	53.1	14.3	32.6	7.3	40.3	7.5	19.5	4.7
Fayoum	28.5	14.0	45.8	16.8	37.4	9.4	50.3	7.1	22.4	5.9
Menia	31.6	24.5	57.4	11.6	31.1	7.4	46.0	4.4	19.1	3.3
Assiut	26.4	16.2	39.1	18.2	42.7	9.7	61.8	7.1	26.6	5.8
Suhag	23.7	14.9	40.6	14.4	44.9	10.7	51.3	5.5	24.7	4.4
Qena	26.4	22.5	43.8	18.4	37.8	10.1	53.7	4.5	27.1	3.5
Luxor	24.3	17.6	21.4	11.7	67.1	7.7	57.3	2.9	29.4	2.0
Aswan	28.7	18.2	39.0	14.8	46.2	13.2	57.2	7.8	30.2	5.6
Upper Egypt	26.8	17.2	38.1	9.3	52.6	19.2	50.2	44.8	21.6	39.1
Urban	29.2	22.8	00	00	00	34.2	62.8	69.0	00	00
Rural	25.7	14.3	00	00	00	11.9	42.6	26.1	00	00
Red Sea	30.2	19.2	3.8	8.6	87.7	16.5	90.5	15.7	59.7	11.6
New Valley	39.4	28.7	29.0	9.5	61.5	20.3	73.2	20.1	60.5	17.6
Matrouh	32.9	21.4	0.3	18.0	81.8	12.6	74.0	15.8	47.1	13.6
North Sinai	27.2	18.1	18.1	13.1	68.9	16.4	64.7	13.4	41.5	11.0
South Sinai	36.9	18.3	18.7	7.0	74.3	20.1	71.5	14.0	52.3	12.8
Frontier Govs	32.7	22.8	10.3	6.6	83.1	37.6	74.0	73.5	37.4	58.1
Urban	38.3	23.0	00	00	00	39.0	65.6	69.6	00	00
Rural	32.6	22.7	00	00	00	35.0	71.1	70.0	00	00
Egypt	29.8	23.9	29.9	12.4	57.8	24.5	54.1	51.7	33.9	45.7
Urban	32.0	24.5	00	00	00	37.1	65.5	70.3	00	00
Rural	28.2	19.6	00	00	00	14.9	45.4	34.3	00	00

G.15 Unemployment

	Unemployment rate (%)		Unemployment rate (%)		Unemployment rate by education (15+) (%)			Future labor force replacement ratio (%)
	Total	Female	Urban	Rural	Below secondary	Secondary	University	
	2004	2004	2004	2004	2004	2004	2004	2003
Cairo	9.7	24.7	9.7	0	1.2	12.1	12.2	138.5
Alexandria	7.1	30.9	7.1	0	1.6	13.1	8.6	145.8
Port Said	24.1	32.4	24.1	0	10.3	27.8	26.3	143.8
Suez	17.9	42.0	17.9	0	3.8	22.7	21.1	175.6
Urban Govs	7.6	19.7	7.2	00	1.9	11.3	9.3	142.3
Damietta	8.7	37.1	8.4	8.9	0.4	19.5	25.8	170.9
Dakahlia	9.2	26.7	8.8	9.3	0.2	19.7	17.2	178.3
Sharkia	10.4	16.7	12.8	9.7	0.3	23.5	16.9	197.3
Kalyoubia	10.2	21.7	13.0	8.3	0.3	18.7	16.5	185.8
Kafr El-Sheikh	14.0	42.3	18.0	12.6	0.2	27.6	25.3	191.7
Gharbia	11.7	25.9	15.2	10.2	0.4	21.9	20.7	174.7
Menoufia	9.9	17.2	13.6	8.9	0.4	18.7	16.6	186.2
Behera	8.6	13.0	17.4	7.0	0.2	25.5	21.7	196.3
Ismailia	19.4	55.0	23.4	15.8	0.9	35.1	23.9	183.5
Lower Egypt	11.4	25.3	13.1	10.8	0.7	23.1	16.9	186.5
Urban	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00
Giza	7.7	22.4	9.9	3.8	1.3	13.9	11.0	183.9
Beni Suef	3.4	6.8	8.7	1.8	0.1	8.6	14.7	240.6
Fayoum	6.8	30.0	10.8	5.6	0.2	15.2	14.2	243.4
Menia	12.9	27.2	19.9	11.0	0.1	31.4	26.8	235.4
Assiut	9.8	42.3	14.7	7.6	0.2	21.2	17.9	236.1
Suhag	9.2	36.4	13.6	7.8	0.1	23.5	20.5	233.6
Qena	13.3	35.2	19.6	11.2	0.7	24.3	24.7	233.2
Luxor	13.1	43.5	15.7	10.9	0.9	24.1	12.3	194.8
Aswan	21.9	62.9	29.9	14.1	1.6	31.8	24.5	199.1
Upper Egypt	9.1	24.4	11.4	8.0	0.3	20.4	16.3	221.7
Urban	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00
Red Sea	8.7	21.7	7.2	14.3	0	13.2	8.5	166.7
New Valley	6.7	20.2	9.1	4.3	0.6	8.9	8.1	186.7
Matrouh	9.7	23.2	15.3	1.7	0	15.5	19.6	214.5
North Sinai	12.7	35.6	15.9	6.2	0.0	24.3	5.5	215.8
South Sinai	9.4	27.9	5.4	14.2	2.4	16.4	4.9	171.0
Frontier Govs	8.5	20.4	8.8	2.0	1.9	11.1	11.4	197.5
Urban	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00
Egypt	9.9	24.0	10.1	9.7	0.9	19.8	14.0	190.1
Urban	10.7	00	00	00	00	00	00	00
Rural	9.2	00	00	00	00	00	00	00

G.16 Income Distribution and Poverty*

	Expenditure per capita (LE)	Income shares		Gini coefficient	Poor persons (% of total population)		Wages of poor households	
		Lowest 40% of people	Ratio of highest 20% to lowest 20%		Poor	Ultra Poor	% of total wages	% of income
	2004	2004	2004	2004	2004	2004	2004	2004
Cairo	4742	16.7	7.2	41.0	4.3	0.7	1.3	51.2
Alexandria	3847	18.9	6.1	38.1	9.4	2.1	3.3	53.8
Port Said	3100	21.4	4.3	30.9	8.8	2.3	2.4	39.8
Suez	3446	23.7	3.8	26.0	8.4	1.5	9.5	86.7
Urban Govs	4336	17.6	6.8	39.8	6.2	1.2	2.0	54.2
Damietta	3337	25.9	3.2	22.0	4.4	0.0	1.8	40.3
Dakahlia	2529	26.2	3.1	23.5	7.5	1.0	5.6	54.2
Sharkia	1871	28.2	2.5	18.8	28.8	4.5	18.0	39.2
Kalyoubia	2668	24.6	3.5	25.4	9.5	1.4	4.9	54.0
Kafr El-Sheikh	2585	22.6	4.1	29.8	9.9	1.4	6.2	29.8
Gharbia	3041	23.1	4.1	30.2	4.5	0.2	1.6	52.9
Menoufia	2305	26.5	3.0	22.4	15.0	0.8	5.8	51.0
Behera	2115	26.4	3.0	23.5	21.1	2.7	13.9	38.4
Ismailia	2973	25.7	3.2	21.7	12.6	2.0	7.2	70.5
Lower Egypt	2461	24.8	3.5	25.3	14.0	1.8	7.1	43.0
Urban	2980	21.3	4.7	32.3	9.1	0.9	4.8	47.6
Rural	2255	26.2	3.0	22.5	15.9	2.2	8.6	41.5
Giza	3490	17.3	7.0	42.3	14.0	2.3	7.4	54.9
Beni Suef	1804	24.1	3.6	25.9	43.7	12.3	26.1	37.8
Fayoum	2346	25.0	3.5	25.6	15.1	1.8	9.9	28.9
Menia	1845	24.5	3.4	24.8	38.2	10.2	31.1	41.4
Assiut	1489	25.0	3.4	24.6	61.0	24.9	49.2	42.1
Suhag	1687	24.8	3.4	25.3	45.8	13.0	32.2	37.1
Qena	2019	23.6	3.7	26.4	33.0	7.9	16.5	37.8
Luxor	2496	26.0	3.2	21.8	12.5	4.6	8.0	43.6
Aswan	2063	25.3	3.0	23.2	27.4	3.6	13.0	32.9
Upper Egypt	2202	22.6	4.4	29.6	34.0	9.6	18.7	40.4
Urban	3040	18.2	6.6	39.8	19.3	4.6	8.2	49.7
Rural	1803	24.6	3.4	24.9	41.1	12.0	30.5	38.3
Red Sea	00	00	00	00	00	00	00	00
New Valley	00	00	00	00	00	00	00	00
Matrouh	00	00	00	00	00	00	00	00
North Sinai	00	00	00	00	00	00	00	00
South Sinai	00	00	00	00	00	00	00	00
Frontier Govs	3599	23.8	3.4	25.5	5.4	00	00	00
Urban	3468	23.4	3.6	26.5	1.0	00	00	00
Rural	3784	24.6	3.1	23.4	11.6	00	00	00
Egypt	2716	20.3	5.4	35.2	20.2	4.7	8.7	42.0
Urban	3574	18.9	6.1	37.5	10.7	2.1	4.1	50.2
Rural	2061	25.4	3.2	23.6	27.4	6.6	16.9	39.2

* Results are based on preliminary data collected in July-December 2004 (half the year) of household Income Expenditure and Consumption Survey of 2004/05. The survey covers full year from July 2004 to June 2005.

G.17 Urbanization

	Urban population (% of total)			Urban population annual growth rate (%)		Population of largest city as (% of total urban)			Households with electricity (%)
	1986	1996	2003	1976/03	1996/03	1986	1996	2003	2003
Cairo	100.0	100.0	100.0	1.8	1.1	100.0	100.0	100.0	99.9
Alexandria	100.0	100.0	100.0	2.4	1.3	100.0	100.0	100.0	99.5
Port Said	100.0	100.0	100.0	4.3	1.6	100.0	100.0	100.0	99.8
Suez	100.0	100.0	100.0	5.4	2.5	100.0	100.0	100.0	99.6
Urban Govs	100.0	100	00	2.2	1.3	00	61.6	100.0	99.8
Damietta	25.2	27.4	29.6	2.7	3.0	47.8	31.2	32.2	98.7
Dakahlia	26.2	27.8	28.3	3.3	2.6	34.6	30.8	30.1	99.7
Sharkia	21.1	22.5	22.6	3.1	3.0	34.0	29.2	26.9	97.3
Kalyoubia	43.8	40.6	40.8	4.9	2.0	64.7	58.0	64.1	99.4
Kafr El-Sheikh	22.8	22.9	23.3	3.5	2.2	25.0	24.5	23.8	98.9
Gharbia	32.7	31.1	31.4	2.1	1.2	38.2	37.3	37.1	99.4
Menoufia	20.1	19.9	20.3	2.9	2.1	29.7	28.6	28.1	98.7
Behera	23.4	22.8	20.1	2.5	1.8	25.5	25.5	25.4	98.2
Ismailia	48.8	50.3	50.1	4.3	3.1	80.0	70.9	68.9	99.3
Lower Egypt	27.6	26.6	28.9	3.2	2.2	12.4	12.4	38.1	98.8
Urban	00	00	00	00	00	00	00	00	99.7
Rural	00	00	00	00	00	00	00	00	98.4
Giza	57.5	54.1	59.5	4.5	1.9	88.8	85.8	76.9	99.3
Beni Suef	25.1	23.5	23.4	2.8	1.9	41.9	39.2	38.0	91.1
Fayoum	23.2	22.5	22.3	2.7	2.2	59.2	58.4	56.5	92.5
Menia	20.8	19.4	19.2	2.5	1.6	32.6	31.3	29.9	93.1
Assiut	27.9	27.3	27.0	2.8	2.2	44.2	45.0	43.0	92.9
Suhag	22.0	21.7	21.4	2.7	2.4	24.8	25.1	25.0	94.6
Qena	23.4	*24.4	21.2	*3	*2.6	*23.9	30.0	29.3	97.2
Luxor	00	00	46.6	00	00	00	92.5	91.9	97.3
Aswan	39.6	42.6	42.4	3.2	2.6	59.8	52.9	52.2	98.2
Upper Egypt	31.7	30.8	30.8	3.4	2.1	34.5	33.2	55.1	95.4
Urban	00	00	00	00	00	00	00	00	99.1
Rural	00	00	00	00	00	00	00	00	93.4
Red Sea	85.5	74.7	72.2	4.7	4.4	30.8	30.7	31.5	99.5
New Valley	44.5	48.3	48.5	3.8	3.1	76.4	72.3	72.4	99.1
Matrouh	50.8	55.5	55.1	4.7	3.7	52.4	44.4	44.8	75.4
North Sinai	61.6	59.1	58.1	28.2	3.5	64.0	67.3	66.5	94.6
South Sinai	39.5	50.0	49.3	00	9.1	38.6	38.6	39.2	96.6
Frontier Govs	57.8	58.7	57.7	7.9	4.0	20.8	21.9	52.1	90.6
Urban	00	00	00	00	00	00	00	00	92.3
Rural	00	00	00	00	00	00	00	00	73.2
Egypt	44.0	42.6	42.5	2.8	1.8	28.6	26.1	69.4	98.8
Urban	00	00	00	00	00	00	00	00	99.6
Rural	00	00	00	00	00	00	00	00	96.9

* Average population density is estimated around 40068.6, 1016.8, 3546.3, 987.2, 4647.8, 1970, 41.2, 896.1 per km^2 in cairo, urban Govs, Kalyoubia, lower Egypt, Giza, \Upper Egypt, Frontier Govs and Egypt respectively

* * New land area is estimated around 1655 thousand feddans and its crop area about 2455.4 thousand feddans

G.18 Demographic Profile

	Population (thousands)			Annual population growth rate			Crude birth rate	Crude death rate	Contra-ceptive prevalence rate (%)	Net lifetime internal migration (% of total)	Population demo-graphic dependency ratio (%)
	1986	1996	2003	1960/86	1986/96	1996/03	2003	2003	2004	2003	2003
Cairo	6069	6813.2	7629.9	2.3	1.1	1.6	24.2	6.6	65.8	8.8	52.6
Alexandria	2927	3339.1	3755.9		1.3	1.7	24.0	6.6	66.2	7.5	54.7
Port Said	401	472.3	529.7	1.9	1.6	1.7	20.7	5.2	58.6	5.8	53.0
Suez	328	417.5	478.6	1.8	2.5	2.0	26.1	6.5	56.3	5.7	63.1
Urban Govs	9725	11042.1	12394.0	2.3	1.3	1.7	0.0	0.0	68.5	00	53.6
Damietta	740	913.6	1056.4	2.5	2.1	2.1	26.7	6.5	70.0	6.1	62.3
Dakahlia	3484	4223.9	4839.3	2.1	1.9	2.0	25.6	6.3	65.0	6.3	66.0
Sharkia	3414	4281.1	5009.6	2.4	2.3	2.3	27.2	6.3	63.7	5.6	72.3
Kalyoubia	2516	3301.2	3804.2	3.6	2.8	2.0	25.1	5.8	66.7	5.1	67.6
Kafr El-Sheikh	1809	2223.7	2541.2	2.4	2.1	1.9	25.4	6.1	67.0	5.3	69.4
Gharbia	2885	3406.0	3859.3	2.0	1.7	1.8	24.0	6.0	68.4	6.2	64.9
Menoufia	2221	2760.4	3171.0	1.9	2.2	2.0	24.8	6.1	65.0	5.5	70.3
Behera	3249	3994.3	4604.4	2.5	2.1	2.1	24.8	5.8	62.1	5.2	70.3
Ismailia	545	714.8	844.1	2.5	2.8	2.4	29.2	5.8	62.2	6.0	66.4
Lower Egypt	20863	25819.0	29729.4	2.4	2.2	2.0	00	00	65.2	00	68.4
Urban	5750	7252.2	00	3.3	2.2	00	00	00	66.3	00	00
Rural	15113	18566.8	00	2.1	2.2	00	00	00	64.8	00	00
Giza	3726	4784.1	5535.5	4.0	2.5	2.1	26.3	6.4	63.3	5.7	66.7
Beni Suef	1449	1859.2	2208.1	2.0	2.5	2.5	28.5	7.3	55.9	6.1	89.0
Fayoum	1551	1989.8	2371.8	2.4	2.5	2.5	27.9	6.2	53.2	5.3	88.9
Menia	2645	3310.1	3960.6	2.0	2.3	2.6	29.3	7.4	50.1	6.4	86.7
Assiut	2216	2802.3	3351.0	2.0	2.4	2.6	28.5	7.3	44.8	7.1	87.1
Suhag	2447	2914.9	3730.9	1.7	2.5	3.6	27.7	7.0	39.0	6.5	86.2
Qena	**2259	2442.0	2876.8	2.0	2.2	2.4	26.7	6.8	39.4	2.1	86.8
Luxor	00	361.1	414.4	2.9	1.9	2.0	25.0	6.8	38.8	6.8	71.6
Aswan	809	974.1	1098.9	2.9	1.9	1.7	26.1	6.2	46.5	4.9	72.9
Upper Egypt	17102	21437.6	25547.9	2.4	2.4	2.5	0.0	0.0	49.4	00	81.5
Urban	5415	6659.3	00	4.1	2.1	00	00	00	59.8	00	00
Rural	11687	14778.3	00	1.8	2.5	00	00	00	44.7	00	00
Red Sea	90	157.3	182.5	4.9	5.7	2.1	24.9	4.4	66.9	4.7	53.6
New Valley	113	141.8	166.2	4.7	2.3	2.3	26.7	5.1	55.7	4.0	69.0
Matrouh	161	212.0	262.2	1.7	2.8	3.1	36.3	8.4	63.5	4.6	75.2
North Sinai	171	252.2	302.0	5.4	4.0	2.6	30.3	6.4	60.8	4.9	75.6
South Sinai	29	54.8	63.7	00	6.6	2.2	26.1	4.1	55.8	4.9	55.7
Frontier Govs	564	818.1	976.6	3.8	3.8	2.6	0.0	0.0	59.4	00	68.5
Urban	326	480.2	00	1.6	3.9	00	00	00	00	00	00
Rural	238	337.9	00	00	3.6	00	00	00	00	00	00
Egypt	48254	59116.8	68648.0	2.4	2.1	2.2	0.0	0.0	60.0	6.3	70.0
Urban	21215	25433.8	00	3.0	1.8		00	00	65.5	00	00
Rural	27039	33683.0	00	2.0	2.3		00	00	55.9	00	00

* Qena and luxor combined

** New land area is estimated around 1655 thousand feddans and its crop area about 2455.4 thousand feddans

G.19 Natural Resources

	Land area km²	Population density (per km²)	Cultivated area		Person per feddan	Crop area	
			Thousand feddans	as % of land area		Thousand feddans	Crop cultivated land ratio
	2003	2003	2003	2003	2003	2003	2003
Cairo	3085	2473.2	16.8	2.3	454.2	20.9	1.2
Alexandria	2300	1633.0	243.0	44.4	15.5	463.1	1.9
Port Said	1351	392.0	26.7	8.3	19.8	56.3	2.1
Suez	9002	53.2	20.2	0.9	23.7	33.6	1.7
Urban Govs	15738	787.5	306.7	8.2	40.4	573.9	1.9
Damietta	910	1160.8	105.2	48.6	10.0	207.2	2.0
Dakahlia	3716	1302.3	635.9	71.9	7.6	1274.9	2.0
Sharkia	4911	1020.1	774.7	66.3	6.5	1470.2	1.9
Kalyoubia	1124	3384.5	191.4	71.5	19.9	332.5	1.7
Kafr El-Sheikh	3748	678.0	608.8	68.2	4.2	1118.8	1.8
Gharbia	1947	1981.7	393.5	84.9	9.8	736.3	1.9
Menoufia	2499	1268.9	395.3	66.5	8.0	729.0	1.8
Behera	9826	468.6	1177.9	50.3	3.9	2177.6	1.8
Ismailia	5067	166.6	209.4	17.4	4.0	340.0	1.6
Lower Egypt	33748	880.9	4492.1	55.9	6.6	8386.5	1.9
Urban	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00
Giza	13184	419.9	294.0	9.4	18.8	600.1	2.0
Beni Suef	10954	201.6	279.8	10.7	7.9	560.7	2.0
Fayoum	6068	390.9	434.6	30.1	5.5	776.8	1.8
Menia	32279	122.7	492.6	6.4	8.0	856.3	1.7
Assiut	25926	129.3	330.8	5.4	10.1	628.6	1.9
Suhag	11022	338.5	304.3	11.6	12.3	596.0	1.9
Qena	10798	266.4	327.0	12.7	8.8	443.2	1.3
Luxor	2410	171.9	43.5	7.6	7.1	66.3	1.5
Aswan	62726	17.5	155.7	1.0	9.5	201.9	1.3
Upper Egypt	175367	145.7	2662.3	6.4	9.6	4729.9	1.8
Urban	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00
Red Sea	119099	1.5	00	00	00	00	00
New Valley	440098	0.4	127.2	0.1	1.3	149.7	1.2
Matrouh	166563	1.6	336.6	0.8	0.8	435.1	1.3
North Sinai	27564	11.0	180.2	2.7	1.7	190.2	1.0
South Sinai	31272	2.0	8.1	0.1	7.9	8.3	1.0
Frontier Govs	784596	1.2	652.1	0.3	1.5	783.3	1.2
Urban	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00
Egypt	1009449.9	68.0	8113.2	3.4	8.5	14473.6	1.8
Urban	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00

* Average population density is estimated around 40068.6, 1016.8, 3546.3, 987.2, 4647.8, 1970, 41.2, 896.1 per km² in cairo, urban Govs, Kalyoubia, lower Egypt, Giza, \upper Egypt, Frontier Govs and Egypt respectively

* * New land area is estimated arounf 1655 thousand feddans and its crop area about 2455.4 thousand feddans

G.20 Development Participation

	Political participation in election voting (%) Registered district (%)		Social participation employees in social and personal services (% of labor force 15+)		Basic and secondary enrol-ment in the private sector	People's participation shorouk programme (1994/95-2001/02)		Participation in economic activites			
								worker in handicraft activities (% of labor force 15+)		worker in informal sector (% of labor force 15+)	
	In localities	People's assembly	Total	Female		Infrast. projects	Economic dev. Projects	Total	Females	Total	Females
	2002	2000	2001	2001	2003	2001	2001	2002	2001	2001	2001
Cairo	13.2	12.6	4.1	4.7	23.7	00	00	21.6	2.6	8.7	12.7
Alexandria	20.3	7.4	2.7	2.7	15.7	31.0	32.3	20.9	3.5	7.7	13.7
Port Said	57.0	22.2	1.9	1.0	6.0	37.9	23.0	9.9	2.2	9.9	16.8
Suez	15.6	17.9	1.3	0.7	8.0	48.2	28.0	17.5	1.2	9.2	18.0
Urban Govs	10.2	17.3	3.4	3.8	19.8	38.9	27.7	20.6	2.8	8.5	13.4
Damietta	57.7	25.7	1.2	0.7	3.0	26.1	41.6	30.3	18.1	6.5	18.9
Dakahlia	59.5	27.1	1.6	1.0	2.1	32.1	46.9	12.0	13.3	12.7	28.0
Sharkia	49.8	22.4	1.7	0.8	1.3	31.9	32.1	9.9	1.6	10.1	29.0
Kalyoubia	47.2	22.3	2.4	1.5	4.5	32.8	34.7	19.5	3.4	7.6	16.5
Kafr El-Sheikh	60.7	31.1	1.6	0.9	0.3	33.3	29.3	7.3	1.3	13.4	34.4
Gharbia	35.4	30.2	2.0	1.5	2.4	43.3	42.7	12.6	15.0	13.2	28.6
Menoufia	54.7	22.0	1.8	0.8	1.9	25.6	25.2	9.1	1.6	9.4	20.5
Behera	45.7	31.5	1.6	1.0	1.7	31.0	32.9	8.2	16.6	10.2	30.4
Ismailia	59.9	19.3	1.6	1.3	3.9	34.7	16.5	13.8	19.3	7.6	14.7
Lower Egypt	50.9	25.8	1.8	1.1	2.1	32.4	33.6	12.2	2.1	10.6	25.8
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Giza	64.7	26.1	3.9	4.8	16.6	31.2	41.6	21.6	3.0	5.3	8.7
Beni Suef	55.3	31.1	1.5	0.5	2.3	26.9	34.2	9.8	9.7	8.5	19.0
Fayoum	57.3	23.9	1.4	1.1	2.1	26.7	36.3	12.1	2.0	8.7	26.9
Menia	27.6	28.4	1.4	0.9	2.9	24.2	30.7	6.4	10.7	9.2	21.4
Assiut	46.8	26.8	1.4	0.8	2.3	26.5	25.9	6.9	0.9	11.9	30.6
Suhag	60.8	21.6	1.7	1.2	1.3	20.3	18.8	11.4	12.5	10.0	27.2
Qena	28.0	23.6	1.6	1.4	0.6	20.9	26.3	13.2	15.9	12.1	28.0
Luxor	23.5	20.9	2.0	1.2	2.2	22.7	28.9	16.2	14.1	12.8	30.4
Aswan	42.8	23.4	1.8	0.5	0.2	30.5	30.2	10.5	17.1	15.3	30.9
Upper Egypt	41.7	25.4	2.1	2.0	5.0	25.6	30.4	12.6	2.0	9.3	21.2
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Red Sea	38.4	27.3	1.4	2.5	2.4	00	47.4	13.4	11.6	20.0	53.7
New Valley	42.6	28.1	2.2	0.4	0.0	24.6	24.6	6.9	18.2	11.1	22.8
Matrouh	25.0	19.0	1.0	1.4	2.1	21.2	12.3	11.7	23.0	2.6	7.1
North Sinai	41.6	26.5	1.6	2.0	1.4	11.0	34.8	8.3	14.4	6.1	12.4
South Sinai	43.4	30.6	5.2	2.4	0.8	14.7	24.8	9.7	10.8	12.2	39.2
Frontier Govs	30.4	31.0	1.9	1.0	1.5	18	28.7	10.1	2.5	9.9	26.4
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00
Egypt	42.4	24.1	2.2	2.1	6.1	28.8	31.5	14.0	2.2	9.7	21.5
Urban	00	00	00	00	00	00	00	00	00	00	00
Rural	00	00	00	00	00	00	00	00	00	00	00