

EFA > PAVING THE WAY FOR ACTION

Education For All
in Africa

Nota Bene

The ideas and opinions expressed in this document are those of the authors and do not necessarily reflect the views of UNESCO.

The designations used in this publication and the presentations of data that figure herein do not imply that UNESCO has adopted any particular position with respect to the legal status of the countries, territories, towns or zones, their governing bodies or their frontiers or boundaries.

Sources of data :

> Schooling data

The bulk of the data (series up to 2002/03) was provided by the UNESCO Institute for Statistics (UIS). This concerns the Provisional dataset published in January 2005. Any more recent data (2003/04) come from joint actions between the ministries of education and the BREDA / Pôle de Dakar Sector Analysis Support Team. The United Nations tables are used as the reference for indicators that require population data, and these are often different from those used at the national level. This explains why there are some differences between the figures in this report and those in the national publications.

> Financial data

In addition to the information provided by UIS, data have also been used collected from research carried out by Pôle de Dakar and/or the World Bank (PSAST unit for the Africa Region) through the work with countries on education sector finance models.

> Survey data

A wide range of sources has been used, specific examples of which are UNICEF's MICS household surveys, and data and analysis from the CONFEMEN (Conference of Ministries of Education for Francophone Countries) PASEC program (Program for the Analysis of Education Systems in CONFEMEN countries).

In the interest of clarity, the specific source and exact year of the data are not always mentioned in the body of the text or in the «country sheets»; we invite the reader to refer to the «Tables» appendices for information about a particular item of data.

Care has been paid to the monitoring and consolidation of the data by the authors, especially when there were several sources for the same item of data.

The authors are aware that the balance of sources and analyses is weighted in favour of French-speaking African countries, as these countries are the main focus for the work of the Pôle de Dakar sector analysis unit. Nevertheless, efforts have been made to give the best possible coverage to the other linguistic areas.

Published by the UNESCO Regional Office in Dakar (BREDA)
BP 3311 Dakar Senegal

ISBN 92-9091-086-0
© UNESCO 2005

Photography (Senegal, April 2005)
© Thierry Bonnet
www.thierrybonnet.com

Graphic design and printing:
Polykrome, Dakar
www.polykrome.sn

Translation French > English: Eurotra, www.eurotra.net
and Marjorie Dhersigny-Leach for the
editorial and the executive summary



Regional Office for Education in Africa
www.dakar.unesco.org

Pôle de Dakar
Education sector analysis

www.poledakar.org

Foreword

In April 2000, the Dakar World Forum marked a decisive step forward in international commitment to the Education For All goals.

In the framework of the general mandate issued to UNESCO in its role as the overall coordinator for the Education For All movement, the Regional Office for Education in Africa (BREDA) is responsible for the continent-wide monitoring of the Dakar Forum's goals. One of the concrete benefits of BREDA's involvement has been its support for the development of national plans for Education For All.

A third of the way through the allotted time between the Dakar Forum and the 2015 deadline for most of the objectives of Education For All and the Millennium Development Goals, BREDA felt it was time for a first assessment of the actions undertaken.

This report has been prepared as a reference document for the Review on the Implementation of the Dakar Framework of Action on Education For All in Africa («Dakar + 5 African Forum»), organised by BREDA from June 13th to 15th 2005. In addition, it is also meant to contribute to the existing information, thoughts and on-going debates for the other international gatherings in this anniversary year and, ultimately, as a useful resource for everyone involved in education in Africa.

An electronic version of this report can be downloaded on the BREDA's website (www.unesco.dakar.org) and on the Pole de Dakar's website (www.poledakar.org).

The authors

Under the responsibility of BREDA's Director, Mrs Lalla Aicha Ben Barka, and Mr Benoit Sossou, the Head of the Literacy and Basic Education/Dakar Follow up Unit (LBE/DFU), the Pôle de Dakar's sector analysis team was responsible for drafting this report.

Pôle de Dakar is a platform of expertise on Education Sector Analysis attached to BREDA's LBE/DFU unit. The fruit of a partnership between the French Ministry of Foreign Affairs and UNESCO, the Pôle de Dakar has been working since 2001 to support the countries and their technical and financial partners in the analysis of education systems, the development of strategies and the monitoring of sector-wide education policies

The analysis and editorial team consisted of the following members:

For the Pôle de Dakar >

M. Paul COUSTERE, Coordinator of the Pôle de Dakar
M. Kokou AMELEWONOU (Specialist in Education Policies)
M. Mathieu BROSSARD (Specialist in Education Policies)
M^{me} Marie DORLEANS (Specialist in Education Policies)
M^{me} Elsa DURET (Specialist in Education Policies)
M^{me} Blandine LEDOUX (Specialist in Education Policies)
M. Nicolas REUGE (Specialist in Education Policies)

For UNESCO/BREDA's LBE/DFU unit >

M. Borel FOKO TAGNE (Specialist in Education Policies)
M. Francis NDEM (Specialist in Education Policies)

For the CREFEME in Rabat >

(Educational Evaluation and Management Research and Training Centre at the Université Mohammed V Souissi in Rabat)

M. Jean-Pierre JAROUSSE (Professor of Economics)



Acknowledgements

The management of BREDA and the Pôle de Dakar's editorial team gratefully acknowledge the help of the following organisations for their institutional, scientific, technical and financial support for this report and/or for their assistance with the organisation of the Dakar + 5 African Forum in June 2005:

- UNESCO's Paris headquarters, for their support and confidence: Mr. Koichiro Matsuura, Director-General of UNESCO, Mr. Nouredine Tidjani-Serpos, Assistant Director-General for Africa, and Mrs Aicha Bah Diallo, Assistant Director-General for Education, Mr. Nick Burnett, Director of the Education For All Global Monitoring Report and his team, especially Mrs Nicole Bella. We also acknowledge the help of Mr. Juma Shabani the Director of UNESCO's Harare office
- UNESCO/BREDA in Dakar, for their critical proof reading of this document: Mr. Aimé Damiba, Mr. Tunde Olayode, Mr. Teeluck Bhuwane, Mr. Luc Rukingama, Mrs Cristina Santos, Mr. Jean Bosco Ki ; and for their technical support: Mrs Ache Attimer, Administrative Assistant at the Pôle de Dakar and Mr. Gérald Sanspoux, head of visual communications at BREDA
- UNESCO Institute for Statistics (UIS) in Montreal, with which a special partnership was established, giving access to the most recent data at the time of publication. This includes Mrs Denise Lievesley, the Director and her team, especially Mr. Claude Akpabie, Mr. Said Belkachla, Mr. Michael Bruneforth, Mrs Rosario Garcia Calderon, Mr. Doug Drew, Mr. Simon Ellis, Mrs Alison Kennedy, Mr. Albert Motivans, Mr. Said Ould Voffal and Mrs Saly Sibó
- The French Ministry of Foreign Affairs in Paris, for their financial support in the preparation of this report: Mr. Laurent Fontaine, Deputy Director of Human Development and his deputy, Mr. Dominique Mas, as well as the head of the Department of Education Policies and Professional Training, Mr. Pierre Schraen and his team, especially Mrs Marion Ginolin
- The World Bank in Washington
 - For the financial support provided by the Norwegian Education Trust Fund : Mr. Birger Fredriksen;
 - The Policy Sector Analysis Support team of the Africa Region, for their technical support, especially the sharing of data: Mrs Jee-Peng Tan, (Lead Economist), Mr. Alain Mingat (Lead Economist) and Mr. Ramahatra Rakotomalala, and also the secretariat of the Fast Track Initiative, especially Mr. Luc-Charles Gacougnolle
- The Conference of Ministries of Education for Francophone Countries (CONFEMEN) in Dakar, for the sharing of data and quality analyses: Mrs Adiza Hima, Secretary-General, Mr. Jean-Marc Bernard, Head of the Program for the Analysis of Education Systems in CONFEMEN countries (PASEC) and his entire team, especially Mrs Odile Simon.
- The Intergovernmental Agency of Francophone Countries (AIF) in Paris: Mr. Samir Marzouki, Director of Education and Training, and Mr. Locha Mateso, Head of Basic Education
- The Association for the Development of Education in Africa (ADEA) in Paris: Mr. Mamadou Ndoye, Secretary-General
- CREST/INSEE in Paris, Mr. Luc Behaghel (economist)
- The following individuals: Mrs Marjorie Leach, translator (Dakar): Mr. Régis L'Hostis, Mr. Cheikh Tidiane Diao, Mr. Djibril Moctar Diallo, (graphic designers with the POLYKROME company);
- All those involved at the national level, in the Ministries of Education and the administrations involved in producing the Country Status Reports (CSR) in addition to all of the national teams and international experts who collaborate with the Pôle de Dakar, and who are too numerous to be mentioned individually here.

© UNESCO-BREDA 2005 - Education Pour Tous en Afrique : Repères pour l'Action



contents

CONTENTS.....	7
LIST OF ILLUSTRATIONS.....	10
EDITORIAL.....	14
EXECUTIVE SUMMARY.....	16
GUIDE TO READING THIS REPORT.....	27
INTRODUCTORY CHAPTER.....	28
SECTION 1 : EDUCATION - THE SPRINGBOARD FOR ECONOMIC AND SOCIAL DEVELOPMENT IN AFRICA	35
1.1 ECONOMIC JUSTIFICATIONS FOR EDUCATIONAL INVESTMENTS.....	37
1.1.1 Education as a growth vehicle of economies	37
1.1.1.1 <i>The impact of education stock on growth</i>	38
1.1.1.2 <i>The impact of the distribution of education on growth</i>	39
1.1.1.3 <i>The impact of the quality of education on growth</i>	44
1.1.2 Education - stake and driving force of structural changes in African economies	45
1.2 EDUCATION AND HUMAN DEVELOPMENT.....	49
1.2.1 The impact of education on the retention of literacy in adult life	50
1.2.2 The impact of education on poverty	52
1.2.2.1 <i>Alleviating the risk of poverty</i>	52
1.2.2.2 <i>Breaking the intergenerational vicious circle of poverty</i>	52
1.2.3 Education's impact on population and health variables	53
1.2.3.1 <i>Encouraging demographic transition and reducing the dependency rate</i>	54
1.2.3.2 <i>Improving maternal and child health</i>	54
1.3 HOW CAN PUBLIC FUNDING FOR EDUCATION BE JUSTIFIED?.....	56
1.3.1 Reverting to the characteristics of education as a good	56
1.3.2 Basic education has public good status that justifies collective funding	57
1.3.3 Other levels of education have a mixed status that leads to some deliberation on the selectiveness of public funding	57
1.3.4 Conclusion	58

SECTION 2: CURRENT SITUATION AND THE DYNAMICS OF EDUCATION SYSTEMS

61

2.1	STATUS OF ENROLMENT IN AFRICA.....	63
2.1.1	Dakar's central goal: primary education. Can we meet the challenge of Universal Primary Education by 2015?	63
2.1.1.1	<i>Educational coverage</i>	63
2.1.1.2	<i>Education systems with persistent inequalities</i>	67
2.1.1.3	<i>Quality indicators</i>	68
2.1.2	Literacy and the other cycles of education	72
2.1.2.1	<i>Literacy: changes that are difficult to measure</i>	72
2.1.2.2	<i>Pre-primary education - a slowly developing level</i>	74
2.1.2.3	<i>Secondary education: a substantial change</i>	75
2.1.2.4	<i>Technical/vocational enrolment are often unrelated to economic realities...</i>	77
2.1.2.5	<i>... as well as higher education</i>	79
2.1.3	Synthesis	81
2.1.3.1	<i>The EFA African Development Index</i>	81
2.1.3.2	<i>The african pyramid and how it breaks down</i>	84
2.2	CURRENT DYNAMICS: ON TRACK FOR UPE?.....	96
2.2.1	Changes in pupil numbers: a priority with little impact on primary education	96
2.2.2	Flow management: survival and transition	100
2.2.2.1	<i>Changes in primary survival and in transition to secondary school</i>	101
2.2.2.2	<i>Survival versus transition</i>	102
2.2.2.3	<i>Managing flows in secondary education</i>	103
2.2.3	On track for Universal Primary Education in 2015?	104

SECTION 3: ACHIEVING RESULTS: OPTIONS AND PRIORITIES FOR PUBLIC POLICIES

109

3.1	ADEQUATE MOBILIZATION OF RESOURCES: A BUDGETARY PRIORITY FOR EDUCATION CONSISTENT WITH COMMITMENTS TO «EDUCATION FOR ALL».....	111
3.2	A GENUINE EFFICIENT SECTOR-WIDE POLICY: CREDIBLE AND SUSTAINABLE POLICY CHOICES.....	114
3.2.1	Choosing the distribution of expenditure by level: adapting the intra-sector trade-off to the common good	116
3.2.1.1	<i>The distribution of resources by level is very variable across countries...</i>	117
3.2.1.2	<i>...and the priority for primary education varies from one country to another</i>	118
3.2.1.3	<i>Options for increasing the primary share in the countries far from Universal Primary Enrolment</i>	119
3.2.2	Refining the choice between the number of pupils and expenditure per pupil to achieve a quality Universal Primary Enrolment	119
3.2.2.1	<i>Choices in terms of quantity/unit cost trade-off are extremely variable from one country to another</i>	120
3.2.2.2	Identifying the room for manoeuvre as regards increase in expenditure allocated to primary education and reduction of the unit cost	121
3.2.2.3	<i>Simulation of funding gap if the policy parameters on the resources available as % of GDP and on the unit cost remain unchanged</i>	122
3.2.3	Trade-off inside the unit cost for more and better enrolment	123
3.2.3.1	<i>Country-Specific Expenditure Allocations</i>	124
3.2.3.2	<i>Identification of rooms for manoeuvre within unit cost for the 3 spending items</i>	125
3.2.4	Managing the student flow to prevent the system from adjusting itself to a sum of individual interest different from the common good	129
3.2.4.1	<i>In-cycle student flow management: impact of the repetition rate and survival rate</i>	129
3.2.4.2	<i>Cross-cycle student flow management: the need to back up education system management by public policies to reshape the education pyramid</i>	131
3.3	AN EFFICIENT MANAGEMENT OF EDUCATION SYSTEMS FOR THE SUCCESSFUL IMPLEMENTATION OF QUALITY EDUCATION.....	135
3.3.1	The search for equity when allocating school resources	135

3.3.1.1	<i>First lever: matching resources with needs</i>	135
3.3.1.2	<i>Second lever: optimising student grouping</i>	138
3.3.2	The search for a better transformation of resources into results	142
3.3.2.1	<i>The influence of the socio-economic factors and of the local context on results: reducing the initial situational disparities</i>	143
3.3.2.2	<i>The influence of school inputs factors on results: identifying the winning combination</i>	144
3.3.2.3	<i>The fundamental role of the teacher: deciphering class teaching practises</i>	145
3.3.3	Results-based management: a necessity	147
3.4	CONCLUSION: EDUCATION SYSTEMS CAN CHANGE THEIR SCALE OF OPERATION IN AFRICA.....	149

SECTION 4: TRENDS IN EXTERNAL SUPPORT - A DIFFICULT TRANSITION FROM THEORY TO PRACTICE 153

4.1	AN INTERNATIONAL AWARENESS.....	154
4.2	... FOLLOWED BY AN INCREASE IN OFFICIAL DEVELOPMENT AID (ODA).....	154
4.2.1	Overall Level and Africa's contribution	154
4.2.2	For Africa, an increased share of education in public development aid, but uncertainty over the proportion allocated to basic education	155
4.3	...BASED ON A NEW DEVELOPMENT PARTNERSHIP.....	156
4.4	... AND MATERIALISED BY THE IMPLEMENTATION OF THE FAST TRACK INITIATIVE.....	159
4.4.1	A progressive convergence of the estimates of the external funding need of UPE by 2015...	160
4.4.2	... which validates the chosen method...	160
4.4.3	... for a goal within reach of the ODA	160
4.5	WHAT LESSONS FOR THE IMPLEMENTATION OF INTERNATIONAL SOLIDARITY FOR REACHING THE EDUCATION FOR ALL GOALS?.....	161

CONCLUSION: FROM TECHNICAL ISSUES TO POLITICS AND POLICIES : TOWARDS A PACT FOR EDUCATION WHICH SERVES THE GENERAL INTEREST. 163

5.1	RESPONSES TO MEET THE CHALLENGE.....	164
5.2	THE POLITICAL ECONOMICS OF THE SUCCESS OF THE EFA GOALS.....	165
5.3	CLARIFYING THE PACT FOR EDUCATION ESTABLISHED AT DAKAR.....	166
5.4	THE IMPLEMENTATION OF THE PACT FOR EDUCATION AT THE NATIONAL LEVEL: A PUBLIC RESPONSIBILITY.....	166
5.4.1	Public responsibility and the variety of solutions for the provision of educational services:	166
5.4.1.1	<i>A decision-making structure for choosing a system of provision...</i>	167
5.4.1.2	<i>... that is appropriate for the situation and issues relating to education in Africa</i>	167
5.4.2	Ensuring the monitoring of the public education service	168
5.4.2.1	<i>An outline for the definition of responsibilities</i>	168
5.4.2.2	<i>Limits to the application of this outline of responsibility in the context of poverty and possible adjustments</i>	169
5.4.3	Evaluation in support of the implementation of the social pact for education	170

COUNTRY SHEETS..... 173

GUIDELINES FOR READING THE COUNTRY PROFILES..... 174

GUIDELINES FOR READING THE EDUCATIONAL PYRAMIDS..... 178

SUMMARY STATISTICAL TABLES..... 287

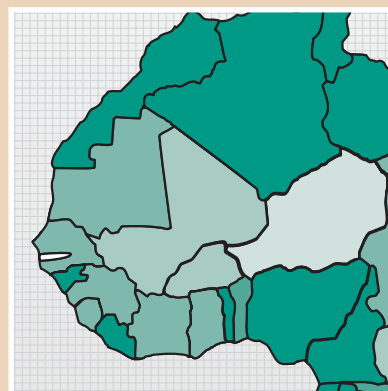
LIST OF ABBREVIATIONS AND ACRONYMS - APPENDIXES..... 293

BIBLIOGRAPHY..... 296

› List of illustrations

› Maps

Map 2.1 : Variety in the supply of places in 1990/91...	63
Map 2.2 : ...which remains in 2002/03 (or close)	63
Map 2.3 : Primary completion rates in Africa in 1990/91	65
Map 2.4 : Primary completion rates in Africa in 2002/03 (or close)	65
Map 2.5 : Literacy rates 2000-2004 estimates	72
Map 2.6 : Pre-primary gross enrolment ratio in 2002/03 or close	74
Map 2.7 : Gross enrolment ratio for the African countries in 1990/91	75
Map 2.8 : Gross enrolment ratio for the African countries in 2002/03 or close	75



› Insets

Inset 1.1 : Education and growth, economic literature review	37
Inset 1.2 : Measurement of inequalities in the distribution of education expenditure	41
Inset 1.3 : The external return on education in Senegal	46
Inset 1.4 : Rates of social and private returns on education	47
Inset 1.5 : Why is the goal of education important to achieve the other Millennium Development Goals (MDGs)?	50
Inset 1.6 : Education of women at the heart of transformations in society	53
Inset 2.1 : Calculating the EFA African development and EFA+ indices	82
Inset 2.2 : Interpreting the educational pyramids	84
Inset 2.3 : Projection method	105
Inset 3.1 : Note relative to graph 3.4	117
Inset 3.2 : GER-UC trade-off, example of primary education	120
Inset 3.3 : Trade-off within a specific unit cost	123
Inset 3.4 : Quantitative impact of recruitment of non-civil servant teachers	128
Inset 3.5 : Degree of randomness in teachers' allocation to individual schools	136
Inset 3.6 : Definition of student grouping methods in different countries	140
Inset 4.1 : The program-based approach	157
Inset 4.2 : Some key items of the Fast Track Initiative («FTI»)	159

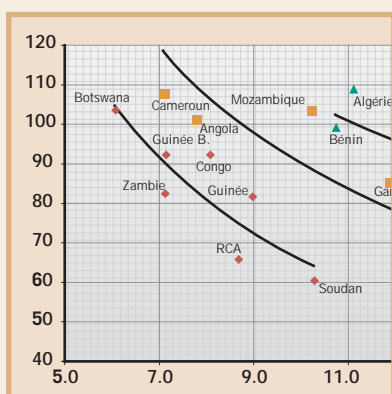
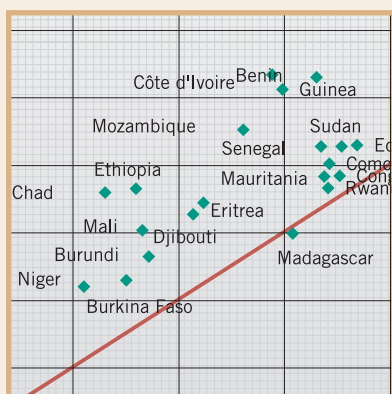
Two opposing approaches describe the mechanism by which education contributes to wealth creation

The first one considers that **education is a factor of additional material**

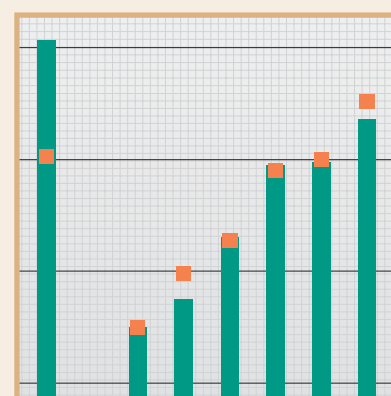
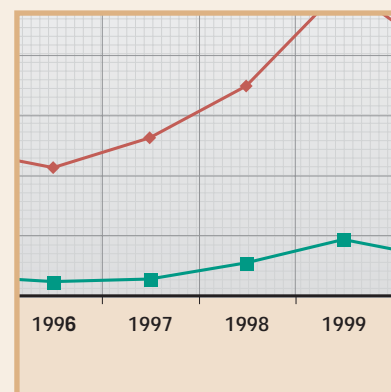
The second one considers that **education is at the heart of dynamic learning phenomena**

> Graphs

- Graph 1.1 : Illustration of the relationship between the human capital stock and growth according to education levels 39
- Graph 1.2 : Progress towards UPE and educational expenditure equity 42
- Graph 1.3 : Quality: differences between countries and individuals 44
- Graph 1.4 : Proportion of adults (22-24 years) who can read with ease after three, six or eight years of schooling in 22 African countries 51
- Graph 1.5 : The relationship between primary completion and literacy for adults who are 15 years or older in 25 African countries 51
- Graph 1.6 : The probability of belonging to the poorest 40% according to the head of the household's level of education attainment 6 African countries 52
- Graph 2.1 : GER in primary education and access rate to the last grade of primary education (PCR) in 2002/03 or close 64
- Graph 2.2 : Relationship between apparent intake rate and survival rate in 2002/03 or close 66
- Graph 2.3 : Comparison of boy/girl primary completion rate, 2002/03 or close 67
- Graph 2.4 : Comparison of the AEQI and «MICS» indicators for 10 African countries 70
- Graph 2.5 : Differences between countries on a perfectible but comparable measure of quality (AEQI+) 71
- Graph 2.6 : Growth of the literacy rate (15 years +, %) 73
- Graph 2.7 : Literacy rate (15 years +) for women vs. men, 2000-2004 estimates (%) 74
- Graph 2.8 : Comparison of gross enrolment ratio in secondary education for girls and boys in 2002/03 (or close) 76
- Graph 2.9 : Coverage of technical/vocational education (number of students per 100,000 inhabitants), 2002/03 or close 77
- Graph 2.10 : GDP per capita and technical/vocational education coverage, 2002/03 or close 78
- Graph 2.11 : GDP per capita and technical/vocational education coverage for countries with GDP per capita below 1,000 US\$ per inhabitant, 2002/03 or close 78
- Graph 2.12 : Number of students per 100,000 inhabitants and GDP per capita in US\$, 2002/03 or close 80
- Graph 2.13 : Number of students per 100,000 inhabitants and GDP per capita in US\$ for countries with a GDP per capita below US\$ 1,000, 2002/03 or close 81
- Graph 2.14 : Average annual variation in number of pupils in primary education and in lower secondary education between 1990/91 and 1998/99 (in %) 97
- Graph 2.15 : Average annual variation in number of pupils in primary education and in lower secondary education between 1998/99 and 2002/03 (in %) 97
- Graph 2.16 : Average annual variation in number of pupils in primary education and in upper secondary education between 1990/91 and 1998/99 (in %) 98
- Graph 2.17 : Average annual variation in number of pupils in primary education and in upper secondary education between 1998/99 and 2002/03 (in %) 98
- Graph 2.18 : Average annual variation in number of pupils in primary education and in higher education between 1990/91 and 1998/99 (in %) 99
- Graph 2.19 : Average annual variation in number of pupils in primary education and higher education between 1998/99 and 2002/03 (in %) 99
- Graph 2.20 : Changes in primary survival rate between 1995/96 and 2002/03 101
- Graph 2.21 : Changes in primary-secondary transition rates between 1995/96 and 2002/03 101
- Graph 2.22 : Primary survival rates and transition from primary to lower secondary education in 2002/03 (or close) 102
- Graph 2.23 : Changes in survival rates for lower secondary education between 1995/96 and 2002/03 (or close) 103

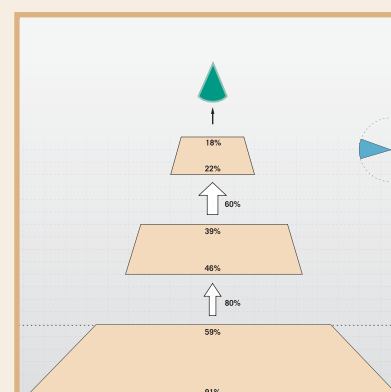


Graph 2.24 : Changes in the lower→upper secondary transition rates between 1995/96 and 2002/03 (or close)	103
Graph 2.25 : Lower secondary education survival rates and lower→ upper secondary transition rates in 2002/03 (or close)	104
Graph 2.26 : Access rates into the last grade of primary school by 2015 for certain African countries	106
Graph 3.1 : Quantitative efficiency of systems	114
Graph 3.2 : Equity efficiency of systems	114
Graph 3.3 : Sequencing of trade-offs in the mobilization and use of the global envelope of resources for education	115
Graph 3.4 : Distribution of the global education public expenditure envelope by main education level	117
Graph 3.5 : Progress towards the Universal Primary Enrolment and priority given to primary education	118
Graph 3.6 : Quantity/unit cost trade-off (by level of resources for primary education)	120
Graph 3.7 : Country-specific differential in teachers' average salaries (in units of GDP per capita)	124
Graph 3.8 : Country-specific differential in pupil-teacher ratio and % of expenditure excluding teachers' salary	125
Graph 3.9 : The large variety of repetition rate	130
Graph 3.10 : Adjustment of system by a deterioration of education conditions, secondary level	132
Graph 3.11 : Adjustment of system by a fall in unit cost, higher education	132
Graph 3.12 : Class size average and variance	136
Graph 3.13 : Comparison of environmental difficulties and resources allocated, school level, public schools, Benin 2002/03	137
Graph 3.14 : Comparison of environmental difficulties and resources allocated, region level, Niger 2003/04	137
Graph 3.15 : % of pupils enrolled in schools not providing schooling continuity throughout the cycle and survival rate, Moukhataa (department) level, Mauritania 2002/03	139
Graph 3.16 : % of pupils enrolled at the schools not providing schooling continuity throughout the cycle and survival rate, department level, Guinea 2003/04	139
Graph 3.17 : Simulations of the gains in GER linked to optimisation of student grouping	141
Graph 3.18 : Relationship between resources and results, country level	142
Graph 3.19 : Relationship between resources and results, school level, Chad, 2001/02	142
Graph 3.20 : Index of environmental difficulties and index of results in primary schools, district level, Niger 2003/04	143
Graph 4.1 : Overall and African official development aid	155
Graph 4.2 : The dynamic of the ODA for the education sector	156



› Diagrams

Diagram 1.1 : The virtuous circle between stock, distribution and quality of education for growth	38
Diagram 2.1 : Changes in the average African pyramid	86
Diagram 2.2 : Changes in the average pyramid for countries with high PCR in 1990/91 (>75%)	88
Diagram 2.3 : Changes in the average pyramid for countries with medium PCR in 1990/91 (between 50% and 75%)	90
Diagram 2.4 : Changes in the average pyramid for countries with low PCR in 1990/91 (<50%)	92
Diagram 2.5 : Pyramids «under construction»	94
Diagram 2.6 : «Eiffel Tower» pyramids	94
Diagram 2.7 : «Aztec» pyramids	95
Diagram 2.8 : «Toboggan» pyramids	96
Diagram 5.1 : Users' power in the service delivery framework	169



> Tables

Table 1.1 : Inequalities in the duration of education according to the income quintile (population 5-24 years)	40
Table 1.2 : Quantitative education-employment assessment in Guinea (annual flow 1996-2002)	43
Table 1.3 : Private and social return rates according to level of education and world region	48
Table 1.4 : Impact of parents' education on their children's schooling (% of children accessing the 1 st year of primary school)	53
Table 1.5 : The impact of the mother's education on population variables in three French-speaking African countries	54
Table 1.6 : Frequency of behaviour in terms of maternal health according to the mother's level of education in four French-speaking African countries	55
Table 1.7 : Frequency of behaviour in terms of child health according to the mother's level of education in three French-speaking African countries	55
Table 2.1 : Social disparities between the different indicators for primary education in 21 countries, around the year 2000	68
Table 2.2 : Literacy rates (15 years +) in the developing world, 2000-2004 estimates (%)	72
Table 2.3 : Literacy rates (15 years +) on the African continent, 2000-2004 estimates (%)	72
Table 2.4 : Number of students per 100,000 inhabitants, and percentage of growth	79
Table 2.5 : Number of students per 100,000 inhabitants, 1990/91 and 2002/03 (or close)	80
Table 2.6 : EFA and EFA+ African indices	83
Table 2.7 : Pyramids «under construction»: CAR, Burkina Faso, DRC, Niger, Mali, Djibouti	94
Table 2.8 : «Eiffel Tower» pyramids: Chad, Angola, Mozambique, Senegal, Madagascar, Guinea-Bissau, Mauritania, Ethiopia	94
Table 2.9 : «Aztec» pyramids: Burundi, Rwanda, Tanzania	95
Table 2.10 : «Toboggan» pyramids: Guinea, Côte d'Ivoire, Zambia, Comoros, Sudan, Congo, Eritrea, Gabon, Benin	95
Table 2.11 : Number of secondary pupils in 2015 according to several scenarii in 10 countries	100
Table 2.12 : Flow regulation - hypothetical examples	102
Table 2.13 : Classification of countries by current trends towards achievement of the Universal Primary Education goal by 2015	107
Table 3.1 : Macroeconomics constraints and budgetary priority for education	112
Table 3.2 : Distribution of expenditure and room for manoeuvre for increasing the primary education share, countries far from Universal Primary Enrolment and where primary education has a low budgetary priority	119
Table 3.3 : Room for manoeuvre aimed at achieving Universal Primary Enrolment and the funding gap with current policies	122
Table 3.4 : Room for manoeuvre to reduce the unit in countries with low completion rate and high unit cost	127
Table 3.5 : Degree of randomness in teachers' allocation	136
Table 3.6 : % of pupils enrolled in schools not offering schooling continuity throughout the cycle and survival rates (rural area only)	138
Table 3.7 : Distribution of the pupils according to student grouping method or school enrolment system (%)	140
Table 3.8 : Distribution of progress explanation (socio-economic factors and school inputs variables)	143
Table 3.9 : The impact of schooling factors on results at primary education; compared with costs (Guinea 2003)	144
Table 3.10 : Effects of the school organisation and measured school inputs on learning achievement as described in the literature, primary education, African countries	145
Table 3.11 : Global «teacher» effect and effect of the teachers' measured characteristics on learning achievement (% of variance explained, average of grade 2 and 5, primary education)	145
Table 3.12 : Example of global structure of responsibilities for education system management	148
Table 3.13 : Matrix of policy levers	149



> editorial

By Mrs Lalla Aicha Ben Barka
Director of UNESCO Regional Office for Education in Africa

Hopes raised by the international mobilization promoting the goals of Education For All are universal. But these hopes are tinged with concern as far as Africa is concerned due to the persistence of a significant gap with the rest of the world. This report intends however to associate lucidity with optimism.

Lucidity first of all : we know that in the current state of African education systems, almost half of each generation of school-age children still do not benefit from sufficient schooling in order to become a literate adult population. One of the main consequences is on the economy which is prevented from take-off by the overall weakness of human capital. But another consequence is the reproduction of dual societies where the question is less one of equality than of a poverty trap. For education has been identified as one of the major levers for helping to break the vicious circle of economic stagnation and social marginalization. International commitments are the most visible expression of this shared conviction.

Optimism next, as five years on from the forum of Dakar, although progress and setbacks hardly balance out on the road leading to 2015, for some countries a positive process has reversed the tendency.

It is on the basis of this reality, and not by virtue of some mysterious knowledge, that this report intends to provide governments with perspectives and "benchmarks for action".

Because the main driving force for action is the participants' conviction of working in the field of what is possible. The aim of the report is therefore to define the scope of what is possible and to measure progress over time. Proceeding in this way gives one a chance to understand why decisive progress is sometimes made in just a few years; but also to understand why it seems so difficult sometimes to transform the resources made available into more education for more children.

Empirical analysis can provide some arguments to sway this conviction in the field of education where everyone legitimately expresses beliefs and proposals. It is not up to analysis to establish preferences or decide on trade-offs, but analysis must fulfil the task of evaluating the conditions and consequences of these preferences and trade-offs. And in a context where public resources allocated to education are scarce, brutal questions are to be asked: Who has priority in access to these resources: the out-of-school children, in order to enable their first access? Or rather the children who are already enrolled, but whose schooling conditions do not enable learning or do not provide them with the possibility of pursuing their education beyond primary school.

In the course of analysis, recovering the decision-making sphere is always at stake. As, what rapidly comes out from examining the basic principles, growth modes and performance of African education systems is the extraordinary diversity, and such a distended relationship between the resources put in and the results obtained that it cannot be put down to the specific national context alone.

This therefore means that all educational policies are not equal, that there is at least a potential of productivity to be exploited within current strategies, but also, sometimes, some more in-depth reforms which could lead to decisive progress, as witnessed by certain exemplary experiences on the African continent.

But, one could object, if the solutions are there, how is it that they have not already been adopted ? What are the obstacles which come between unanimous political will and winning strategies ?

Firstly, the information must be available: if over the following pages we manage to convince the reader that our knowledge of the internal and external dynamics of African education systems has progressed, that henceforth some analytical grids and points of comparison have been identified enabling to choose between different mechanisms and enabling trade-offs

between different priorities, then we shall have achieved our aim.

We then come to the most important elements, i.e. the people involved, without whom the system is only an outline. The moment comes when those responsible are in the front line. The moment comes when the final test for politicians is not only to choose the right options, nor to have them accepted, but to reach a point where each person feels jointly responsible for the implementation of a true pact for education.

This subject comes up more and more in the international debate. At the outcome of the 2005 Education For All Global Monitoring Report Summary¹, it is stated that «the internal political process is the ultimate guarantee of the success of the reform».

In the African context of state construction, the citizens' connection with public decisions is uncertain at national level and, for the share of the population accumulating the obstacles of poverty and illiteracy, this connection is practically nonexistent. But locally, the connection can materialize, as shown already by the different ways that communities now participate in school management. This is where social demands can really be expressed and the provision of basic social services controlled.



But the legitimate insistence on the local dimension may sometimes have led to neglecting the State's constituent role in guaranteeing the provision of these basic social services. An exclusively local vision of educational development creates new problems while solving others : local tax systems are still virtually nonexistent, educational communities cannot handle everything and territorial and social inequalities may as a result be accentuated unless there is an overall redistribution and regulation.

A public education policy, put forward by the government authority, included in a strategic framework of poverty reduction, constitutes more than the link between international mobilization and local processes : it is the pivot on which, in spite of all the obstacles, the success of decisive public action is at stake. And for financing this public action, the budget tool, sidetracked for a time by the rationale of projects, takes on its essential role again, showing clearly that most of all, financing of education is based on domestic resources, which must be managed effectively.

Involving the citizen in the dialogue on the provision of a public education service on the one hand, and a responsible statement on sovereignty for resources made available for this service on the other hand : the internal political and government process is the practical representation of the pact for education. This also guarantees a healthier relationship with development partners who are sometimes placed, with or without their consent, in the position of guarantors of the general interest at national level, which is not their role.

This healthier basis enables a better comprehension of the duty of international solidarity. Today, the convergence of analysis concludes that most of the external financing needs in reaching the goal of universal primary enrolment are concentrated in Africa, and that this priority represents three or four times the flow of aid directed at this level.

This progress report provides us with insight in order to pursue efforts that are beginning to pay off, in order to rework policies when inappropriate, in order to mobilize and direct energy at national and international levels. It shows us how, in ten years time, it will be possible to meet the goals set for a generation of children born at the turn of the century in Africa.

Lalla Aicha Ben Barka

¹ UNESCO, 2004 «2005 EFA Global Monitoring Report: the Quality Imperative»

Executive summary

Five years have passed by since the World Education Forum in Dakar in April 2000 during which the international community committed itself to six major goals of Education For All by the year 2015. Drawing lessons from the limited progress made since the former conference in JomTien ten years earlier, **the Dakar Forum put forward a new deal for solidarity and responsibility at global level:** those countries having made «serious commitments» and presenting a «credible plan» for achieving the goals of Education For All would benefit from the financial partners' support for the share of funding lacking at national level.



This strong commitment was reinforced when two of the goals (**gender parity in access to education** - by 2005 for primary and secondary cycle and by 2015 for all levels of education, and **universal primary enrolment by 2015**) were included in the millennium goals adopted at the United Nations Conference in New York in September 2000.

Did Dakar really change the deal compared to JomTien? The five-year anniversary of the Dakar Forum and of the Millennium Declaration is undoubtedly the first milestone providing sufficient hindsight to take stock of the situation.



Has education maintained its position on the international agenda? Have the arguments and conviction around the goals of Education For All been changed or reinforced? Does the latest available data enable to measure progress made on the African continent? What is the situation as far as reaching the Millennium Development Goal of Universal Primary Enrolment? What policy choices have been made? Where has progress been made and where do the weaknesses lie? Is there some room for manoeuvre? Which directions should be taken for improving efficiency and developing solidarity?

The aim of the present regional report produced by the UNESCO-BREDA education sector analysis team (Pôle de Dakar) is to address the above series of questions in the form of «**benchmarks for paving the way for action**». Empirical analysis is based upon a wide range of sources: national administrative and educational data collected by the UNESCO Institute for Statistics, household surveys conducted by the different countries with the support of UNICEF, various surveys on school achievements (quality of education), United Nations demographic data, recent research work on educational economics, etc.



Thus, although the report is designed first and foremost for education executives and decision-makers in African countries, endeavouring to **equip them with information, methodological tools and analysis to assist in decision-making in education**, it is also appropriate for:

- educational advisors in bi-and multilateral development agencies, at head office level and in the field, as it provides comparative study which is sometimes lacking at national level,
- NGOs and other private sector organisations developing their own analysis, and finally
- any reader interested in the issue of education in Africa, investigating for better choices on goals, systems and resources.

The document is punctuated by three types of «benchmarks»:

Benchmarks as to the expected benefits of education: the eminent position of goals for education in the policy commitments of African countries as with the international community cannot be taken for granted once and for all. In order to maintain such a high degree of mobilization, it is useful to reiterate why this choice is justified, and more precisely why the goals of Education For All are crucial in the poorest countries. Today, there are more numerous and more precise arguments which make education the basis for economic and social development in Africa.

Benchmarks on the dynamics of enrolment: once the foundation stone has been re-laid, one should observe to what extent, in the full sense of the term, the importance given to education results in harmonious and sustained development of the education system. An inventory

² These figures are supplied by the UNESCO Institute for Statistics for 2002/03 in general, or in some cases are calculated from national school data from 2003/04 -in which case they are combined with the United Nations population projections for calculation of the main education indicators-, essentially for West Africa, where the Pôle de Dakar is active on a regular basis.

³ Berthélémy and Arestoff, (2002), Psacharopoulos and Patrinos, (2002), etc.

of enrolments in Africa with apparent trends has been drawn up for this purpose, using the most recent available figures², in particular with regard to achieving Universal Primary Enrolment by the year 2015.

Finally, **benchmarks pertaining to room for manoeuvre as far as policies are concerned**: as current levels and trends will not suffice to achieve Universal Primary Enrolment, the key factors of success for the massive and, at the same time, harmonious development of education systems must be identified, that is to say the **options and priorities for African public policies** in terms of education.

The present executive summary roughly outlines the content of these «benchmarks».

1. 1. Education, the basis for economic and social development in Africa

The right to Education For All is a universally established right. However, along with other rights, it is difficult to put into practice in a situation of constrained resources, particularly in African countries, where there is strong competition for access to public resources, and often difficult budget trade-off between the different sectors. Consequently, in order to bear some weight in the policy decision on allocation of public resources, it is important to provide an objective justification of the primacy claimed for education, along with the level of priorities within the educational sub-sectors.

For that purpose, some new theoretical elements, as well as recent empirical analysis, suggest that the transmission channels of investment in education on growth should be revisited and the impact of education on human development documented. These arguments reinforce the justification for public financing of education but at the same time lead to the necessity of improved targeting of the investment.

This can be demonstrated in two stages.

From an economic point of view, as shown in recent research³, education comes out as a condition for economic take-off, subject to reaching a «critical threshold» of educated population. This requirement therefore calls for ambitious educational policies, in order to enable the scale change necessary in the development of education systems, which has so far been too progressive.

Beyond that, the way in which education is shared out within the population plays an important part; thus, it is not enough that, on average, the level of education of the population significantly increases, but equity in the distribution of education between individuals is necessary to multiply the expected beneficial effects. However, at the present time, the results are not surprising: there continue to be strong disparities in access to the education system, which increase along with the different levels of education. At the same time, there is a strong concentration of public resources for education benefiting a minority, mainly coming from the wealthiest groups of the population.

The critical threshold and equity arguments leave no doubt as to the justification for public investment in **primary education**. Moreover, the relationship is not linear between the degree of coverage on the one hand and economic and social benefits on the other hand: **some of these benefits are linked to actual universalization of primary school completion for each new generation of children**.

Justifications for the **extension of lower secondary education** are basically the same as for primary education. Recognition by many countries of basic education combining these two levels is good intuition. But the existence of positive effects (on stock and equity) of the universalization of lower secondary education is accompanied by a preference for achieving the objectives on both levels in phases. In other words, refusing access to primary school to part of the school-age population with the excuse that educational continuity is not guaranteed for that generation up to the end of the lower secondary level is counter-productive: it makes economic sense, in addition to being justified in terms of rights, to admit that a large proportion of primary school leavers will not have access to lower secondary education in the transition period.

At higher or terminal levels of education, educational investment in relation to growth is justified with more direct reference to the number and distribution of jobs. In other terms, jobs are the bases to justify education offer at the higher of levels, but education offer by itself does not create jobs. As a consequence, **the system must provide education corresponding to the needs of the economic sphere**. Structural conformity (in numbers and levels) between education system leavers and job structure is important. Even if the education system has to anticipate needs which may not exist when students embark on one course of study or another, it is generally observed that there are many more leaving higher education (and especially university) than jobs available. This trend, when it is the result of heavy public financing at this level, is difficult to justify compared to investments in other levels of education.

Finally, the **quality** of education must be taken into account when considering beneficial effects on growth. Indeed, an individual's economic role is not directly related to the number of years of study or the type of degree but rather to knowledge or know-how actually gained at school and put to use at work. Now in Africa, standardized international tests on pupil learning indicate a general weakness, and a wide variety, both between countries and pupils of the same country. A specific policy for improving quality and reducing quality disparities can have positive effects on the volume and composition of educational capital, and eventually on growth.

From the point of view of human development, the role of education is also reaffirmed on several levels. Complete primary education is a prerequisite for sustainable literacy of future adults with six years of schooling proving to be the strict minimum to avoid forgetting one's knowledge in terms of reading and writing. Such basic education not only prevents the risks of poverty now, but from one generation to the next. It also has a positive impact on changing behaviour, particularly in women, in terms of reproductive, maternal and child health, and the fight against HIV-AIDS.

It is pertinent to detail the arguments relating to human development and to economic development, according to the different levels of education. Once again, there are specific outcomes at each level, especially for **primary education**, if completed, with **impacts on numerous basic social objectives**. This, in the broader perspective of the Millennium Development Goals, gives special status to the two goals of education: they not only represent rights and well-being, but enable achievement of the other millennium goals.

A large amount of data is now available from surveys. What is most striking is the mutual reinforcement of **immediate benefits** from educational investment on human development (short term impact of primary schooling on health and social condition and on the reduction of vulnerability to life hazards) and **long-term benefits**, covering a lifetime (gain in economic independence) or between generations (observation of a «ratchet effect» of literacy and of its positive effects from one generation to another).

All these positive side effects from basic education legitimize massive government investment for the development of primary education, and as far as the financial and physical extension makes it possible, **lower secondary education**. On the other hand, in a constrained budget framework, **a public policy for the development of higher and terminal levels** (higher and vocational education) **must first examine the issue of the adaptation of needs to the economy** ; otherwise, public investment may prove to be inefficient and/or contrary to the reduction of inequalities.

2. Current situation and dynamics of education systems

2.1. Enrolment dynamics vary according to education levels

Progress at primary school level is far from decisive

In 1990, still almost a quarter of African children did not even have access to the first year of primary school. The latest available figures comparatively (2002/03) show that **less than 10% are now excluded from the system**. The African countries have thus proven that the educational offer could catch up with high-pressure demography.

However, the Millennium Goal, in line with the empirical data on the benefits of education, is that of complete primary education for all; from this point of view, the results show many more nuances. In 1990, less than half a generation of children (49 %) benefited from schooling through to the last year of primary education. In 2002/03, the proportion had only progressed by 10 points (59 %). **4 out of 10 children still did not complete primary school in 2002/03**. This shows once again that, even if the goal of universal primary enrolment demands an improvement in access to the first grade in some countries, **principal efforts should be directed to reducing the number of dropouts per level**.

It should be noted that these averages conceal great disparities. Disparities between boys and girls are being evened out only too progressively : **for 100 boys who complete primary education, only 87 girls are in the same situation** out of the 42 countries studied: although data is not yet available for 2005, it is very likely that the parity goal will not be reached on time.

However, it appears from analysis that **geographical disparities** (rural areas/urban areas) **or economic disparities** (low income households/wealthy households) **are more significant than the differences between girls and boys**, and take longer to even out.

From the **quality** point of view, the problem is the shortage of comparative data over time. However, the report provides, on the basis of school achievement evaluation programmes for existing pupils and of household surveys, some information which indicates **very significant disparities in country performance, between the different countries and within each country**.

Other sub sectors and levels of education: a very high progression in enrolments

Currently, **46% of one age group are registered in the first year of lower secondary school** (compared to 28% in 1990), 39% (compared to 21% in 1990) **in the last year**. **Lower secondary education**, whether measured on entering or on leaving, **has gained 18 points in percentage over the period, i.e. practically double that registered for primary completion**.

Survival in the system is quite good overall in both the first four years and the last three years of secondary education. The pseudo dropout rate⁴ in lower secondary education is set at 15%. At higher secondary level, with the current enrolment conditions, 22% of one age group reach the first year of higher secondary education and 18% the last year, i.e. a pseudo dropout rate of 4%.

The proportion of students in technical or vocational education at secondary school level has not really varied since 1990 (14% in 2002 compared to 13% in 1990). This means that the progression in technical/vocational enrolments has followed that of general education.

However, the prize for progression in enrolments, proportionally, goes to higher education. The number of students per 100 000 inhabitants increased from 232 to 449 between 1990/91 and 2002/03.

4 The pseudo dropout rate is the difference between the access rate to first year and access rate to last year of lower secondary education.

Unsatisfactory trade-offs at primary level and deterioration in the global efficiency of the systems between 1990/91 and 2002/03:

Secondary (lower and higher levels) **and higher education enrolments have progressed proportionally more than primary enrolments** over the period 1990 - 2002/03. This result challenges the widespread opinion whereby putting the accent on primary school education has been detrimental to post-primary education.

This is one of the surprises that came out of the analysis, which questions the reality of policy priority given to primary education, and puts into perspective the requests that more interest be given «at last» to post-primary education. But it is less surprising when one considers the strong pressure for educational continuity from the majority already benefiting from schooling, compared to the low pressure from those not in the school system, and who belong to the poorest segments of the population. To this must be added, in terms of political economics, the weakness of mechanisms regulating pupil flow between the different levels of the education system, which only became evident with the general expansion in access.

Consequently, it is of interest to examine the determining factors and the consequences of such an evolution:

Everything leads us to believe that **in 1990/91 the education systems regulated entrance to the different educational levels.** This led to admitting fewer children, in proportion to the population, into the first year of primary education, and to a selection between the different levels (thus, only 58% of primary school leavers had access to the first year of secondary education in 1990 compared to almost 80% in 2002/03). However, this disadvantage came along with the advantage of giving those pupils who entered a given level of education a reasonable chance of completion. This apparently more Malthusian regulation is in fact more efficient if one considers that what is important is not to start a level but to complete it. This choice may have been made due to constraints as to secondary school capacity and/or for reasons of educational quality.

On the other hand, **the situation in 2002/03 shows that during the intervening period the «gates» were opened for first access to primary and secondary school.** Thus, the transition rate from primary to lower secondary education gained over 20 points. This has of course had positive effects on equal access to basic education, but the final picture is much more ambiguous, due to a whole series of reasons. First is the persistence over the period of a very bad survival rate in primary education, and as a consequence of an increased waste on resources, commensurate to the considerable extension in numbers. Second is a frequent situation of overcrowding in the secondary cycles and in upper education, with «uncontrolled» adjustment through lower unit costs, and deterioration in teaching conditions in higher education. Third is an increase in the number of school leavers at the terminal levels of education out of proportion with the evolution of job opportunities at the corresponding levels.

Some national results are more positive: thus, many countries that have reached universal primary education have resolutely set out on, and rightly so, an accelerated expansion of lower secondary education. However, the continental trend is cause for concern, **while achieving the goal of Universal Primary Enrolment by the year 2015 demands in most cases acceleration and better targeting** (improved survival) **of the priority granted to primary education, efforts have been scattered over the educational pyramid resulting in lower overall efficiency.**

2.2. What is the probability of achieving Universal Primary Education in African countries by 2015?

For countries not yet having achieved UPE, the report sets out to forecast enrolment dynamics on the basis of the current structural conditions of the systems (in terms of access, survival



and completion of primary education). This enables **the classification of 34 African countries not having yet achieved UPE⁵ as to their chances of achieving the MDG: along this method, 31 of those countries will not achieve UPE, 25 of these 31 staying below the 75 % completion rate mark.** These results are worrying insofar as they leave these same countries under the decisive threshold from which economic and social benefits can be fully appreciated, which also translates into lower effectiveness of public expenditure on education.

2.3. New analytical tools

Although the report naturally presents a comparative picture of education systems, it also aims to provide a reading of the situation per country, with a two page visual «country sheet»

For a general understanding of each national situation, an index, known as the **African Education For All + (EFA+) index**, has been developed, from the four most easily quantifiable and comparable dimensions of the Dakar goals (literacy, complete primary education, parity, quality⁶), which can thus be illustrated by a quadrilateral (the more the quadrilateral is filled in, the nearer the country is to reaching the goals of EFA).

Country sheets also present the evolution between 1990/91 and the most recent available year of the «**educational pyramid**», a graphic representation of the status of enrolments at each level and of transitions between levels, designed to visualize a **synthesis of sector development over the period.**

3. Achieving results : options and priorities for public policies

As the inventory and trends show a definite risk of not reaching the Millennium Development Goal, at least by the deadline for quite a number of countries, **conditions for accelerated progress must be examined.** Given that the lever of any education system is the national policy, and that the latter has to operate in a constrained budget framework, this calls for a comparative analysis of choices made in each case, in order to identify, in line with the objective, the room to manoeuvre and the different options available.

In a way, it can be noted that the «uncontrolled» share is too large compared to the «controlled» share in the development process of education systems. Indeed, **it seems that the systems have adjusted themselves rather than being subjected to strong government action. This resulted in negative consequences in terms of social costs and overall effectiveness of the systems.** It is necessary to point out the need for, and the possibility of, designing new levers for public policies better oriented towards collective interest and sustainable development.

Developing education systems requires three types of effort: **sufficient mobilization of public resources** for the education sector, sound choice of the **main parameters of educational policy**, and efficient **educational management and administration.**

3.1. Mobilizing sufficient public resources for the education sector

Mobilization of public resources for education is firstly linked to the State's capacity for mobilizing its own resources (**fiscal pressure**), which in the short term is relatively exogenous for educational policy, as it is closely connected to the

⁵ These 34 countries are from the 53 taken into consideration in the report, minus (i) 10 countries having achieved UPE in 2002/03 (primary completion rate 90 % or above), and (ii) 9 countries for which data was not available or inadequate for performing the analysis

⁶ The quality of education itself if measured by the IAQE or IAQE+ composite indicator, calculated for 36 countries from the MLA learning studies (Monitoring Learning Achievement, implemented by UNESCO/UNICEF), PASEC (Programme d'Analyse des Systèmes Educatifs de la CONFEMEN), SACMEQ (Southern African Consortium for Monitoring Educational Quality, which works in partnership with IIEP) and UNICEF MICS (Multiple Indicators Cluster Survey) household surveys.

level of the country's economic development. However it also depends largely on the priority granted to education in **budget trade-offs** between different sectors. Now the options selected in this respect were still very different in 2003, varying between less than 5% and more than 30%!

3.2. Making decisive choices on the major parameters of educational policy

Room for manoeuvre within the major policy trade-offs

Significant variability can be noted in policy choices in terms of intra-sector allocation and use of resources, giving an indication of the room for manoeuvre existing in some countries:

- (i) **Intra-sector trade-off.** Distribution of the budget for education amongst the different levels significantly varies from one country to another: ranging from 23% to 62% for the share allocated to primary education (adjusted to six years), from 11% to 52% for the share allocated to secondary education (seven years) and from 8% to 49% for the share allocated to higher education.
- (ii) **Quantity-unit cost per student trade-off.** A low unit cost per pupil gives priority to the quantity of enrolments whereas a high unit cost gives priority to the (supposed) quality of education ; this fluctuates between less than 7% and over 29% of the GDP for primary education, between 14% and 63% for secondary education and between 50% and almost 800% for higher education.
- (iii) **Trade-off within unit cost.** The distribution of the unit cost per pupil amongst the different types of expenditure may express priority: 1/ to the average teacher salary (varying from under 2 to 8 times the GDP per capita for the 33 countries studied), 2/ to the reduction in class sizes (from 15 to 70 pupils per teacher) or 3/ to other measures covering an objective of quality (expenditure other than teacher salaries spread across 4% and 45% of total current expenditure).

The heterogeneous nature of these policy options, and the success of some of them, prompts each country to act where possible in order to build those educational policies which will enable achievement of the main objectives.

Room for manoeuvre in the management of student flow

Management of student flow in the education system overall, which determines in fine budget allocations between different education levels and the expenditure per pupil (quality), requires regulation as follows:

- (i) **Regulation within education levels:** survival must be improved, firstly **by fighting against the rate of repetitions which is too high**; individual and global studies show that these are ineffective, responsible for **triggering off dropouts** and waste an important share of national resources; some steps such as the introduction of sub-levels within which it is impossible to repeat, have been successfully tried out.
- (ii) **Regulation between education levels:** regulation must be organized policy-wise, technically, and budget-wise, to better adapt the structure of the education system to 1/ post-primary capacity, to avoid penalizing quality and 2/ the needs of society and the economy. This measure must certainly be backed up by other measures centred on school leavers.

Once the thought process is underway and choices made, it is the management of the system by the decentralized structures which is at stake, to ensure optimal utilization of resources, in accordance with the double requirement of equity and quality of education.

3.3. Improving educational management and administration

Allocation of resources to the schools

Equity requires the **allocation of means** (teachers in the first place) to the schools which address the needs (mainly defined by the number of enrolments). This supposes that one has recourse to an efficient information system, coupled with strategic tools such as school mapping. In the meantime, in case of continuing scarcity of means, different experiments in terms of **class organization patterns** (multigrade, alternated recruitment, etc.) provide, according to the geographical location of the school (urban/rural area), palliative solutions already successfully applied in many countries. It also seems a good idea to reinforce policies of compensation for local context difficulties by allocating additional resources.

Transforming resources into results at school level

Once resources have been allocated from central level to the schools, the question of distribution and utilization of these resources is decisive in obtaining tangible results. **These results must be explicitly set out in order to become the priority for action and vigilance by local stakeholders** (inspectors, directors, teachers, school community).

The common objectives of these stakeholders are to arrive at the best possible results in terms of:

- **Learning** ;
- **Pupil survival** throughout the educational level with minimum repetition;
- **Attraction** (the capacity of the school to attract the child population in its catchment area).

These results call for some autonomy in decision-making by the schools. For example, the objectives of **survival and «attraction»** will be served by an **adaptation of the local offer** according to the specific characteristics of the demand (the most common example being the adaptation to the agricultural calendar in rural areas), or by measures to **stimulate demand**, whose impact is increasingly well known (like school feeding programs).

On the results in terms of learning, there are many **different types of school organization**, educational **input combinations** and **teaching practice which make significant difference in the process of student learning**. It is important to dispose of objective **means of evaluation** of the organizational factors, the material factors and teacher practice which together will enable the children to learn.

Indeed, the socioeconomic and local contexts, as well as the individual characteristics of the pupil, have an influence on results. But there exists an African specificity, brought to light by empirical studies, which shows that the share of enrolment conditions is particularly high compared to external factors; this opens **the way for an effective active policy for overcoming social and economic inequalities**. It was seen above that it was appropriate to try and compensate for inequalities by granting additional resources in difficult areas. But, in this case, it is also possible to adjust those factors of school organization which have the greatest proven impact on learning, e.g. actual teaching time (poorly monitored to date), teacher motivation or teaching techniques used in the classroom.

In general, a **weakness** can be noted in **result-oriented management at local level**. Although in most countries, a mechanism of this type still remains to be defined, inspiration could be taken from some interesting innovations, based on the **definition of roles and giving a sense of responsibility to all stakeholders**, teachers and inspectors, but also parents or local communities (those stakeholders most concerned by the child's learning), together with a greatly reinforced system for evaluating the different schools' results (survival, exam results). It is only by such a change in practice and moreover in culture that the quantitative leap aimed at will be made possible, without deteriorating equal chances at school and without damaging the quality of education delivered.

Conclusion : general implementation of an educational pact

Identifying more effective policies is not enough

The first idea, of a more institutional and political nature, is to go further than the «amazement» of the specialist. Indeed, «technologies» for achieving the goals of Education For All by 2015 do exist: **The levels of internal and external financing and the main parameters of educational policy in line with achieving these aims are not only known, but are a reality for a certain number of African countries** who have moved on from an «off-track» status to an «on-track» status since the initial assessment in 2000.

How then can the conditions for encouraging the adoption, financing and implementation for reworked educational policies be found for the majority of African countries?

Translating an education pact into policy

The issue of political conveyance of the goals of Education For All must be addressed. Responsibility for this is situated at the highest national political level. It is now time to move on from a commitment or a sector priority to a true social pact for education at national level. The objective of this pact would be the **positioning of the goals of Education For All as constituent to education as public property and to general interest.**

The idea is on the one hand to sanctuarize the goals as long as they are not reached, and on the other hand to apply to them those principles associated with the production of public property, with universal and free access as top priority. The advantage of such a pact agreed upstream is **to set one of the parameters for sector negotiation** and to allow the system adjust itself to an objective which is accepted by all and that must subsequently be served by the allocation and utilization of resources.

Thus, **several major principles for the definition of education sector strategies** result from the educational pact. Firstly, the **goal of Universal Primary Education must be protected. Then, the first level of secondary education must be extended as far as possible** depending on the capacity of physical and financial extension, **and at the same time the other education levels developed according to social needs and economic demands.**

Solidarity and responsibilities from national to international level

But the interest of the **educational pact** is not restricted to the principles for the **definition** of strategies, it can also facilitate the **implementation** of these policies nationally and internationally.

At national level, the social educational pact legitimizes the citizen and the user in exercising **control over the basic education service.** The citizen, through his control on government policy, can ensure a control on the system upstream, and the user, at local level, can ensure a more day to day control, the latter level being more adapted to the involvement of the under-privileged segments of the population in access to this control, and who are the most directly concerned.

At international level, the educational pact becomes global on the basis of a clear **contract** in the spirit of the Dakar declaration on financing credible policies, in order to increase and make more effective the indispensable share coming from external aid to reach the goals of Education For All.





Guide to reading this report

An understanding of how this report is organised will be beneficial to the reader.

The body of the report consists of two main parts: one analytical and one statistical

- The analytical part includes an overview of the issues, followed by three sections:
 - › Section 1 deals with the impact of education on economic and social development in the context of contemporary Africa and, in conclusion, covers the question of its public financing
 - › Section 2 takes stock of the current situation and developments in education on the continent, five years on from the Dakar Forum
 - › Section 3 focuses on the options and priorities facing African decision-makers with a view to accelerating the progress towards the 2015 goals

This analytical part ends with a section on the developments concerning external aid, followed by a conclusion that re-examines the thinking in the light of more institutionally and politically-based actions.

- The statistical part consists of two entries:
 - › One entry for each country, consisting of 53 double pages, one for each country on the African continent
 - › One entry for each indicator, in the form of summary tables

This statistical part is rounded off by definitions and methodological sections.

This report may be read in different ways and on different levels, but the aim of the authors was to ensure that the analyses and recommendations are organised and cross-referenced in a structured way.

Introductory Chapter

(As an introduction to the three analytical sections)



First of all, it was important to revisit the arguments in favour of investment in education in general, with particular emphasis on the education for all goals, in the light of the particular context of Africa.

This is the focus of **Section 1, which is entitled « Education, the springboard for economic and social development ».**

This question has been widely covered by the literature. The traditional macro-economic approach is quite convergent, showing a series of «peaks» on returns for the development of investment at each level of education according to the stage of economic and social development. It is no surprise that on average in Africa, the primary cycle shows the maximum level of private and social returns.

However, this result must be viewed in the light of the dual structure of African economies. Here, access to the best paid jobs in the modern sector logically remains reserved for those who have been able to reach the highest levels of the education systems. But the persistently high levels of unemployment amongst graduates poses the question of how to make adequate changes in the numbers and quality of students reaching the end of secondary and higher education, as well as raising doubts about the relevance of the large-scale public financing of these levels of education.

One of the most remarkable results revealed by the analysis is that the main regulator of the job market in the traditional and informal sectors is price, whereas in the modern sector this regulation is based on quantity (the job market has a limited capacity to absorb graduates, and those who are «surplus» to requirements either end up unemployed, reduced to working in the informal sector or forced to find work abroad). The result is that increasing numbers of graduates from higher levels of education are taking jobs that were previously occupied by less qualified workers. This devaluation brings about a «race for qualifications» which is particularly costly in terms of human capital for the public authorities. For graduates of the higher education system, the average individual returns on educational investment, which are quite low, are given by the average of a wide range of values, which includes the relatively protected salaries of managerial staff in the modern sector at one end of the scale and the low or non-existent incomes of the «devalued» workers and the unemployed, at the other.

On the road towards Universal Primary Education (UPE), there is therefore a need to find a balance between the lower levels of education systems, which must respond to the need for major increases in pupil numbers, which leads inevitably to added pressures on the subsequent levels of education, and the higher levels, at which the individual and collective benefits are adversely affected when the economy's capacity to absorb the products of the education system is exceeded.

Indeed, in a context of limited resources, concentrating simply on the right to education has little to offer in terms of helping to inform the debate as a whole or in assisting those who make public decisions about the allocation of public resources to the education sector: decisions that concern the distribution of these resources as well as their amount. In reality, this expenditure has to compete directly with other forms of state expenditure, to which rights are also attached, such as the right to security or the right to health. Furthermore, because all forms of educational expenditure are not equal, the appropriateness of investing at certain levels of the system depends on the level of economic and social development. And finally, even if

there is a proven need, the unsuitability or inefficiency of a chosen policy can also raise doubts over its public financing.

The inspiration for this first section borrows liberally from the «Copernician revolution» which sees human development no longer at odds with economic growth, but as an investment firmly based on right and reason in the framework of a long-term vision of the fight against poverty and inequality.

The Millenium Goals, defined in 2000 by the United Nation, have sanctioned this approach.

An analytical reading of these Millenium goals gives the one of Universal Primary Education by 2015 a special status, because numerous studies confirm that UPE, as well as being a legitimate aim in itself, also plays a direct role in helping to achieve the other goals⁷.

To start with, UPE narrows down to a specific organization and process : improving access and success in primary schools. From here, it is important to check how pertinent this organization and process are with respect to a more final goal (literacy), and in relation to other organization and processes (informal, adult literacy, etc.), which could be seen as interchangeable (and not complementary, as is the case today).

Empirical data provide reassuring evidence about the justification for choosing UPE: there is indeed confirmation of a solid link between the flow of primary school leavers and improvements to the stock of human capital, as measured by the literacy rate among the adult population. This generational effect is strengthened by an intergenerational effect, because other measures bear witness to the influence exerted by the level of the parents' education, especially the mother's, on the schooling of their children.

The following stage consists of verifying whether, in addition to the role played by UPE in building a minimal base of human capital (literacy), with the aim of improving incomes at the individual level and stimulating economic growth, it also contributes to improving other aspects that have a strong collective value for the population, such as health and fertility. It is especially important to identify the changes in individual behaviours that are linked to the achievement of UPE and those which can only be achieved by providing access to the higher levels of education.

It has repeatedly been shown that the completion of the primary cycle represents a genuine threshold for the achievement of the fundamental goals of society, from both individual and collective points of view. As a consequence, it can be said that UPE represents a valid intermediate goal and that although we are as yet unable to grant universal access to secondary cycle, the social investments that are prioritised for UPE are far from being wasted.

During this critical time, when we are compelled to invest in primary schooling while structural modifications to the economy are under way but far from being completed, the relatively low levels of social and individual returns on investments in the higher levels of education poses a problem. The lack of social benefits does not justify the use of public funds for these higher levels, while the lack of individual profitability restricts the development of private solutions.

The greatest difficulties may well be caused by a time-lag problem: we were already aware that investment in education is a long-term issue and as such, is out of step with the politico-economic cycle and especially with the political horizons of governments. On the road towards UPE, the latter are confronted with immediate internal pressures to maintain educational continuity, whilst the economic justifications for the development for the higher levels of education systems only become apparent much later on.

However the short-term challenges are already enormous, involving the fight against poverty and inequality. Indeed, situations where access to schooling is denied are also the most inegalitarian. The initial steps of making basic education available to the masses, may even be adding to these inequalities. Only after Universal Primary Education has been successfully

⁷ It is true that the inverse is sometimes true. Today, it is acknowledged that the aim of UPE cannot be achieved if significant efforts are not made to reduce the impact of HIV/AIDS on the education system.

achieved will the benefits of the increased value of human capital be spread to a wider proportion of the population.

The intervening period before Universal Primary Education becomes a reality is therefore a dangerous time in many respects. The level of access to education is not high enough to reach a critical mass and bring about the anticipated social and economic benefits, and it only serves to aggravate the social divisions between the educational haves and have-nots.

This issue can then be directly compared with the trend for the quantitative development of African education systems covered in **Section 2 («Current situation and dynamics of education systems»)**.

This second section starts out with an assessment of the current quantitative performances achieved at the principal levels and branches of African education systems.

This first statistical and structural assessment also provides us with information about the progress that has been made towards the six Dakar goals. It concentrates in particular on comparisons in space and time and may be used as an introduction to the reading of the country sheets and statistical tables in the appendix.

Quality is a difficult dimension to evaluate, and is the subject of a special, still largely experimental approach, proposing the use of an index that makes the best use of information from the available surveys.

Following the assessment of the current situation, the second part of the section consists of the more dynamic exercise of analysing trends and prospects, focusing specifically on the Universal Primary Education goal by 2015.

The question that is posed in Section 2 in relation to UPE is «Given the conditions that currently prevail in education systems, how far away from achieving UPE will we still be in 2015?»

This is the reverse of the question that is asked in Section 3 «What educational policies do we need to implement today if we consider UPE by 2015 to be a fixed goal?»

But in both cases, this look into the future demands a prior examination of the past.

The Jomtien Conference in 1990 sounded the alert that the process of schooling in developing countries was running out of steam. In fact, in Africa during the 1980s and until the middle of the 1990s, the differentials between the respective rates of increase of the school age populations and the numbers of children actually educated were very low, on average, and negative in certain countries.

Since the second half of the 1990s, the differentials have stabilised on the positive side. The fact that, to mention just one example, the continental average for the gross enrolment ratio in the primary cycle rose from 78% to 92% between 1990/91 and 2002/03, is evidence of a genuine mobilization of resources and should be considered as one of the real grounds for hope.

However, the high level of these percentages gives a false picture of the challenge that lies ahead. In fact, the gross enrolment ratio should only be seen as an indicator of a system's capacity to accommodate pupils and as such, it does not provide a measure of the actual completion of a full cycle of primary education, which is a more reliable measure of the primary completion rate.

In reality, the median primary completion rate at the continental level has only recently passed the 50% mark, which means that today, if we take account of the average relationship between primary schooling and literacy mentioned in Section 1, nearly half of all school-age African children are destined to be illiterate adults.

The picture that is starting to emerge from the observation of certain African countries is that genuine progress has been made in terms of improving access to the first year of the primary cycle (facilitated by the increased number of places and also by specific measures such as the elimination of enrolment fees). This positive development is having little impact on improving the completion rate, which is the true measure of achievement of the primary schooling goal, because of persistently high dropout rates during the cycle.

By standing back and observing developments across the whole of the educational pyramid over a little more than a decade, it can be seen that, in general, access to the secondary and final levels of education has become less selective. But what might be seen as a sign of success for the campaign for universal access to the primary cycle is quite often the symptom of much more ambiguous developments.

Firstly, there is the fact that the number of pupils in the primary sector has increased at a proportionally slower rate than the numbers in the subsequent levels of education, which belies the priority given to universal primary education, in spite of the commitments that have been echoed repeatedly.

However, it should also be considered that, far from benefiting from this disproportionate increase in numbers, the higher levels of education systems are often in crisis and, even if this is not the only factor to blame, the lack of regulation of numbers is causing a worsening of educational conditions, often accompanied by a drop in quality. For higher education, this also accentuates the problem of producing too many graduates for the existing job market.

In the final analysis, at the continental level, there is a considerable way to go before the 2015 goals can be achieved and the overall diagnosis is very clear: without enormous and, above all, better targeted efforts, the achievement of the education for all goals will not be delayed for just one or two years, it will be put back several decades.

This said, the different observations that have been made outside of this average level give grounds for optimism: certain countries have made very significant progress, and, by observing the structural mechanisms that have made their performances possible, we can learn valuable lessons for the benefit of those countries that are still a long way from achieving the education for all goals.

The third section («Achieving Results: Options and Priorities for Public Policies») therefore examines all of the available means for establishing the goals and policies.

The thinking behind this third section is not to propose one single policy but rather to give a realistic appraisal of the scope for changes relating to resources, major policy parameters, strategic planning and management of education. The aim is also to evaluate the improvements resulting from the chosen modifications and in this way, to promote the debate, choice and implementation of effective policies.

The mobilization of resources is the first dimension to be explored. Even when comparisons are based on countries that have a comparable GDP per inhabitant, the combination of the tax burden rate and budgetary priorities leads to the existence of very different situations from one country to another.

However, although the mobilization of a sufficient level of resources is a necessary requirement, it is not enough in itself to achieve the educational goals. Indeed comparative studies of education in Africa typically show that these differences in available resources act as a very poor indicator of performance in the educational field and for the social returns of investment in education in general.

The difficulty thus lies in evaluating the overall performance of the education system in relation to the goals, which Section 1 encourages us to consider as being distinct for the lower and higher parts of the educational pyramid.

For the lower parts of the systems, the social benefits, including those of an economic nature, are linked to universalization in the framework of the fight against poverty and inequalities, whereas for the upper part, the benefits depend on balancing numbers and quality with the needs of the job market: a delicate balance which is difficult to achieve.

This has consequences on the first level of choices concerning the use of public resources for education namely the distribution of resources for each level of the system, which must therefore take account of this desire to widen the base of the educational pyramid, and of the need to regulate numbers in the upper level.

Modifying the unit cost at each level of education provides additional room for manoeuvre at this first level of choice: with limited resources, a lower unit cost allows more children to be educated and vice-versa.

The challenge is therefore to find a level of unit cost that is compatible with the objectives of supporting demand and ensuring quality at each level of education.

Comparisons between countries or between schools within a single country show that differences relating to quality have a very weak correlation to unit costs. This can be explored in greater depth in the evaluations of the impact of the elements that make up these unit costs (in terms of inputs as well as with respect to the organisation of schools). There are several examples of this approach and it is possible to conclude that a judicious choice of inputs and modes of organisation can optimise the cost/efficiency ratio and bring about significant improvements at each type and level of education.

Another conclusion is that not all of the differences observed can be traced back to measurable characteristics. These findings are most striking at the classroom level, where the learning actually takes place. Here, the differences in educational levels, initial training and status of primary school teachers can only explain a very small proportion of the differences between teachers. The hypothesis is that new methods of leadership and management must be sought in order to improve the efficiency of teachers, and indeed reinforce the entire system at the local level.

«Good management», at the different levels of education systems, is indeed one of the themes that have become an increasingly important preoccupation for the countries and their technical and financial partners over recent years.

To avoid being overly prescriptive, it is important to steer clear of the trap of proposing solutions that are not supported by a diagnosis. Sector studies performed in Africa indicate that this diagnosis should be performed at two levels: firstly by examining the equitable channelling of resources from the central level to the school level (allocation of teachers, in particular) on the one hand, and secondly by investigating how effectively these resources are transformed into educational results, on the other (measuring results at the school level with particular emphasis on the quality of learning and the survival of pupils).

There are no magic solutions based, for example, on the intrinsic superiority of one model to another, (The contrasts between the education systems of French-speaking countries, which remain highly centralised and those in English-speaking countries where the local authorities play a much more important role, immediately come to mind).

More to the point, the literature on the subject consistently identifies two weaknesses in African education systems. One of these relates to the social control that is exerted over the service which is provided at a local level, especially by the educational community. The other weakness concerns the structure of responsibility within the education system, which is largely disconnected from incentives to improve performance in terms of access, quality and equity.

At the end of this journey, we find that a double rehabilitation of the actors takes place. The first concerns major choices of policy and is based on the idea that there is room for manoeuvre at the steering and management levels. The second revolves around the idea that the best education policies are worthless if they are not put into practice, which requires a structure of responsibility and imputability, especially with respect to the users.





S e c t i o n 1

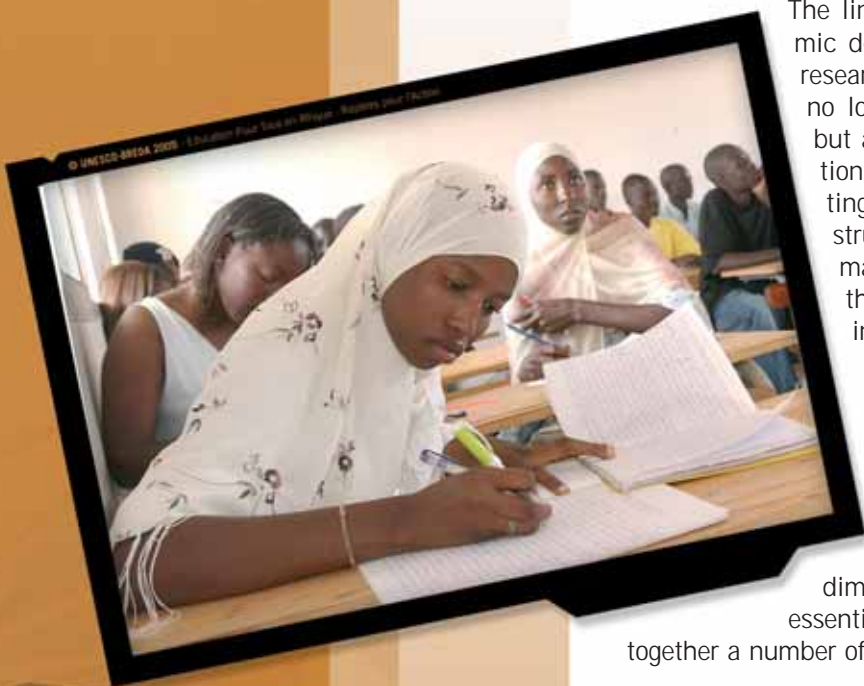
Education -
the springboard
for economic
and social
development
in Africa

Education is an end in itself and an individual right. That does not necessarily mean that all educational expenditure is good, whether for the individual or the community. In the African context, where the resource constraint is strong, choices have to be made. Therefore, the benefits expected from education must necessarily be specified more exactly according to the educational level and objective. That is the first step towards the necessary trade-offs of educational policies.

The link between education, growth and economic development is becoming increasingly well researched : the impact of education on growth no longer only takes stock into consideration, but also the distribution and quality of education. More specifically, it is also useful to distinguish education's impacts according to the structure of the economies which are still mainly dual economies. Part 1 focuses on the exploration of these different dimensions in the African context.

However the ultimate goal remains human development for which an acceptable level of wealth and favourable employment dynamics are essential, yet insufficient, factors. The study on education's impacts on a certain number of key dimensions of human development is therefore essential. Part 2 focuses on this issue. It brings together a number of available surveys and analyses for Africa.

The justifications for educational investments should be clearer subsequent to these first two parts. But if the financing is justified, how should it be split between the State and individuals? An analysis in terms of public goods soon makes plain the unique status of primary education, yet it is not unfounded, in the context of a «social pact», that the public service finances the other education levels. And yet it is necessary, in this case, that the public bid does not hedge individual incentives or a more optimum allocation of public resources: This is the focus of part 3.



1.1 Economic justifications for educational investments

1.1.1 Education as a growth vehicle of economies

Seen from an economic viewpoint, education is an investment: today it is an expense that should produce added wealth and wellbeing tomorrow. **Education brings about an increase in the human capital stock**, which includes all the factors referred to as «incorporated factors» that could influence productivity (like health, etc.). Due to the importance of education amongst all these factors that make up human capital in the broad sense of the term, looking into its specific impact on growth can be justified.

Have the countries whose population benefited more from educational efforts become wealthier as a result of this? It is difficult to untangle the two theoretical mechanisms at work by which education has productive value, and it is difficult to exactly quantify the causal impact of education on past economic performance (see inset 1.1), nevertheless, there is a **consensus to make education an essential prerequisite for economic take-off**.

Education, an essential pre-requisite for economic take-off

■ Inset 1.1 : Education and growth, economic literature review

Two opposing approaches describe the mechanism by which education contributes to wealth creation.

- › One deals with the human capital as an analogy of physical capital: a source of wealth whose accumulation raises production levels. In this framework, **education is a factor of additional material production**.
- *What is the relevance of educational policies in the long term?* In this model, the accumulation of factors has increasingly weak impacts on production due to decreasing yields. In the long terms, the only source of economic growth (excluding population growth) is technical progress which, universally shared, in the end grows at the same pace in all economies. The long term result is that the educational policy has no impact on the economy's growth rate, but it can affect wealth levels that grow concurrently.
- *What are the empirical results?* Accumulation model estimations link the GDP growth rate to the growth rate of the level of education. The results are very sensitive to the measurement of the level of education and it emerges that «the most exact measurement does not allow us to highlight an effect of the growth of the level of education on GDP growth».
- › The other approach considers that the human capital directly impacts the economy's growth rate. In this framework, education to a lesser degree determines the production level to given technology than individuals or economies' capacity to transform, innovate or adapt to change.

Education is therefore at the heart of dynamic learning phenomena.

- *What is the relevance of educational policies in the long term?* In the long term, the growth rate no longer depends on the growth of technical progress but on the investment made in human capital by the various economies. This approach bestows a central place on educational policies that can have a sustainable impact by not only affecting the production level but also its growth rate in the future.
- *Which level of education should be favoured?* Economies referred to as «adapting» economies and situated close to the technological boundary need to contribute to technological innovation and must have a highly-qualified labour force. This is why a substantial investment in higher education is so relevant. Economies referred to as «imitating» economies and situated far from the technological boundary but with a great potential to assimilate technologies produced elsewhere, as a matter of priority, need to invest in educational levels which favour the implementation of new techniques, i.e. primary and secondary education.
- *What are the empirical results?* Estimations for the innovation/adaptation models link the GDP growth rate to the level of education (and not the growth rate of education). In addition, the economy's growth rate is on the one hand correlated to the education stock - for the capacity to innovate - and on the other hand to a variable that characterises the catching-up effect of technical progress - for the capacity to adapt. These endeavours reveal an impact of the level of education on the differentiated growth in wealthy countries (it is the direct impact of the education stock at work) and in poor countries (it is the indirect impact via the catching-up process of technical progress at work).

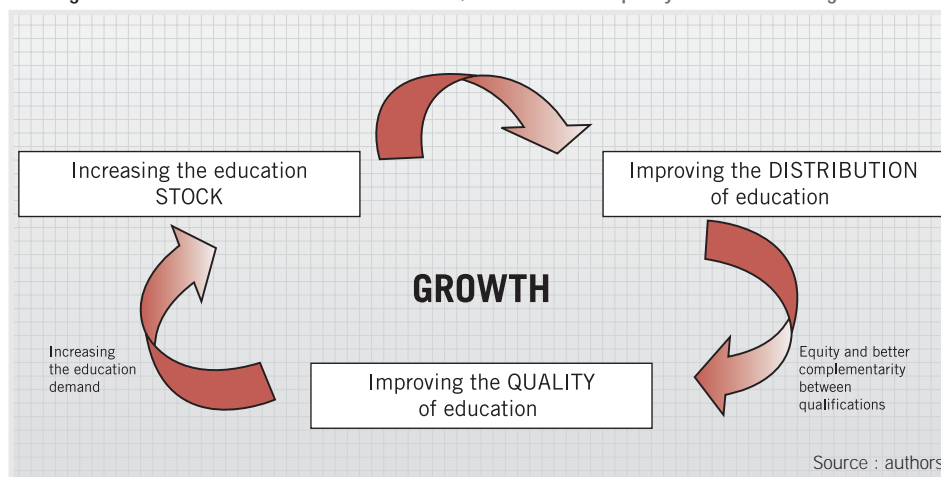
Source : Gurgand (2004)

To ensure that education contributes further to the economic growth process in sub-Saharan Africa, efforts in three directions are required: increasing the education **stock**, improving the **distribution** thereof, both in terms of its equity and pertinent adjustment to the employment structure, and finally ensuring that **quality** education is provided from the classic point of view of skills that are acquired.

In fact, there is a **cumulative process between stock, distribution and quality of education** that could either lead to the implementation of a virtuous circle between human capital and growth or keep the country in the grips of poverty (see diagram 1.1).

The global stock of education is not enough, the distribution and the quality of this education are essential for economic growth

■ Diagram 1.1 : The virtuous circle between stock, distribution and quality of education for growth



1.1.1.1 The impact of education stock on growth

The **education stock has to be massively increased** to reach the **critical threshold** of human capital from which a sustainable development process can begin. As long as the education stock remains below a certain threshold, access increasing by a few percentage points cannot be linked to growth in a linear manner (see diagram 1.1). In sub-Saharan Africa there are still many countries that have yet to reach this minimum educational foundation. On this continent, an incremental strategy for primary education will not be decisive, nor would it be a protection from possible declines as was sometimes observed during the past two decades, and **only an ambitious policy will bear fruit** (Berthelemy and Arestoff, 2002). This means continuing with efforts regarding both the offer and demand side of education to accelerate the pace of accumulating human capital and it argues in favour of positioning education at the heart of development strategies.

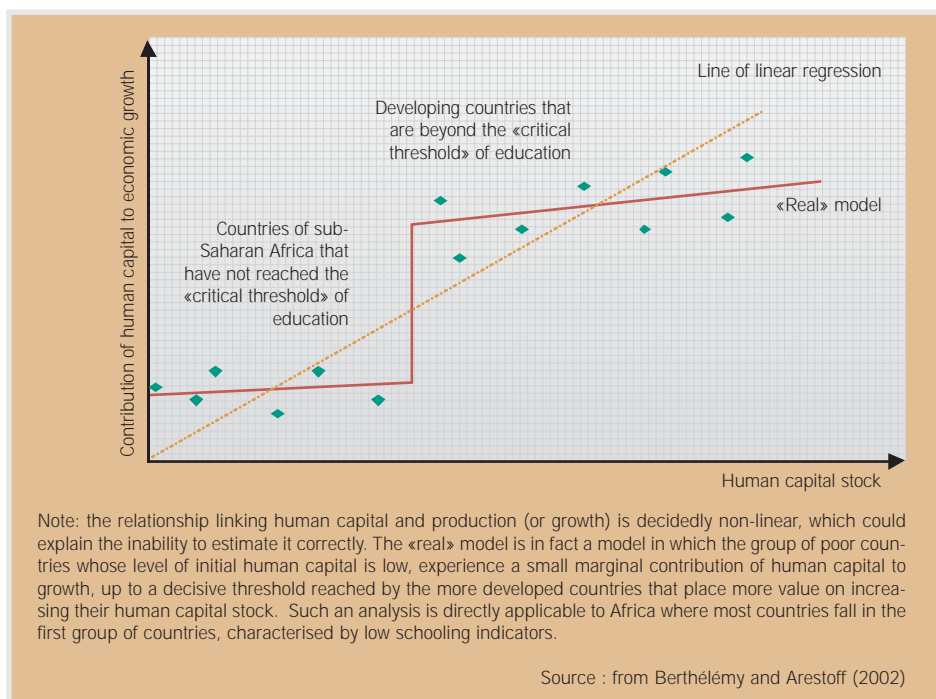
However, it is important to note that an increase in the human capital stock is not a sufficient prerequisite to promote growth. Recent empirical studies insist on the fact that human capital's contribution to economic growth can be minimal if: (i) the other supplementary production factors essential to the growth process, such as infrastructures for example, are lacking. (ii) the country finds itself in the throws of an adverse macroeconomic context (extreme shocks, growth volatility, market distortions, political instability, etc.).

But at the same time this means that the country and the technical and financial partners⁸ that support them, should dare to make **a large-scale change**, what the UN Millennium Project calls the «big push», in favour of total, and not partial, achievement of human development goals in general, and universal primary enrolment in particular.

To reach an educated population's critical threshold, educational policies in Africa should be ambitious and be on a different scale

⁸ From being referred as «donors», bi- and multilateral agencies, progressively become technical and financial partners (TFP) and the semantic changes denotes the will to be seen more as a partner as well as a logic of co-responsibility now at work in order to reach the Millennium Development Goals .

■ Graph 1.1 : Illustration of the relationship between the human capital stock and growth according to education levels



1.1.1.2 The impact of the distribution of education on growth

a) The positive outcome of a more equal distribution

The quality of human capital counts for much, therefore recent studies insist on the importance of equity in the distribution of human capital to increase the impact of education on growth. The results are very clear regarding the impact of the initial inequalities of the distribution of wealth on economic growth: an economy in which the soil, capital and human capital are distributed very inequitably will generally record a lower growth rate than a country in which resources are distributed more equitably amongst inhabitants (Thomas and *alii*, 2000; Birdsall, 1999). This is reinforced by the very specificity of the «human capital» asset which is a non-transferable incorporated asset between individuals: as a result, an initial inequitable distribution of human capital cannot be corrected.

In the African context, **the beneficial impact of equity**, in the distribution of human capital, on growth **is based on the finding of a broad spectrum of basic education's positive impact on productivity, whatever the sector of the economy:** traditional and informal sectors, of course, but also not highly qualified jobs of the modern sector. On the contrary, in Africa, **the concentration of human capital would only be compatible with an increase in productivity through intensive choices regarding capital and technology** which are on the one hand not very likely due to the weakness of the economy's infrastructures and general structures, and on the other hand are undesired due to the increase of inequalities that result from it in the distribution of revenues.

More fundamentally, amongst the pertinent development paths for African countries, many authors nowadays consider that it is better to target the adjustment of existing technologies

In Africa, the inequalities in the distribution of education and the appropriation of public resources in education are particularly deep-seated

than a hypothetical connection with the technology boundary that requires advanced research. This growth path is largely based on an adequately-educated working population to implement productions derived from existing technologies. This argument should be taken into consideration, in the case of countries that have already reached universal primary enrolment, in favour of a progressive generalisation of a good quality lower secondary education. A growth-promoting strategy in Africa therefore includes the equitable distribution of human capital that can only come into play progressively due to, in particular, the deferred effects of a less inequitable education policy, as the initial situation is not favourable.

In Africa, the inequalities in the distribution of education are particularly deep-seated. This great concentration is largely due to the weakness of its average level of education, but it is also a result of equity-opposing educational policies.

There are large social educational disparities based on gender, geographic location and income group: a study on 21 African countries for the various primary education indicators shows that the extent of disparities is 0.16 between boys and girls, 0.37 between rural and urban indicators and 0.48 between the first and last income quintile respectively (Mingat, 2003a). Available empirical data beyond the primary level show the image of education systems without which social inequalities deepen as one moves up on the school ladder. No children from the poorest quintile in Cameroon and Kenya pursue higher education while this situation prevails amongst 80.5% and 73% of children respectively from the richest quintile.

■ **Table 1.1 : Inequalities in the duration of education according to the income quintile (population 5-24 years)**

	Educational attainment	Q1 (20% the poorest)	Q2	Q3	Q4	Q5 (20% the wealthiest)	Total
Cameroon (2000)	Out of school	24	24.4	21	14.4	16.2	100
	Primary	20	21.2	22.4	18.1	18.3	100
	Lower secondary	5.7	9.9	15.2	21.8	47.5	100
	Upper secondary	1.9	4.1	4	21.8	72.6	100
	Tertiary	0	0	2.5	17	80.5	100
Gambia (2000)	Out of school	29.5	23	20.3	17	10.2	100
	Pre-primary	7.9	20.1	15.3	23.1	33.6	100
	Primary	14.4	22.8	18.8	21.1	22.9	100
	Lower secondary	5.3	15.2	17.3	25.7	36.6	100
	Upper secondary	1.0	9.5	13.1	28.9	47.5	100
Tech. and tertiary	0	3.9	13	27.3	55.8	100	
Guinea (2002)	Out of school	21.7	22.3	21.1	20	15	100
	Pre-primary	19.3	12.5	18.7	20	29.6	100
	Primary	19.3	18.4	19.4	20.4	22.5	100
	Lower secondary	14.7	13.9	17.3	19.1	35	100
	Upper secondary	10.2	11.5	13.6	18.1	46.7	100
Tertiary	5.1	11.9	20.5	19	43.4	100	
Kenya (2000)	Out of school	41.1	21.3	19.8	8.9	8.9	100
	Pre-primary	28.3	24.5	19.5	16.8	10.9	100
	Primary	21.3	23.6	22.1	19.8	13.3	100
	Secondary	8.5	14.7	14.3	26.3	36.3	100
	Tertiary	0	0	4.5	22.7	72.7	100
Lesotho (2000)	Out of school	33.9	26.9	18.2	12.7	8.2	100
	Pre-primaire	18.4	19.7	20.4	21.2	20.3	100
	Primary	17.1	22.4	22.3	20.6	17.6	100
	Secondary	5.7	10	19.8	27.5	37	100
	Tech. and tertiary	2.4	4	13.5	12.7	67.5	100
Niger (2000)	Out of school	22.7	17.5	22.9	21.3	14.6	100
	Primary	12	12.4	15.8	15	44.8	100
	Lower secondary	4.9	3.9	2.7	4.3	84.1	100
	Upper secondary/tertiary	0	2.2	2.2	6.5	89.1	100

Note :

The table should be read linearly. The lines provide information on the distribution of individuals having had the same number of years' study according to the income group (example: in Cameroon, amongst those individuals who completed their primary education, 20% belong to the poorest 20% of the population, 21.2% to the second quintile, 22.4% to the third quintile, 18.1% to the fourth quintile and 18.3% to the wealthiest 20%). The line total is 100.

Source :

- French speaking countries: from state reports of national education systems drawn up in Cameroon (World Bank, 2005) and Niger (World Bank, 2004)
- English-speaking countries: from MICS survey data

Correlatively, **the inequalities in the appropriation of public resources in education are substantial**: for 2002, in French-speaking Africa, 45% of education expenditure was concentrated in favour of the most qualified 10% (30% in English-speaking Africa)⁹ against 31% (figure for 2000) in the poor countries outside of Africa. This overall result is firstly due to a political choice to extend public financing to all education levels. Given that the pupils who remain in the education system for the longest period of time are disproportionately coming from the wealthiest families and that unit costs increase with each level of education, the largest part of education expenditure benefits children whose parents are the wealthiest. By assimilating this budgetary expenditure to a transfer of income in favour of households with children in the education system, **it is clear that in Africa, the poorest households only receive very little public transfers through the education policy**. The poorest 20% of the population always systematically receive less than 20% of the educational expenditure.

What is at stake with the poorest having access to a basic education service is even more important because of the combination of two phenomena:

- education supply policies are generally sufficient in obtaining good results at the beginning and middle of the process of universalising primary schooling, but at the end, for the last 20% to 30% of children still excluded from school and who are the most difficult to enrol at school, educational policies should combine adjustment measures of the supply and demand-stimulation measures, with higher marginal costs for enrolling these last 20-30 % as a consequence.
- it is also for these last 20% to 30% of un-enrolled children that progress is made towards less unequal educational expenditure: gains on equity are in fact not linear and accelerate as we move closer to the 100% target (see inset 1.2).

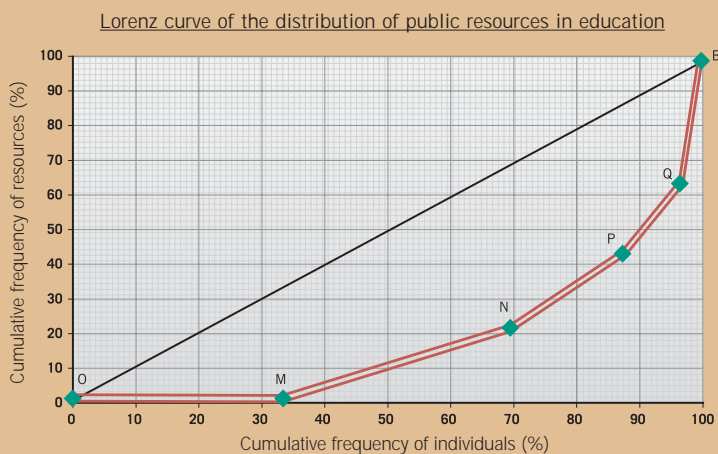
■ Inset 1.2 : Measurement of inequalities in the distribution of education expenditure

A common way of describing the structural distribution of public education resources, allocated to the various education stages, to individuals who benefit from it, is to draw up a Lorenz curve; it is calculated, on the one hand based on individuals of the cohort's cumulated values and on the other hand the volume of public resources accumulated by this same cohort of children. The indications given by the Lorenz curve are often summarised by the calculation of the Gini ratio that synthesises the degree of concentration of the distribution of public resources by one single figure.

The OB diagonal line relates to the equal distribution situation in which, whatever the value of X, X% of the cohort obtains exactly X% of public resources. The Lorenz curve (OMNPQB) relates to the effective situation of the distribution of public resources in education in the country. It generally deviates significantly from this egalitarian reference.

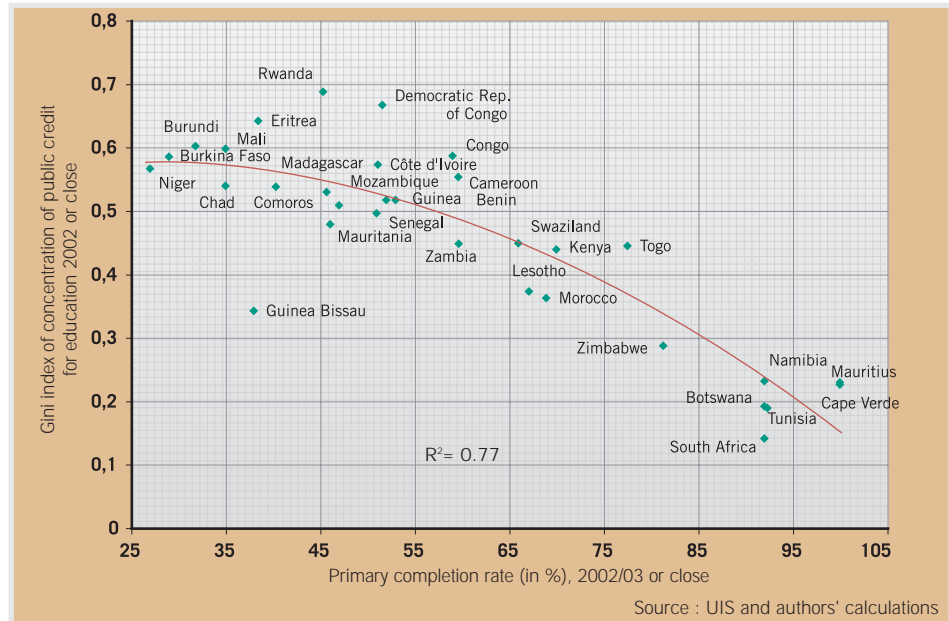
Two indices can be defined to assess the extent of the deviation in relation to the egalitarian reference:

- **the Gini ratio**, which is equal to the ratio of the area between the Lorenz curve and the diagonal line, to the area of the OAB triangle. By definition, this indicator is between 0 and 1, given that the closer the Lorenz curve is to the diagonal line, the smaller its numerical value and the greater the tendency of equal resource distribution.
- the second indicator **measures the share of public resources appropriated to the ten percent most educated people within the cohort**. It therefore relates to the part of public resources for education that have been used to finance the studies of individuals who have gone the furthest in their studies. This indicator provides a measurement of the more or less «elitist» (or «equal») aspect of the education systems.



⁹ Source : Pôle de Dakar (for the whole paragraph)

■ Graph 1.2 : Progress towards UPE and educational expenditure equity



The goals of equity in educational expenditure and those impacting growth therefore combine to plead in favour of a voluntarist policy to reach the goal of universal enrolment. The preceding paragraphs warned against «getting sucked into the middle lane» which means being satisfied with reaching a «respectable» primary completion rate (around 60 to 75%) whereas all benefits in terms of equity and efficiency are linked to the 100 % primary completion rate.

Goals of equity and growth combine to plead in favour of a voluntarist policy to reach the goal of universal primary education

Let us consider the education system as a pyramid resulting from the juxtaposition of levels ; the base would represent a proportion of children starting the first year of primary education, and the top would represent the proportion of pupils finishing off their higher education and each level represents a cycle with a slope reflecting the actual flux of children through this cycle. **The goal of equity and that of growth pleads in favour of an education pyramid base that is as wide as the school age it relates to.** The argument does not however question the principle of the existence of an education pyramid, only the fact that in many regards, in Africa, this pyramid is upside down (the base is - relatively - narrow and the top is - relatively - wide). The following paragraph seeks to establish the indications for an optimal form for this pyramid in relation to the structure of jobs, and therefore always in reference to an efficiency goal of the educational investment.

b) The effects of a distribution of education that is more adapted to the structure of employment

The education system's capacity to create an additional unit of efficient human capital requires **satisfactory correspondence between the education structures on the one hand, and productive and employment structures on the other hand.** In the dual economies of sub-Saharan Africa, relations between the production of graduates from the various levels and branches of the education systems and their integration into the modern and informal workplace are limited, on the one hand, by the modern sector's absorption capacity and, on the other hand, by work productivity in the traditional sector. Both the qualifications pyramid as a whole, and the specific training orientation for secondary, technical and tertiary, seem inadequately adapted to the productive structure.

The example of Guinea, given below, is a case in point:

■ Table 1.2 : Quantitative education-employment assessment in Guinea (annual flow 1996-2002)

Distribution of those leaving the education system			Distribution of jobs on offer					
Exit level	Number	%	Sector	Employment	Number	%		
Never attended primary school	15 400	14	Informal	Agriculture	60 100	54,6		
Incomplete primary education	37 400	34						
Primary schooling complete	13 200	12						
Lower secondary education incomplete	18 700	17		Other informal jobs			40 500	36,8
Lower secondary education complete	7 400	6,7						
Upper secondary education incomplete	7 800	7,1						
Upper secondary education complete	5 500	5	Modern	Other modern sector jobs	7 100	6,5		
Higher education incomplete	2 800	2,5		Middle jobs	700	1,5		
Higher education complete	1 800	1,6		Executive jobs	600	0,5		
Cohort total	110 000	100	All jobs on offer		110 000	100		

Little correspondence between the qualifications pyramid and employment which is detrimental to the valorization of skills in the economy

* This distribution is obtained from the enrolment profile in 2003/2004 and internal efficiency indicators in tertiary education.

Source : World Bank and Pôle de Dakar (2005)

Overall, the education system presents a **relatively unbalanced structure** in which not enough is done for the «low-end» and too much is done for the «high-end». This first level of inadequacy is increased twofold regarding the type of qualification: **unemployment of graduates** can co-exist with the difficulties employers encounter in recruiting in certain fields. Numerical inadequacy is clearly at play at all exit levels of the education system compared with the corresponding level of skills that could be valorized.

The effort made towards attaining adequacy is therefore of utmost importance. But, **quantitative adequacy is not all-important: at the same exit level, the productivity observed in employment can vary considerably according to the very quality of the education received.** This point will be discussed now.

1.1.1.3 The impact of the quality of education on growth

The **quality of education**, understood in the sense of academic capacities and skills assimilated by individuals, **is an important variable** in the process of economic growth in **as far as the individual's productivity** is not a direct **prediction from** the number of years of study or the degree obtained but **rather on knowledge and know-how actually learnt at school and implemented in the course of employment**.

The **definition of the quality of education is a much-debated subject due to its many dimensions** (it includes socialisation and civic goals which are of a different order than cognitive goals). However, to inform debates on the impact of the quality of education on growth, measurable dimensions of this quality must be used. This report focuses on two of them:

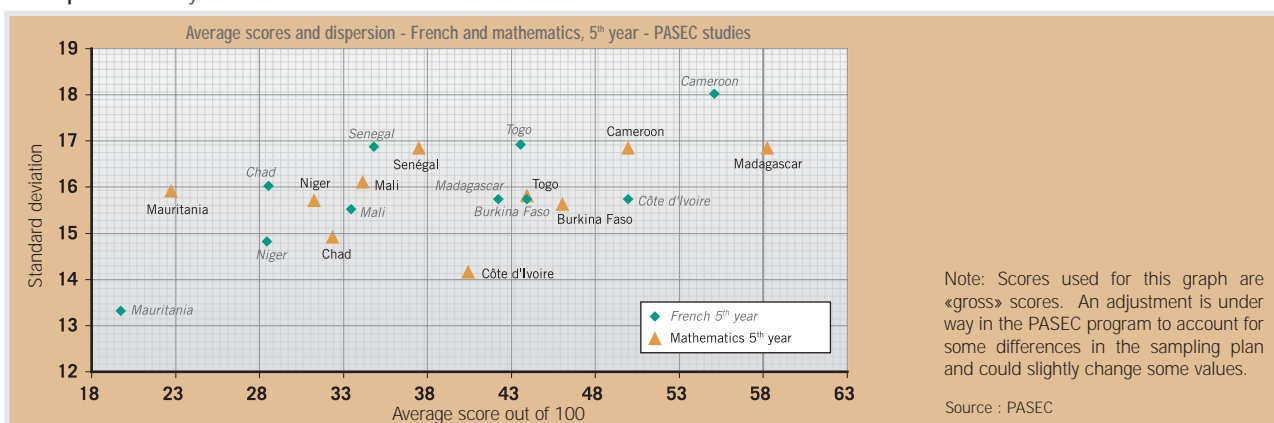
- *The first is the duration of studies which combined with the type of education received can be considered as a proxy of quality.* In fact, the following part will establish a very good correlation between the completion of primary education and the retention of literacy in adult life, but this relationship must be monitored for each country as it is not the same for all countries.
- *The second is the score of standard knowledge tests, considered a better approximation of the cognitive dimension of quality.* These empirical data on the level of pupils' achievement are rarer but are starting to become available for the African continent. This information will be used in the second section (and linked to the population's literacy on the framework of the AEQI+ index).

In the event that data from the standard tests are available, **it is useful**, on the one hand, **to go beyond the average scores obtained to put them into perspective with the proportion of the population that did reach the assessed level of education** (what is the use of having a good national score, but for a very small group of pupils, since we saw earlier the importance of reaching the «critical threshold» of the educated population) and on the other hand, **to take into account the deviations in the level between pupils from the same country** (it is most certainly not neutral from the point of view of equity, to observe major differences in the level of pupils from the same country).

This is the spirit of graph 1.3 that expresses, in the ten countries that participated in CONFEMEN's PASEC program, the average scores for the same standard French and mathematics tests in the 5th year of primary school (horizontal scale) and the dispersion of scores between the pupils of the same country (vertical scale). Not only can a great variety of scores in French and mathematics in the 5th year of primary school be observed, but also a significant dispersion of scores between pupils in some countries. Taking into account the «quality» adds a new dimension to the argument according to which the analyses according to the stock must be complemented with analyses on the distribution of education capital.

Heterogeneous quality can weigh heavily on the multiplying effect of education on economic growth

Graph 1.3 : Quality : differences between countries and individuals



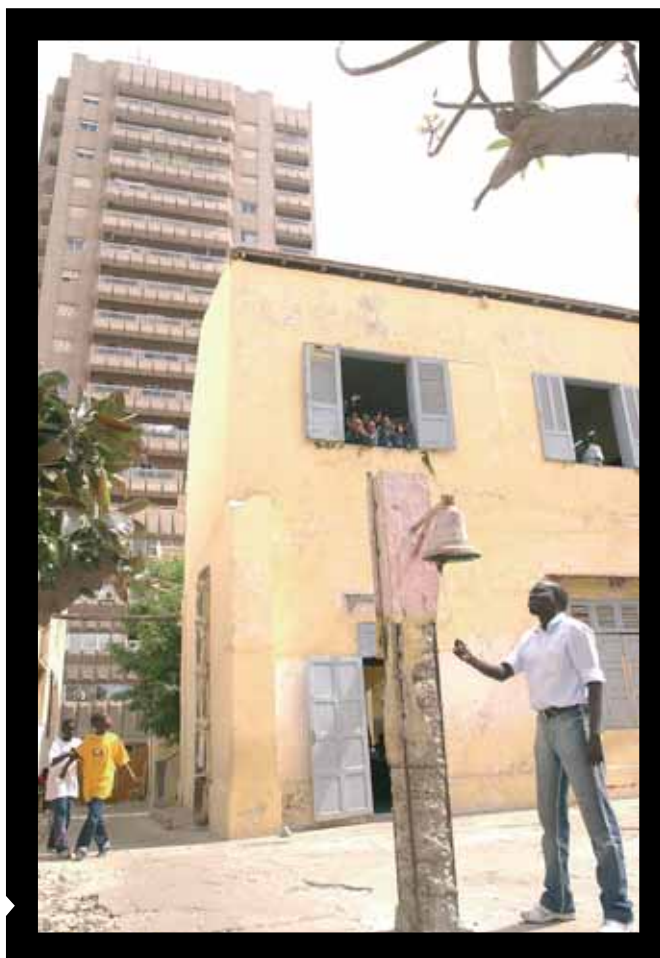
Quality measurements are available through standard tests during the first education stages, they are more uncommon in the end stages (technical and higher education). And here once again, it is likely that the productivity of individuals varies according to the general quality of a given end stage and that it is not equal from one facility to the next on the one hand and from one individual to another on the other hand.

An educational policy encouraging growth should therefore, over and above the training-employment link discussed in the previous section, make sure that a quality policy is developed to multiply the impact of improved numeral adequacy.

1.1.2 Education - stake and driving force of structural changes in African economies

The African economies are characterised by a deep-seated duality between a large traditional and informal sector and a smaller marginal formal (or modern) sector. Even if the share of the former progressively declines compared with that of the latter (or, according to some development scenarios, if the two progressively converge), this proportion is not called into question in the medium term. The empirical finding confirms that **positive basic education yields do exist as much in the traditional and informal sector as in the modern sector.**

- In the **traditional sector**, and in particular in the **rural areas** concerning agricultural activities, only a significant increase in productivity will mean that change can be initiated in the productive structure in favour of secondary and tertiary sectors. Two results are encouraging. The first shows that **the most productive farmers are those who attended school** (transmission channels are variable: More rapid imitation of the most efficient techniques, diversification of crops, etc.). The second shows that **the income from farming of individuals who completed primary school is considerably higher than that of illiterate farmers.**
- A more or less similar pattern can be observed in the **informal urban sector: successful integration into the informal job market requires minimal schooling background.** A recent study conducted on the seven capital cities of the UEMOA (Union économique et monétaire ouest-africaine) countries shows that the labour force in the informal urban sector have 5 years of schooling on average: 4.1 in Bamako, 4.3 in Ouagadougou, 4.6 in Dakar, 4.7 in Niamey, 5 in Abidjan, 5.4 in Cotonou and 5.9 in Lomé (DIAL-AFRISTAT, 2004). In addition, other studies, like the one presented below on Senegal, show a positive return on education in these sectors which is even higher than the return observed in the modern sector.



■ Inset 1.3 : The external return on education in Senegal



In Africa, the development of basic education is profitable and constitutes a prerequisite for transforming economies

- In terms of the **modern sector**, access to employment depends on having a high level of education, therefore the labour force in this sector are by far the most educated people in society. Therefore, in Senegal, the size of the modern sector grew between 1995 and 2001 and holds between 6 and 10% of jobs. During this period, the access is chiefly limited to the most educated people : 80% of the labour force who passed the school-leaving examinations, technical or tertiary graduates work in this sector (Foko et alii, 2004).

These trends appear in summary form in the **latest regional assessments** made on the economic return of educational investments (Psacharopoulos and Patrinos, 2002) and it emerges that **Africa is the continent on which:**

- (i) **private and social returns** (see inset 1.4) **on education are high:** one additional year's schooling is equal to an 11.7% increase in individual remuneration in Africa against an average of 9.7% in the world;
- (ii) private and social returns on education are much **higher in primary education** than in secondary or tertiary education: social returns amount to 25.4% in primary education against 18.4 % in secondary education and 11.3% in higher education¹⁰.

In addition, it emerges that private returns tend to decrease when the level of education improves and that at a given level of education, private returns decrease with the level of development (social returns follow the same trends).

10 Nevertheless a recent study by Schultz (2004) shows that in six countries of Sub-Saharan Africa, private returns are higher in secondary and tertiary education.

■ Inset 1.4 : Rates of social and private returns on education

The calculation of economic rates of return is based on the assumption according to which education is an investment. These returns can be measured on individual or aggregated levels by comparing the wealth differential and the expected well-being of this investment to the costs and expenses it brings about. These return rates are then referred to as «marginal» in the sense that they examine the profitability of an additional year of schooling, or that of a given educational level in reference to a lower level.

Formally, *the cost linked to the additional investment* in education consists of direct education costs at the expense of individuals or the community as well as opportunity costs that correspond to implicit revenues that have been dropped due to the time individuals spent on their studies. The *additional income at a given date t* is $Y_t - X_t$, where X_t represents the average income of individuals with the reference level of education. The current value (CV) of this income differential is linked to *the real interest rate (r)*

of the market through the relationship $CV = \frac{Y_t - X_t}{(1+r)^t}$, with the idea that CV today represents an income that, saved or invested in

financial assets, would yield exactly *the additional income* $Y_t - X_t$ after *t* years.

The rate *r* for which the current value of the additional income over the entire career is equal to the cost of the additional investment is the rate of economic return for education. Individuals or companies are indifferent to this rate about whether to invest in a year's additional education or in financial assets.

Private returns: calculation, implication and limits

Private rate of return for education = withdrawn profits - private costs borne directly or indirectly

- *Calculation.* Profits are assessed whilst taking the income differential into account between individuals of the considered level of education and individuals of the reference level of education over the entire career. Costs include individual education expenses (school fees, stationary costs, etc.) as well as the income of individuals with the reference level of education (for the estimation of the opportunity cost).
- *Implication.* The private rate of return is a **major factor of the demand for individual education** in the sense that the higher it is, the stronger the incentive for those individuals who seek this education. The private rate therefore relates to education's appeal to individuals.
- *Limits.* Some factors could both affect the level of education and income such as individuals' intrinsic competence achieved outside of the education system, individuals' social background, etc.

Social returns: calculation, implication and limits

Social rate of return for education = (private profits - private and social costs) + externalities

- *Calculation.* Regarding profits, social rates take income differentials before tax into consideration. Regarding costs, public grants for running educational institutions and potentially funding allocated to schooled individuals are taken into account. However, estimating externalities is complex and as a result social return rates for education are often underestimated.
- *Implication.* The social return rate is supposed to guide **choices governing the allocation of resources** between levels and types of education made by countries.
- *Limits.* Uncertainties remain on the relevance of the social return rate guiding education policy priorities. Two essential reasons:
 - the issue of the association between income and marginal productivity of work: countries intend to invest in education on the assumption that its contribution to national production would be effective. If the job market is competitive and if labour productivity is mainly linked to the education-training received, then individual income is a reliable indicator of productivity. Therefore in developing countries both the above-mentioned assumptions are considered questionable, especially due to the rigidities of the job market.
 - the issue of externalities: given that the intensity of external effects could be different according to the educational level (for example, a social, diversified mass primary education role - health/population/citizen rights - or training the educated elite at tertiary institutions), the result is that the structure of social rates could not reflect the structure of effective social priorities of the country.

Source : from Mingat and Suchaut (2000), pp.187-189

Table 1.3 : Private and social return rates according to level of education and world region

World region	Average number of years of schooling	Private return rates (%)				Social return rates (%)		
		Average rate	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
Africa ¹	7.3	11.7	37.6	24.6	27.8	25.4	18.4	11.3
South America	8.2	12	26.6	17	19.5	17.4	12.9	12.3
Asia	8.4	9.9	20	15.8	18.2	16.2	11.1	11
Europe, MENA ²	8.8	7.1	13.8	13.6	18.8	15.6	9.7	9.9
OECD	9	7.5	13.4	11.3	11.6	8.5	9.4	8.5
World	8.3	9.7	26.6	17	19	18.9	13.1	10.8

Notes : 1/ Sub-Saharan Africa; 2/ Middle East/North Africa

Source : Psacharopoulos and Patrinos (2002)

The unemployment of graduates is a reality in Africa that calls into question the profitability of public investments at the levels of technical, secondary and tertiary education

However, the significant values obtained for the secondary and tertiary levels must be put into perspective, given that these observations do not account for unemployment. When considering the facts, the observation of employment in the modern sector reveals that the **unemployment of secondary, technical and higher education graduates is a reality in Africa**. In the survey carried out on the seven capital cities of the UEMOA (*Union économique et monétaire ouest-africaine*) countries between 2000 and 2002, the unemployment rate increases with the number of years of study: it is less than 8% amongst out-of-school individuals and reaches 17% amongst those who continued with their education until tertiary level (DIAL-AFRISTAT, 2004). In Cameroon, in 2000/01, there are twice as many tertiary technical education graduates than suitable jobs on the market (CSR Cameroon, 2004). In this specific case, a very clear effect of downgrading of tertiary graduates can be observed which adversely affects graduates of the intermediary categories. In Guinea, between 1996/97 and 2002/3, the number of tertiary-trained individuals each year was two to three times higher than the number of modern jobs created each year; and in 2004, the executive stock (22,000) matched the total number of students (CSR Guinea, 2005).

Together with **the current imbalance between the job market and secondary and tertiary education that many African countries experience** is their further degeneration by an influx of new secondary and tertiary graduates. In this case, the problem is not only that of regulating the advancement from one level of education to the next, but also the necessary «reorganisation» of the tertiary levels which require optimal orientation choices for individuals and the community. From this point of view, the fact that higher education is free of charge and already constitutes a transfer from the community to the wealthiest individuals, could still be difficult to accept. In fact, as part of this general move towards more and more enrolment, it would be necessary to help the most disadvantaged populations even more who are even more disarmed in this race to higher education. This issue of public financing will be discussed in more depth in the third part of this section.

In total, the dynamic from an increase in school enrolment triggers:

- a threshold effect on growth, which in turn can increase the country's overall wealth and the likelihood of creating jobs;
- possibly adjustment pressure linked to the decrease in the need for labour in the sectors where employees have become more productive on average.

In a balanced development pattern, job creation in other sectors will absorb the labour surplus of the traditional and informal sectors and there will concurrently be an increased education demand for the tertiary levels which will be in line with a reality of individual and collective expectations of returns.

But these expectations are not such that the central stake of lifting the level of education of populations as the driving force of economic and social development will be called into question; the former goal has just been discussed and the second is at the heart of the next section.

1.2 Education and human development

Today, human development is firmly established at the heart of international goals. The Millennium goals are both the manifestation and vehicle of this.

The goal of universal primary schooling holds a unique place amongst the millennium goals for development in that it is closely linked to seven other goals set by the international community in the areas of poverty, gender, maternal and child health, endemic diseases, and environment. It furthermore contributes to the achievement of the other goals because of the economic and social impact both on an individual and collective scale on which it is dependant. (see Inset 1.5). The aim of this section is therefore to review why, in an environment with restricted resources, **education in general and primary education in particular, must become or remain a priority in the allocation of national resources, especially in the poorest African countries.**

The goal of universal primary enrolment is closely linked to the other MDGs



■ **Inset 1.5 : Why is the goal of education important to achieve the other Millennium Development Goals (MDGs)?**

Goal 1. Eradicating extreme poverty

› In the medium term, the reduction of poverty depends on economic growth. And yet, no country in the world has succeeded in achieving strong and sustainable economic growth without a large part of its population being literate. In addition, in most poor countries, the agricultural sector is the main driving force of economic growth. The process of growth can be strengthened if productivity is improved in the agricultural sector which can only be achieved through universal basic education. Finally, on an individual scale, the possibility of rising up out of poverty in rural and urban areas is directly linked to the number of years of schooling. The income of farmers and workers in the informal sector increases with their degree of education, which makes them less vulnerable to the risks of life.

Goal 3. Promoting gender equality and empowering women

› Girls having completed their primary schooling become long-lasting literate women; this allows them to benefit more from employment and income opportunities, better negotiate the use of resources in the household, better manage their sexual and reproductive health, better participate in social and political activities and therefore achieve increased independence in the private and political area.

Goal 4. Reducing the child mortality rate

› Women with six or more years of schooling are more inclined to take care of their child's health (inoculations, nutrition and acting when their child is ill). The mortality rate of children under 5 decreases with the population's level of education.

Goal 5. Improving maternal health

› Similarly, women with six or more years of schooling take better care of their own health (first pregnancy at an older age, spacing children, taking vitamin A during pregnancy, taking ante-natal classes and preventive ante-natal health care, and giving birth in a medical environment with qualified personnel). The rate of maternal death decreases with the population's level of education.

Goal 6. Combating HIV/Aids, malaria and other illnesses

› 50% of newly infected people in the world are youths. And yet, amongst youths between 15 and 24, half as few fall ill who have completed their primary education as those who have never attended school or who dropped out during their primary education. Education helps women in poor countries to better protect themselves against HIV infection through better information on the illness and their rights in terms of sexual health.

Goal 7. Ensuring the sustainability of environmental resources

› Through education, access to and the comprehension of information on environmental protection can be increased and it encourages the development of environmentally-friendly behaviour.

Source : from Herz and Sperling (2003)

1.2.1 The impact of education on the retention of literacy in adult life

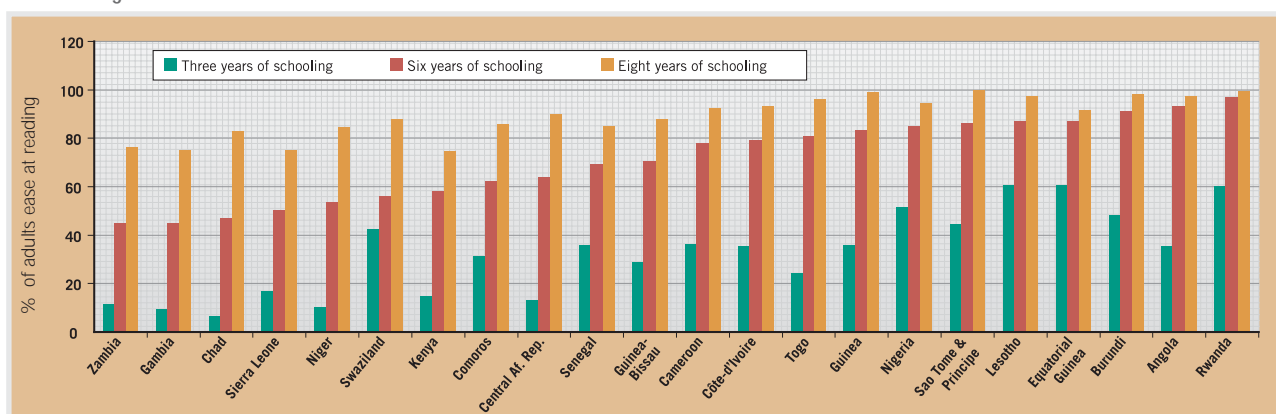
Completing primary education is essential for long-lasting retention of literacy

Retaining literacy in adult life is closely linked to the duration of schooling. According to empirical observations, **a minimum duration of schooling is necessary for literacy to be long-lasting**. This emerges as much in individual survey data as in aggregated data.

On average in African countries for which individual data are available, it is estimated that less than 1 adult in 3 is literate in adult life after having had three years of schooling, however the ratio climbs to 7 out of 10 for adults with six years of schooling, and it reaches 9 in 10 with eight years of schooling. The lesser increase in chances of literacy after the 6th year of schooling (13% on average per year between the 6th and 8th year of schooling against 31% per year on average between the 3rd and 6th year) strengthens the link between Universal Primary Education and the literacy rate (see graph 1.4).

¹¹ The duration of primary schooling is 6 years in 6 out of 10 African countries

Graph 1.4 : Proportion of adults (22-24 years) who can read with ease after three, six or eight years of schooling in 22 African countries.



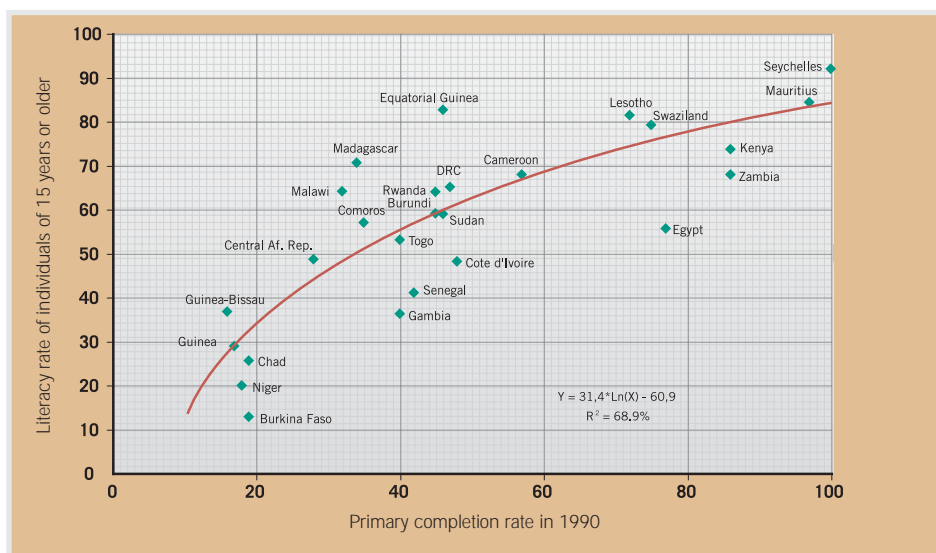
Note : countries are ranked by increasing order of the literacy rate of adults after six years of schooling

Source : - from the following surveys: MICS (Multiple Indicators Cluster Survey) for Angola (2001), Comoros (2000), Gambia (2000), Equatorial Guinea (2000), Kenya (2000), Lesotho (2000), Sao-Tome (2000), Swaziland (2000) and Zambia (2002)
 - from the QUIBB (Questionnaire Unifié des Indicateurs de Base et de Bien-être - Unified Questionnaire of basic and Well-being indicators) for Guinea (2002)
 - from Mingat (2003b) for the other countries

In some countries, over and above the duration of schooling **the type of education attended could impact literacy retention at adult age**. The deviation between the literacy rate of adults (22 to 44 years) who attended the formal education system and the rate of adults who attended the informal education system is for example 44 points in Gambia (MICS, 2000), 29 points in Chad (Mingat and Zein, 2004), 21 points in Senegal (Pôle de Dakar, 2003 Mingat et alii, 2002) and 19 points in Swaziland (MICS, 2000), every time in favour of the formal education system.

At an aggregated level, the adult literacy rate is positively associated with the primary completion rate. The impact of progress in primary completion on literacy rates seems to be greater for countries that are the furthest from the achieving the goal of Universal Primary Enrolment (see graph 1.5). Simulations indicate that the achievement of universal primary enrolment in Africa would decrease the adult illiteracy rate from 35% (situation in 2002) to 16% in 2015.

Graph 1.5 : The relationship between primary completion and literacy for adults who are 15 years or older in 25 African countries.



Note:
 Illiteracy rates are the rates observed from household survey- or population census data.

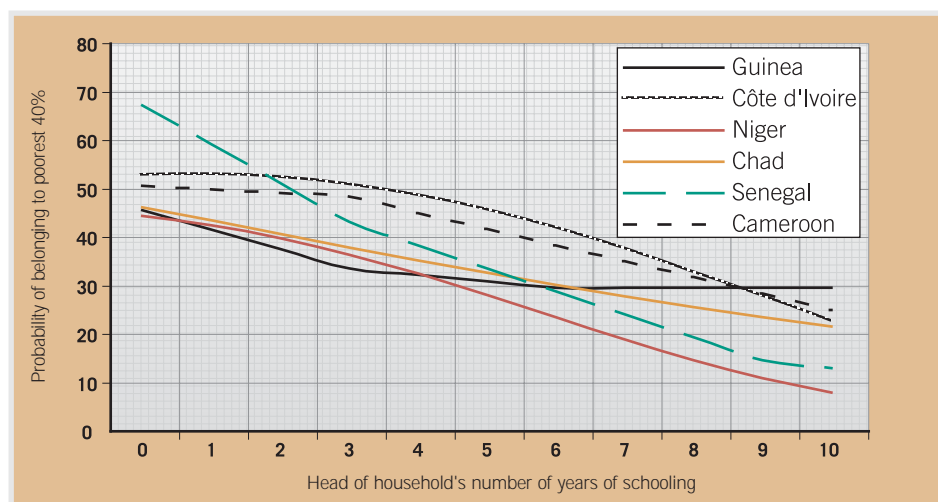
Source:
 - Comoros, Gambia, Guinea Bissau, Equatorial Guinea, Kenya and Sao Tome (MICS 2000),
 - Guinea (QUIBB 2002),
 - Zambia (MICS 2002),
 - Other countries (data from UIS from household surveys)

1.2.2 The impact of education on poverty

1.2.2.1 Alleviating the risk of poverty

Education decreases the risk individuals run of being in situation of (relative and absolute) poverty. Compared with individuals who never attended school, the risk of poverty for individuals who attended and completed primary school is significantly less. Beyond this level of education, additional years of schooling generally only have a marginal impact on poverty alleviation. For example, in Guinea, the probability of belonging to the poorest 40%, is 14 points less for individuals who completed primary school compared with individuals who never attended school (the deviation with individuals who completed their higher secondary education is only 8 points). This trend of poverty alleviation after at least four years of schooling is observed in the African countries for which data are available (see graph 1.6).

Graph 1.6: The probability of belonging to the poorest 40% according to the head of the household's level of education attainment in 6 African countries



Note : In Cameroon and Senegal, this involves the % of individuals under the national poverty threshold
Source: Cameroon (ECAM 2001), Côte d'Ivoire, Niger, Chad (MICS 2000), Guinea (QUIBB 2002), Senegal (ESAM 1995)

1.2.2.2 Breaking the intergenerational vicious circle of poverty

Education seems like an efficient way of breaking the vicious circle of intergenerational transmission of poverty. With the education of girls and female literacy in particular, the average number of years of schooling can be increased from one generation to another and, therefore, the next generation's economic situation can be improved.

In fact, several empirical studies conducted in the developing world show that the parents' level of education in general and women's in particular is a factor for requesting schooling and reducing disparities between girls and boys in school intake. For example, in Guinea, the likelihood of a child going to school when the mother is not educated is 57%; this rate increases to 88% when the mother has completed primary school. In Chad, schooling disparities between girls and boys, which is very apparent in cases where the mother did not attend school (likelihood of going to school is then 74% for boys and 47.6% for girls), disappear when she completed primary school (same likelihood). In this regard, a strong impact of female- as opposed to male education can be observed on child attendance. This is for example the case in Guinea where children from households run by women have a 12-point higher chance of receiving a higher education compared with children's chance from male-run households, keeping other conditions equal (the household's geo-

Complete primary enrolment protects individuals against the risk of poverty

Parents' level of education increases their children's chances of education

graphic location, the child's gender, number of school-age children in the household and level of education of the mother)¹³.

■ **Table 1.4 : Impact of parents' education on their children's schooling (% of children accessing the 1st year of primary school)**

	Country	Number of years' education of parents										
		0	1	2	3	4	5	6	7	8	9	10
% of access to primary schooling	Côte d'Ivoire	61.3	69.1	75.2	79.7	82.9	85.2	86.7	87.7	88.1	88	87.5
	Guinea	56.9	76.7 (incomplete primary)					87.8	87.3 (secondary)			
	Chad	61.1	77.2	88	94	97.1	98.7	99.4	99.7	99.9	99.9	100

Note : Impact of the level of education of the mother (Côte d'Ivoire, Chad) or a woman heading the household (Guinea)
 Impact of the level of education of the mother, head of household (Guinea)
 Source : Côte d'Ivoire (CSR, 2002); Guinea(CSR, 2005); Chad (Mingat and Zein, 2004)

Several mechanisms are put forward to explain female education's stronger impact on the education of their children compared to male education: (i) the fact that educated women have stronger negotiating powers in the household to influence the choice of resource allocation towards the children's education; (ii) the fact that they play a notably more active educational role by being more involved in their children's education; (iii) the fact that they are a «model» to their children, especially their daughters (UN Millennium Project, 2005b).

1.2.3 Education's impact on population and health variables

Sub-Saharan Africa presents the particular feature of being the region in the world where the demographic transition process¹³ only recently got underway and where child and maternal mortality rates are the highest in the world. The total fertility rate is two time higher in Sub-Saharan Africa than in other developing countries on average (5.1 children per woman against 2.8) and the rate of demographic dependence¹⁴ is 87% against 58% in the developed world. The mortality rate of children under 5 years is 174 for 1,000 against 88 for 1,000 on average in developing countries and the maternal mortality rate is 917 for 100,000 live births against 440 on average in developing countries.

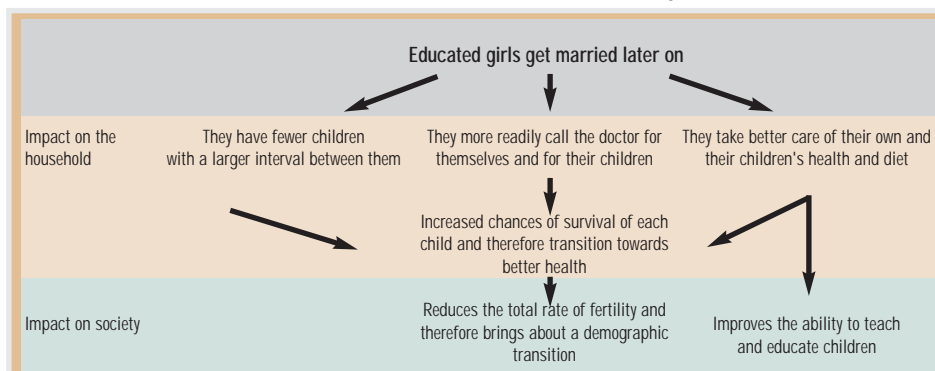
And yet it seems that **education has an even stronger impact on indicators of demographic and health results than activities of the health sector themselves** which is in itself a justification for the efforts of educating young populations in general and girls in particular (Summers, 1992). Many empirical studies, using household survey data, show that the change of **individual behaviour** as regards health (especially reproductive health) is mainly due to the education of women (see inset 1.6).

¹² Guinea (CSR 2005)

¹³ Demographic transition characterises the change-over from a «traditional» demographic system with high levels of mortality and fertility (but not necessarily identical amongst all populations) to a «modern» demographic system with much lower levels of the two variables

¹⁴ The demographic dependency rate is the ratio of non-working population (under 15 and over 65 years) over the working population

■ **Inset 1.6 : Education of women at the heart of transformations in society**



Source : Mehrotra and Jolly (2000), in the *Human Development Report 2003*, p.85

Educating girls is at the heart of the process of transforming society

1.2.3.1 Encouraging demographic transition and reducing the dependency rate

The drop in fertility levels may be due to marrying and falling pregnant later in life and a greater gap between children which is also achieved by the use of appropriate contraception.

On an individual scale, empirical observations made in four French-speaking African countries (Cameroon, Guinea, Niger and Chad) show that educated girls: (i) **actually get married and have children later than the other girls if they extended their education until secondary school** (there is practically no difference between uneducated women and those who completed primary school); (ii) tend to **have their children further apart** even if the quantitative impact is only a few months (in the Republic of Chad, the average increase of the interval between two consecutive births, between uneducated women and women who completed their secondary education, is only approximately 2 months, the first interval is 2.12 and the second 2.27; (iii) more commonly **use contraception** (in Cameroon and Guinea, women who completed primary school or continued their education in secondary school, are three times more likely to use contraception than uneducated women. The result is that the **number of births** tends to decline with the mother's level of education: in Chad, while a 29-year old woman who never attended school has had 4.8 children on average, this figure decreases to 4 children when a secondary education until the 9th grade was achieved and to 3.5 children when the last year of secondary schooling (grade 12) was reached.

Table 1.5 : The impact of the mother's education on population variables in three French-speaking African countries

Number of years' education	Mother's age at the 1 st birth		Interval between children (years)	Use of contraception (%)			Total number of children	
	Guinea	Chad		Chad	Cameroon	Guinea	Chad	Guinea
0	17.9	18.8	2.12	22	4	7	4.4	4.8
2	17.9	18.4	2.15	43	10	6.2	4.4	4.8
4		18.3	2.17			5.8		4.8
6	18.3	18.5	2.20		12	5.8	4.1	4.6
8	18.8	18.9	2.22	52 (gen.) ^{1/}	17	6.3	3.8	4.4
10		19.7	2.25	47 (tech.) ^{2/}		7.2		4
12	18.7	20.8	2.27	65 (gen.) 57 (tech.)	15	8.8	3.9	3.5

Note : 1/ «gen»: general secondary and 2/ «tech»: technical secondary
Source: Cameroon (CSR, 2004); Guinea (CSR, 2005), Niger (CSR, 2004), Chad (Mingat and Zein, 2004)

On a global scale, simulations performed on a sample of countries with a comparable level of development, show: (i) a 20-point increase of the primary gross enrolment ratio (which in 2001/2002 was 87% in Sub-Saharan Africa and 96% in North Africa) triggers 6.4 additional points in the percentage of women using contraception and (ii) that an increase of four years in overall school cover (school life expectancy was estimated at 5.7 years in Sub-Saharan Africa in 2003) would decrease the total fertility index from 5.1 to 3.9 (i.e. a figure that is close to the one observed in the North African countries in 2002 where, on average, women give birth to 3.1 children during their fertile life cycle).

1.2.3.2 Improving maternal and child health

In Africa, maternal mortality rate is one of the **few indicators of human development that has practically not changed since 1990**. The risk of dying after a difficult pregnancy is 500

times higher in Sub-Saharan Africa than in Europe and African women are amongst the people most affected by HIV/Aids. Here once again, **women's education encourages a behavioural change that is less detrimental to their health.** The observations from the four empirical studies (Côte d'Ivoire, Guinea, Chad and Niger) show a positive correlation between the number of years of schooling and (i) taking vitamin A during pregnancy, (ii) taking ante-natal classes and ante-natal preventive health care (iii) choosing assisted birth care with qualified personnel, a doctor, midwife or nurse and (iv) the degree of women's knowledge regarding HIV/Aids and how to protect themselves against it.

■ **Table 1.6 :** Frequency of behaviour in terms of maternal health according to the mother's level of education in four French-speaking African countries

Number of years of schooling	% Taking vitamin A during pregnancy	% Tetanus vaccine before giving birth			% Medical check-ups during pregnancy		% Births assisted by medical personnel			Index [0-12] of knowledge on Aids	
	Chad	Côte d'Ivoire	Guinea	Guinea	Chad	Guinea	Niger	Chad	Niger	Chad	
0	10.6	83	69.7	77.1	35.6	34.9	11.5	10.5	3.1	5.1	
2	16.1	88	77.1	86.9	55.2	45.9	13.2	17.5	3.6	6.6	
4	20.9	91	82.9	92.7	69.5	56.9	17.8	25.3	4	7.8	
6	23.7	93	87.2	95.9	77.6	66.9	27.3	32.2	4.4	8.6	
8	23.9	18.9	90.5	97.7	81.4	75.2	44.2	36.8	4.8	9	
10	21.3	95	92.9	98.7	82	81.7	55.4	38.7	5.3	9.1	
12	16.6	-	94.6	99.2	79.6	85.6	86.4	37.4	5.7	8.8	

Source : Côte d'Ivoire (MICS 2000), Guinea (EDS 1999), Niger (MICS 2000), Chad (MICS 2000)

The same studies show that **educated women are more concerned about their children's health and diet.** In Chad, the percentage of children who follow the full inoculation schedule increases from 12.6% in the case of an uneducated mother to 31% in the case of a mother who completed primary school, and to over 50% if their mother continued her schooling until the upper secondary level. Consequently, the mother's level of education influences the size and weight of her children and on their chances of survival during the first five years of life. In Guinea, 50% of children of uneducated mothers suffer from growth retardation; this figure declines to 36% if the mother completed primary school (the same relationship emerges between the mother's level of education and her children's risk of inadequate weight).

■ **Table 1.7 :** Frequency of behaviour in terms of child health according to the mother's level of education in three French-speaking African countries

Number of years schooling of mother	% Full inoculation schedule	% Taking vitamin A during pregnancy	Anthropometric status of children under 5 years				% Death children born alive	
	Chad	Chad	Insufficient weight	Eight (kg)	Slow development	Aist (cm)	Niger	Chad
			Guinée	Tchad	Guinée	Tchad		
0	12.6	38.1	31	10.6	50	82.1	26.2	59.5
2	21.5	51.4	26	10.9	45	82.7	24.3	56.8
4	26	57.5	22	11	41	82.9	22.3	54.1
6	31.1	61.5	18	11.1	36	83.1	20.3	51.3
8	36.6	64.3	14	11.2	32	83.2	18.4	48.5
10	42.5	66.5	12	11.2	28	83.3	16.4	45.7
12	48.7	68.3	9	11.3	25	83.4	14.5	43

Source : Guinea (CSR, 2004); Niger (CSR, 2005), Chad (Mingat and Zein, 2004)

Of course, educating girls is so much more conducive to progress in terms of maternal and child health that it is part of a dynamic sanitary framework for the supply of health care all over the country.

The overall advantages of education and those that are more specifically linked to the various types of education have been brought to light through the aspects presented in the two previous parts. They constitute the aspects on which to base deliberations on the importance of public financing of the various levels of education; such deliberations cannot be evaded in countries with extremely restricted resources.

1.3 How can public funding for education be justified?

1.3.1 Reverting to characteristics of education as a good

Theoretically, education can be defined as private good, largely because it is incorporated, and consequently to be the concern of private funding. **Public funding can however be justified as soon as individual choices regarding educational investments are at a level that would not allow for the achievement of communal positive externalities associated with these individual decisions.** For example, the fact that education constitutes a factor of economic growth and development does not in itself justify public funding, seeing that this impact on growth is first of all seen in a productive personal situation that justifies each individual's investment in education. This public funding can however become justifiable if individual investments, for various reasons, are at a lower level than the one that could be reached; this is the case of the possibility of a stock threshold effect mentioned earlier in part 1 on the relationship between human capital stock and growth.

The justification of public funding first of all involves some deliberation on the characteristics of education as a good. That said, a distinction must be made between the various levels and types of education in the course of these deliberations, given that the private dimension of educational investments clearly increases with the level of education reached, as illustrated by the «brain drain» phenomenon where individuals with a high-level of training have access to employment opportunities beyond the national framework.

These deliberations on the characteristics of education as a good require us to revert to its origin and value to individuals and the community. We can distinguish between the following values for each level of education:

- a direct or indirect **productive market value** (by accumulating knowledge and skills by selection) illustrated by the positive link between education and salaries on an individual level;
- an **unproductive market value**, of which many examples were given earlier by using the results of work on the impact of (basic) education on health, fertility, etc.;
- an **optional value**, achieving a level of education beyond one's own advantages is necessary to rise to the next level.

These elements are apparent on an individual level and on that of the community. The productive market value constitutes the building blocks of economic growth on the whole; communal education benefits in terms of health, demographic transition, citizen's rights, etc. are built on the non-productive market value; the optional value remains an extremely individual dimension based on expectations of earnings linked to consecutive levels of education.

Defining a «social pact» for public financing exclusively for basic education and selectively for other levels of education with a private property status

1.3.2 Basic education has public good status that justifies collective funding

Basic education¹⁵ is education for which communal and individual dimensions of the human capital value are most linked and, therefore, it practically reaches a status of public good that justifies communal funding. In fact:

- it constitutes the minimum foundation on which to base and satisfy the right to education,
- it presents the most risks associated with individual under-investment due to the threshold effect which is characterised by the relationship between human capital stock and growth,
- it contributes, by its productive and relatively broad spectrum, to poverty alleviation,
- recent research shows it allows for progress to take place that on dimensions with no market value which largely benefit the community.

1.3.3 Other levels of education have a mixed status that leads to some deliberation on the selectiveness of public funding

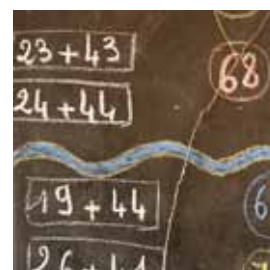
The other levels of education generally retain a status likening them more to private goods, even if, in very particular circumstances such as those that emerged after independence illustrated the need for national executives, the necessity for a public body for a great deal of public funding of secondary and higher education can be conceived of.

For these levels of education for which the direct productive market value is above all a result of real employment opportunities, massive and undifferentiated public funding can even largely slow down the consistency drive of individual and collective interests by retaining a positive private value for investments that have socially become little profitable (development of deviant rational behaviour as illustrated by multiple repeaters grant holders who extend their schooling to benefit from income benefits disproportionate to real market benefits due to their student status; disqualification that leads the most qualified individuals to take up the least-qualified positions, therefore encouraging the emergence of a vicious cycle of a race to become qualified, etc.) or by subsidising a «brain drain» due to the lack of sufficient employment opportunities for the most qualified individuals.

Even though it did not lead to as many analyses as the one associated to development of primary education, it can be thought that the non-productive market value of these levels of education could in itself have a stronger «private» value in that it becomes more individualised (intergenerational transmission of human capital, access to advantaged codes and networks, etc.).

Justification for public funding present at these levels is firstly and above all for selective public funding.

- This is the case when this funding (for the sake of efficiency and equity) is motivated in order to **allow all talents to come to the fore by removing obstacles in the way of schooling which, to the most disadvantaged individuals, means the absence of financial resources.**
- This is the case when funding is motivated in order to **facilitate and accelerate the orientation of individuals towards fields which are the most useful to the community,** all whilst this entails a clear vision of individuals' needs, selectivity and flexibility of funding which seem to have little to do with the current operation of public institutions.



¹⁵ It should be noted that the concept of basic education changes progressively, from a strictly primary educational sense to one that includes lower secondary education

1.3.4 Conclusion

This **justification for public funding that is more focussed on basic education** than on the other levels of education is more even **relevant in countries with severe retardation of primary education development** as observed in many countries taken into account for this report. In the move towards universal enrolment, the individual value of primary education is going to decrease: a human capital concentration threshold effect on growth strengthens the necessity to lower the individual cost of primary education of which the value for individuals will firstly deteriorate with its distribution and only improve when a higher growth path will have been reached collectively as a result of the threshold effect.

In the longer term, as part of massive primary education development, retaining real appeal for this level of education will depend on the improvement of its optional value by «reorganising» the market for the highest levels of education. If basic education has a positive effect on individual productivity in the traditional and informal sectors, that also means that eventually - and trends seen in developed countries attest to it - in these sectors, less employees would be necessary to achieve the same level of production. This constitutes a powerful driving force for the education demand for the highest levels of education; it will only benefit the community if the content of this education is in line with national economies.

Obviously the States that have, long ago, been committed to free access to secondary and tertiary education, will most probably not have the ability to drastically change this situation. That said, they should consider going into this new direction at least gradually, as was recently done when, over and above free education, policies on scholarships had to be reduced for secondary education that were in line with a need for national executives which was mainly met. Public funding, in this spirit, must in contrast improve the relevance of individual choices.

