



Republic of
Tajikistan



MILLENNIUM DEVELOPMENT GOALS

Tajikistan Progress Report



2010



*The opinions expressed in this report do not necessarily
reflect the views of the United Nations.*



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Acronyms and Abbreviations

ADB	Asian Development Bank
AMFOT	Association of Microfinance Organizations of Tajikistan
CDM	Clean Development Mechanism
CFC	Chlorofluorocarbon
CIS	Commonwealth of Independent States
DRI	Debt Relief Initiative
ECE	Economic Commission for Europe
ECO	Economic Cooperation Organization
ECONET	ECONET concept (Network of Life) ¹
EMIS	Education Management Information System
EMoC	Emergency Obstetric Care
EurRasEc	Euro-Asian Economic Community
GAM	Global acute malnutrition
GAVI	Global Alliance for Vaccines and Immunization
GBAO	Gorno-Badakhshan Autonomous Oblast
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse gases
HCFC	Hydrochlorofluorocarbon
HEI	Higher educational institution
HF	Health facility
HIPC	Heavily Indebted Poor Countries
HPP	Hydro Power Plant
IDA	International Development Association
IWRM	Integrated Water Resource Management
LFS	Labour Force Survey
MDG	Millennium Development Goal
MDR-TB	Multidrug resistance in tuberculosis
MICS	Multi-Indicator Cluster Survey
MoE	Ministry of Education
MoH	Ministry of Health
NCC	National Coordination Committee
NCHS -	National Health Statistics Centre
NCS	National Census of Schools
NDS	National Development Strategy
NGO	Nongovernmental organization
ODS	Ozone-depleting substances
PA	Protected area
PHC	Primary health care
PRS	Poverty Reduction Strategy
PVE	Primary vocational education
RES	Renewable energy sources
RRS	Rayons of Republican Subordination
SRC	Strategic Research Center
SS	Sentinel surveillance
SSC	State Statistics Committee under the President of the Republic of Tajikistan
SSE	Social Exclusion Survey
STF	Sewage treatment facility
SVES	Secondary vocational education school
TALCO	Tajik Aluminium Company
TB	Tuberculosis
TLSS	Tajikistan Living Standards Survey
TPP	Thermal power plant
TRCS	Tajikistan Red Crescent Society
UNDP -	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WHO	World Health Organization

¹ a system that combines protected areas of different status and territories with different nature use modes, integrated into socio-economic development context

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Progress in Achieving the Millennium Development Goals in Tajikistan

Millennium Development Goals	Indicators	Target indicator by 2015	Forecast on achievement of MDG		
			Likely	Potentially	Unlikely
Goal 1. Eradicate extreme poverty and hunger.					
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day	41,5	✓		
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.2 Share of poorest quintile in national consumption		✓		
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.3 Employment-to-population ratio				✓
	1.4 Prevalence of underweight children under-five years of age		✓		
Goal 2. Achieve universal primary education.					
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	Net enrolment ratio in primary education	100,0		✓	
	Proportion of pupils starting grade 1 who reach last grade of primary	100,0		✓	
	2.3 Literacy rate of 15-24 year-olds, women and men	100,0		✓	
Goal 3. Promote gender equality and empower women.					
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	Ratios of girls to boys in				
	- primary (%)	52,0/48,0	✓		
	- secondary (%)	53,0/47,0		✓	
	- and tertiary education (%)	53,1/46,9			✓
	Share of women in wage employment in the non-agricultural sector	50			✓
	3.3 Proportion of seats held by women in national parliament	30			✓
Goal 4. Reduce the child mortality rate.					
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	Under-five mortality rate	39,3	✓		
	Infant mortality rate	29,6	✓		
	4.3 Proportion of 1 year-old children immunised against measles	100,0	✓		
Goal 5. Improve maternal health.					
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio	30			✓
	5.2 Proportion of births attended by skilled health personnel	90		✓	

Millennium Development Goals	Indicators	Target indicator by 2015	Forecast on achievement of MDG			
			Likely	Potentially	Unlikely	
Goal 6. Combat HIV/AIDS, tuberculosis, malaria and other major diseases. Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	HIV prevalence among population aged 15	not more than 2500		✓		
	Condom use at last high	100		✓		
	Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS	100		✓		
	Incidence and death rates associated with malaria	not more than 15		✓		
	Proportion of children under 5 sleeping under insecticide-treated bed nets	100		✓		
	Incidence, prevalence and death rates associated with tuberculosis	not more than 125		✓		
	Proportion of tuberculosis cases detected and cured under directly observed treatment short course	100		✓		
	Goal 7. Ensure environmental sustainability.					
	Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	Proportion of land area covered by forest CO2 emissions, total, per capita and per \$1 GDP (PPP) Consumption of ozone-depleting substances	...*			
	Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	Proportion of population using an improved drinking water source Proportion of population using an improved sanitation facility	97 74	✓ ✓		
Goal 8. Develop a global partnership for development						
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	8.1 The unemployment rate among youth 8.2 The volume of external debt		✓ ✓	✓		
Target 8.B: Address the special needs of the least developed countries	8.3 Debt service as a percentage of exports of goods and services Access to computers per 1000 population		✓	✓		
Target 8.C: Achieve debt sustainability in the long term Target 8.D: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	Telephone and cellular subscribers per 1000 population		✓			

*No indicators in the National Development Strategy (NDS) for the period until 2015.

ACKNOWLEDGMENTS

This report, which is another progress report on achieving the Millennium Development Goals, has been produced in more challenging conditions than the previous ones. This is explained by the onset in 2008 of the global financial crisis, which has made significant adjustments in process of fulfilling the tasks outlined by the Millennium Declaration 2000. The above-mentioned adjustments, unfortunately, have had a negative effect.

Many of the data collected for sections of the report reflect the inertia of the “quiet”, i.e. pre-crisis years, and required review and additional estimates, and the holding of numerous discussions with experts, senior officials of ministries and departments, and representatives of economic circles.

Therefore, the experts extend their gratitude to United Nations agencies in Tajikistan for their financial and technical support, and the Ministry of Economic Development and Trade, the Ministry of Health, the Ministry of Education, the Ministry of Labour and Social Protection, and other departments. They were sympathetic in understanding importance of the assignment and readily providing the necessary data, and also expressed their views on the impact of the global financial crisis on the pace and efficiency of the progress towards meeting the MDGs in Tajikistan.

The Project team also thanks the UNDP Regional Centre in Bratislava for providing the necessary methodological materials and the staff of the UNDP Country Office, who created a constructive and effective working atmosphere and mobilized a project team for highly productive work.

INTRODUCTION

Given the current challenges of social and economic development, and lessons learned in the previous strategies the key development and poverty reduction policy areas in the current strategy, aimed at openness, transparency and accountability of the government policies to the public, were identified as follows:

- improvement of governance to enhance transparency, accountability and efficiency of government agencies in combating corruption and creating enabling macroeconomic, institutional, regulatory and legal environment for development;
- promotion of sustainable economic growth and diversification of the economy through private sector development and attracting investments, particularly in the energy sector, transport infrastructure and industries contributing to food security, expansion of economic liberty, promotion of property rights and strengthening cooperation between the Government and the private sector;
- strengthening of human potential by making social services more accessible for the poor and improving their quality, and encouragement of public engagement in development and promotion of social partnership;
- Integration of environmental issues into all sector programmes and projects and social development agenda.

It should be noted that, due to the implemented governmental socio-economic development programmes and strategies, poverty in Tajikistan has been consistently reduced from 72.4% in 2003 to 46.7% in 2009.

Based on the key social and economic development indicators for 2010 and prospects of the country development for the 2011-2012 period, GDP growth during this three-year period is projected at 5.0% in 2010 year, 6.5% in 2011 and 7.0% in 2012, respectively. GDP growth per capita in 2012 is expected at 19.5%, compared with the same indicator in 2007, and the poverty rate to be reduced to 41.4% in 2012.

It is known that the Millennium Development Goals (MDGs) are a global action plan to reduce the main indicators of the poverty. Back in 2000, Tajikistan signed the United Nations Millennium Declaration and took up the actions towards achieving all eight MDGs, put forward in this Declaration, by 2015. The process to meet the goals has been uneven, although much attention is paid to the implementation of Poverty Reduction Strategy (PRS) and the National Development Strategy (NDS) in Tajikistan, the two strategic papers that represent a detailed reflection of the MDGs in respect to the country's goals and targets. Since 2000, monitoring progress towards reaching the MDGs in Tajikistan has been carried out by expert teams, sum up to make general conclusions for this purpose, who prepared and submitted two MDG reports, in 2003 and 2005. The MDGs Needs Assessment Report–2005 presented reasonable estimates of the required resources to achieve the MDGs, together with a detailed analysis of trends and challenges with respect to each Goal. It also outlined the key directions to drive the process of achieving the MDG targets in Tajikistan.

The current report by its nature is quite different from the previous ones, since it aims to assess the impact of the global financial and economic crisis on the pace and progress towards

the MDGs in Tajikistan. In addition, it provides a detailed summary of the new challenges, such as the lowered level of education of young people, increased unemployment, a worsening in drinking water quality, deterioration of sanitation, the difficulties with energy supply, onset and the rapid spread of infectious diseases, malnutrition prevalence and food crisis, among others. There are new risks – that the progress made in previous years might lose its momentum in a short period of time. These risks and threats have emerged mainly because of the 2008-2009 economic crises and are persistent to date.

This Country Report – 2010 belongs to the “second generation” of MDG Reports and focuses on raising public awareness and social mobilization through in-depth analysis of the current and recently emerged trends, rooted in the global financial and economic crisis.

The analysis conducted by the team of experts shows that there are various intensities of progress, not only by the MDGs, but also by individual indicators. It may be concluded, according to some indicators and MDGs, that unless the current trends are accelerated, the challenges identified by the Millennium Declaration and faced by humanity and the least developed countries, including Tajikistan, are unlikely to be resolved by 2015. For Tajikistan, such problems include, inter alia: broadening gaps in socio-economic development between this country and highly advanced countries in the region, the continent and world; widening of income and consumption gaps between the decile groups; deteriorating health and education services, and students' learning; worsening of child and maternal health indicators; high infant and maternal mortality rates; environmental degradation; reduced forest areas; increasing erosion of pastures, hillsides and frequency of natural disasters; inequalities in education, employment and training of women, and their low representation in the government authorities; an increased volume of external borrowing; the deteriorating structure of the government debt; a reduction of foreign direct investment; and the lack of coordination among international and foreign organizations operating in Tajikistan.

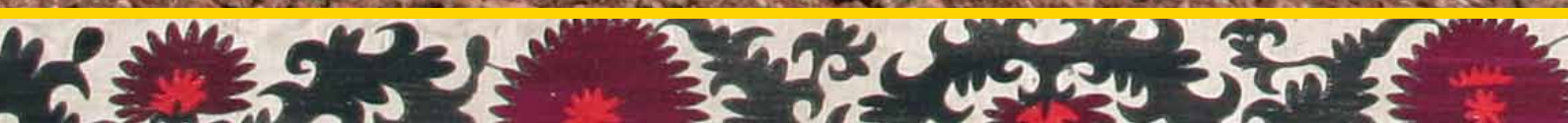
The perception of challenges and risks in Tajikistan is weakened by statements about the end of the global financial crisis, while the latter's impact prevents the resolving problems of food, fuel, environmental, etc. Thus, a drastic reduction of remittances of migrant workers has led to an evident lowering of consumer demand. Hence, this report concludes about the relevance of establishing the effective mechanisms and tools in order to address the challenges and risks faced by the country under new circumstances, making it difficult to achieve the MDGs. Such ongoing arrangements seem to have merit. Therefore, since the majority of labour migrants from Tajikistan were working in the Russian Federation – the country worst affected among CIS countries by the financial crisis, a more rigid state regulation of migration assumes ever greater importance in order to diversify the number of recipient countries of labour forces, together with measures to promote employment and maintain average wages of workers within the country. Adequate coordination measures can lead to success in other areas by strengthening the effectiveness of interventions to reach the MDGs.





GOAL 1:

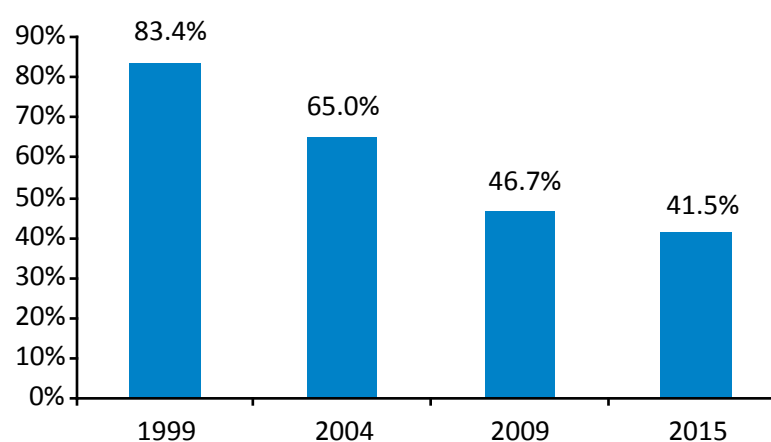
Eradicate extreme
poverty and hunger



Indicators:

- *Proportion of population below \$1 (PPP) per day*
- *Share of poorest quintile in national consumption*
- *Employment-to-population ratio*
- *Prevalence of underweight children under-five years of age*

Figure 1. Trend of poverty reduction



Target 1: Halve extreme poverty.

The poverty reduction trend and influencing factors

As a result of the two poverty reduction strategies (PRSs) implemented in Tajikistan, poverty, both relative and absolute (or extreme), tends to decrease consistently. From the start of implementation of the first PRS (1999) to date, the relative poverty has declined from 83.4 to 51.0%. This means that during this period, poverty was reduced by 2.3% per year on average. The extreme poverty (\$1.08 PPP per day) is currently at 15.0%, with an annual 3.2% decline on average, i.e. much higher than the overall poverty decline (Table 1).

Table 1. The main indicators of poverty among the population, %

	Total	Women	Men	Urban areas	Rural areas
Rate of relative poverty	53.6	53.9%	53.1%	49.4	55.0
Rate of extreme or absolute poverty	17.1	22.9	16.0	18.9	16.4

Source: Tajikistan Living Standards Survey for 2009²

2 Statistics Agency under the President of RT, Tajikistan Living Standards Survey for 2009. Poverty Assessment. December 2009. Report No. 51341-TJ. WB, 2010, pp. 14,16,17.

Table 1 shows a 6.1% higher poverty rate in rural than in urban areas. But rural areas have had a rapid decline in extreme poverty. This is very important when bearing in mind that 76.4% of the population lives in rural areas

In general, all of this shows that economic growth in the country was directed towards poverty reduction and suggests that the average income per capita per year of 20% of the poorest and richest populations increased by 13.6% and 5.7%, respectively. With respect to poverty reduction factors, the conducted surveys show that economic growth is the main poverty reduction determinant. According to the World Bank studies, during the 2003–2007 period, Tajikistan out of 18.9 percentage points a 17.4% poverty rate reduction achieved due to high economic growth and its impact, although public opinion confirms that this occurred as a result of remittances of external migrant workers; in 2008, it reached over US\$2.7 billion. But already in 2009, such transfers fell to US\$1.8 billion compared to the amount in 2008. It can be stated with high certainty that, in general, until 2009, the high rate of economic growth was the first factor among the poverty reduction factors, with the remittances of migrant workers as the second factor. The same is relevant to extreme poverty, which in the same period declined by 24.4 percentage points. Nevertheless, the decline in household income caused by the global financial crisis may suspend this downward trend in poverty reduction. It is estimated that a 10% decrease in the populations' ability to pay for goods and services may raise overall poverty by 10%. This is a very serious matter, bearing in mind that due to the economic downturn of 2009–2010, economic growth has been sluggish (3.0% in 2009 and 4.3% in 2010), and absolute volume of foreign remittances of migrant workers decreased (up to US\$1.8 billion in 2009).

Looking at food consumption, no sustained positive trends can be observed, as indicated by the data in Table 2.

Table 2. Change in qualitative composition and caloric content of consumed foods, 2000–2009³

	2000	2002	2003	2004	2005	2006	2007	2008	2009
Proteins – grams	45.1	46.9	48.4	47.6	47.9	50.4	46.9	49.1	51.4
Carbohydrates – grams	335.7	349.4	359.8	364.9	366.5	381.4	357.3	371.0	382.5
Caloricity – g /calorie	1918	1976	2026	2072	2107	2219	2058	2175	2246

These data show very interesting trends. In the 2000 to 2008 period, daily consumption of protein per capita increased by 8.9%, carbohydrates – by 10.5%, and calories – by 7.3%. While these figures seem to indicate positive change in consumption, these data indicate very serious problems. First, absolute daily protein consumption lags far behind accepted dietary norms in Tajikistan. Second, the increase in carbohydrate consumption is surpassing that of protein consumption, which is irrational under the current dietary pattern in Tajikistan. According to the World Food Organization (WFP), in 2008, dietary energy consumption of 14% of rural and 21% of urban households in Tajikistan was much lower than the established norms. Third, caloric consumption in the country is very close to the level that can be classified as «consumption of the poor». This threshold level is less than 2,100 calories and it affects the whole country. However, the poor population have a very low consumption rate. This suggests that improving nutrition quality and its caloric value is critical; otherwise, the situation unresolved may

3 Key indicators of the Household Budget Survey. Statistics Bulletin. Dushanbe, 2009, p. 45.

worsen the physical and mental health of the population and could become a serious problem leading to an increase in the poverty rate in the country.

Therefore, there is an urgent need for an increase in consumption of high caloric value products such as meat and processed meat products, milk and dairy products, fish and fish products, as well as dried fruit and some varieties of fresh vegetables. If within the next five years, annual growth of animal products does not reach the range of 10-12%, Tajikistan is unlikely to achieve the target to halve the proportion of population suffering from malnutrition by 2015.

In 2008, the relative and extreme poverty threshold in money terms were 154 TJS and TJS 101, respectively. While calculating the poverty indicators, the per capita consumption within a one-month period, with age, gender and type of settlement and demographic structure of the population were taken into consideration. If the monthly consumption is above 154 TJS, this means that the population is no longer under relative poverty. Prior to 2009, reduction in relative and extreme poverty was 21.4% and 30.5%, respectively. However, the crisis effects on moving the poverty line was not the subject of the survey, so the situation can be expected to get worse. This trend would be reversed only if the GDP growth rate were at 10.8% in the annual measurement and aggregate remittances of migrant workers amounted to US\$3.0-3.5 billion. The first one would be possible as global financial crisis relief, and in particular, from recovered world prices on raw materials, and second is possible through moving of the Russian economy (which employs 95% of labour migrants from Tajikistan) to the recovery phase of the current economic cycle. No less important is the transition to more effectively applying those factors having direct impact on reduction of relative, and in particular, absolute poverty. Due to 20 years of inertia, the country has failed to overcome the effect of the counteracting poverty factors. This would require the following:

- a) restoring proper public perception of effectiveness of economic management, which is very important for market-based economy. After elimination of the planned economy, this issue has not been given adequate attention in society. Many surveys show that small producers, becoming independent managers, lack understanding of the importance of increasing production efficiency, and many of them even lack the skills to calculate cost price, net output and profit. They are in need of economic training, because without economic management knowledge, it is extremely difficult for them to understand the incentives provided by the state and society.
- b) conducting government and public monitoring of aggregate government and private expenditure on governance, the social sector, and religious traditions and customs. There are huge untapped resources here. Targeted government regulation supported by civil society may lead to termination of the current practice of raising prices before religious, governmental, historical and national holidays. The same applies to streamline customs and traditions of people. According to expert estimates, five years ago, the costs of their arrangement and conduction reached US\$0.8–1.0 billion. They acted as a constraint to reducing poverty, especially extreme poverty. The same applies for the large-scale festive events. The costs of conducting such events should be drastically reduced, and savings should be directed to meet the challenges of reducing extreme poverty;
- c) increasing productivity of food crops in the private subsidiary, dekhan farms and the collective sectors of agriculture. These are real opportunities to increase productivity of food crops (cereals, legumes, root vegetables, potatoes, vegetables, cucurbitaceous crops, fruits, grapes) from 50 to 120% only through fullest use of resources, increasing the intensity of labor. The latter implies not only a shift to the methods based on scientific organization of labour and management, and cultivation of food crops, but also the use of skilled workers

and highly qualified specialists to increase the responsibilities of the producers, take measures to raise the prestige of hard-working employees, increase food production volumes, and capitalize cumulative production experience and skills of all farmers;

- d) taking active measures to increase employment in the country aimed primarily at reducing poverty. This means not only increasing employment, but also achieving a high employment rate, which would contribute to the rapid growth of aggregate household income, accelerated growth of employment of members of families in a state of extreme poverty. Special attention should be paid to the “economically inactive population”, many of whom are women.
- e) one of the factors of relative and extreme poverty is corruption. The fight against corruption in Tajikistan should focus on creating more favourable conditions for reducing the number of extremely poor households.

In addition to official data on relative and extreme poverty, there are data obtained from other sources, which indirectly confirm the low level of income and consumption, and hence high poverty rates in the country. This is particularly true when this feedback comes from the population itself on their financial, material and social well-being. According to the IOM country office survey, 56.9% of respondents were not satisfied with the financial status of their households. It is interesting to note that 65.5% of the poor segments of the population expressed their dissatisfaction with their financial situation, against 47.0% of more wealthy respondents. The same survey showed that 32% of poor households were characterized by an inadequate nutrition status compared with 15% of «not poor» households.⁴ Inadequate food consumption intake indicates dissatisfaction with its quality and structure. This means that the poor, in order to avoid malnutrition, have resorted to all kinds of solutions, including preferences for low-quality products due to their low prices.

It should be emphasized that in Tajikistan, as in other countries, poverty is a multifaceted phenomenon, which is shown as follows:

- 1) poverty is widely differentiated by regions, as shown in the following data.

Table 3. The main indicators of poverty, by region (in %)

		GBAO	Khatlon Province	Soghd Province	Dushanbe	RRS
Relative poverty	Total	34.5	50.2	52.5	19.1	44.2
	Urban areas	38.0	50.7	44.7	19.1	26.4
	Rural areas	33.5	50.1	57.0	–	48.0
Absolute (extreme) poverty	Total	6.0	15.8	17.1	2.6	10.8
	Urban areas	5.0	16.7	12.4	2.6	3.2
	Rural areas	6.3	15.5	19.8	–	12.5

Contrary to prevailing public opinion, the highest poverty rate is in Soghd Region (50.3%), reaching 57.0% in its rural areas. The lowest poverty rate is in Dushanbe. The same is true of the extreme poverty. In Sughd, it was 2.9 times higher than in GBAO, 8.0% higher than in Khatlon Region, and 1.5 times higher than in RRS. The regions of

4 Republic of Tajikistan. Poverty Assessment. 3 December 2009. Report No. 51341-TJ. WB,2010, p.32

Tajikistan are differentiated considerably by their relative and extreme poverty rates, which should be radically changed.

- 2) Poverty most severely affects the lives of children and their environment. Statistics show a poverty gap of 5.6% between those over 15 years of age and those of 0–15 years of age. With regard to extreme poverty, this gap is less wide, at 4.3%. Throughout the country, child poverty is 50.7%, with higher rates in rural areas than in urban areas. Extreme poverty has an opposite trend. Countrywide, extreme poverty among children is 16.3%; 21.2% in urban areas and 18.6% in rural areas. In terms of relative poverty, the situation in Tajikistan is similar to other countries; after the divorce of the parents, children usually stay with their mothers, who have a lower income than the fathers. In addition, the bulk of children live in large families, whose aggregate income is lower than in small families. As concerns extreme child poverty, the opposite situation can be explained by the fact that in cities, there are higher divorce rates and more single mothers.
- 3) In rural areas, poverty is higher than in urban areas. This poverty index gap is currently at an average of 5.6%. The reasons for this are increasing agrarian overpopulation and labour surplus in the countryside, spreading the «Dutch disease», in high numbers of children in rural families, the relatively low professional qualifications of the rural population. Regarding the spread of «Dutch disease» in Tajikistan, it is of an entirely rural origin and is associated with the huge cash flow from the external labor migrants. It is estimated that 73% of the total Tajik migrant workers are from rural areas. Since in most rural families, the adolescents, women and elderly people are the major labour force in their individual farms and subsidiary plots, rural households get increasingly used to this situation that for them it is better to buy fruit and vegetables in the markets, if they have money. Such a psychological attitude is not a single case, but has turned into a general phenomenon for rural households. As a result a marketability rate of farmland plots is reduced.

It should be noted that comparing Tajikistan with neighbouring Central Asian countries, it has a lower poverty gap between urban and rural areas. For example, the poverty rate in urban areas of Kyrgyzstan is 30% compared to 51% in rural areas.⁵ It can be explained by many reasons, but the main factor is the much fewer remittances of Kyrgyz rural labour migrants compared with their peers from Tajikistan.

- 4) As a result of a large polarization of income in Tajikistan than in countries with lower poverty rates, most of the population are unable to generate their own capital and enter into subordinate relationships, forced to work under any conditions to provide their families with a minimum income.
- 5) In Tajikistan, poverty is increasingly becoming feminized. This is primarily due to the increased scope of labour migration involving 90% of the male population. Moreover, the bulk of the actual unemployed are women. Women have lower education and qualifications than men, and hence are paid less. Households headed by single women and women with many children are more vulnerable and exposed to a higher risk of poverty.

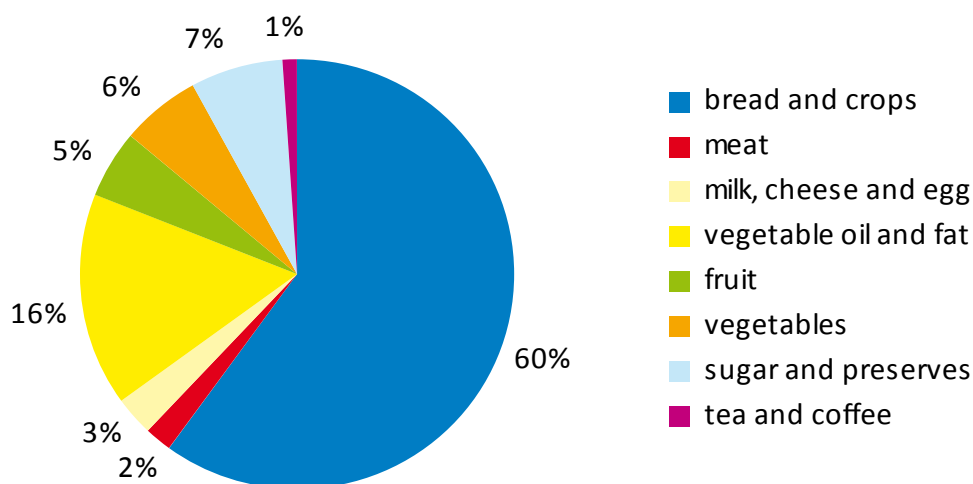
The following are some specific factors that most strongly correlate to poverty: a) the high number of children in Tajik families, especially in rural areas; b) high employment rates in agriculture, where labour income of the population is very low; c) low levels of education; and d) adverse geographical conditions, including the high mountainous terrain of the country.

5 Statistics Agency under the President of the Republic of Tajikistan: Living Standard Survey, 2009. Poverty Assessment. December 2009. Report No. 51341-TJ. WB, 2010, p.p.

Target 2. Halve the proportion of people suffering from malnutrition.

The first target, i.e. halve extreme poverty, is organically linked with the second target: halve the proportion of people suffering from malnutrition. Resolving this problem in Tajikistan is vital, since nutrition in the country lacks the right balance of proteins, fats and carbohydrates. Typical rations include bread, bringing into the body «cheap calories». Meat and dairy and fish products are insufficient in the diet of the child population, as seen in the Figure 2.

Figure 2. Structure of meals of poor children (in calories)



These data show that in Tajikistan, despite having the highly favourable conditions for the production of fruits and vegetables, the share of these food products in children's nutrition is inadequate, and except the harvest season, children from poor families, who constitute the vast majority of the population, have no access to these affordable but important products for physical development and growth. Studies show that within a year, the shortage of food products for adults and children varies enormously.

According to the National Centre for Health Statistics (NCHS) and the World Health Organization (WHO), a high percentage of Tajik children are underweight (under-five children). NCHS reports 17.6% underweight prevalence compared to WHO's estimate of 15.0%. The both surveys also show that 6.0% of children in this category have high rates of underweight and stunting (WHO data). NCHS gives a slightly lower figure, at 5.3%. These data indicate the Government of Tajikistan should work closer with donors in this area. The data on food item consumption can additionally justify this statement.

Table 4. Consumption of the main foods (average per capita in a year, kg)⁶

	2000	2002	2003	2004	2005	2006	2007	2008	2009
Potato	37.8	28.3	32.3	35.3	32.2	33.2	33.0	36.7	35.6
Vegetables and watermelons	98.5	82.1	68.9	76.7	79.4	75.4	75.1	75.4	84.7
Fruit and berries	50.8	36.7	15.1	45.0	38.8	48.4	45.9	48.9	40.1

⁶ Key indicators of household budget survey. Statistics Bulletin. Dushanbe, 2009, p. 38

	2000	2002	2003	2004	2005	2006	2007	2008	2009
Milk and dairy products	64.9	51.2	34.9	48.2	48.2	58.8	49.1	54.7	61.0
Meat and meat products	4.4	6.5	9.6	7.3	8.3	10.2	9.9	11.4	11.1
Vegetable oil	10.2	10.4	12.2	11.4	12.4	13.1	11.7	13.2	14.2
Egg (pcs.)	19	24	29	24	24	24	24	32	39
Sugar including pastry	6.7	8.4	11.3	10.0	11.0	12.1	11.4	12.6	12.4

These data show that, except for vegetables and cucurbitaceous crops, and bread products, the actual consumption of all other products lags behind the nutritional norms by many times. Other products relates to meat and meat products, milk and dairy products, eggs and fish. Consumption of grain products, compared to in the 1990s, has reduced by 7–10%, although it is consistent with the nutritional norm. Even the consumption of potato, for which Tajikistan has optimal bioclimatic conditions, is lower than the established nutritional norm. It should be noted that Tajikistan has not yet solved the problem of adequate iodized salt supply and, according to the World Banks surveys, only 46% of households consume iodized salt.

This situation with respect to the consumption of basic foodstuffs by the most wealthy and least wealthy groups of the population is getting worse, as shown by the following data.

Table 5. The average per capita consumption for decile groups (in one month, kg).

	2005		2006		2007		2008		2009	
	10% of the least secure people	10% of the most secure people	10% of the least secure people	10% of the most secure people	10% of the least secure people	10% of the most secure people	10% of the least secure people	10% of the most secure people	10% of the least secure people	10% of the most secure people
Bread products	11.37	14.96	10.57	15.50	9.93	15.61	10.00	15.26	12.91	16.62
Potato	1.94	3.42	1.91	2.96	1.58	3.13	1.97	3.75	2.42	3.66
Vegetables and watermelons	4.26	10.22	4.86	9.84	4.01	8.77	4.83	10.25	5.52	10.97
Fruit and berries	0.53	1.27	0.50	1.44	0.87	2.04	0.85	2.59	0.72	2.28
Milk and dairy products	2.74	6.62	2.39	7.61	3.01	7.97	4.22	8.36	3.61	7.94
Egg (pcs.)	2	7	2	3	1	4	2	5	2	6
Fish and fish products	-	0.01	-	0.02	-	0.03	-	0.06		
Meat and meat products	0.30	1.30	0.34	1.31	0.37	1.54	0.38	1.66	0.56	1.62
Sugar including pastry	0.63	1.08	0.59	1.18	0.61	1.18	0.72	1.37	1.76	1.58
Vegetable oil and oils	0.69	1.24	0.76	1.32	0.70	1.25	0.81	1.41	1.02	1.64

For the 2005–2008 period, the consumption ratio among 10% of the poorest and most wealthy populations changed as follows: for bread products – from 1.31 to 1.53; potato – from 1.76 to 1.90; for vegetables and cucurbitaceous crops – from 2.40 to 2.12; for fruits and berries – from 2.39 to 3.05, for meat and meat products - from 4.33 to 4.37, for milk and milk products – from 2.42 to 1.98; for eggs – from 2.00 to 2.50; for sugar, including confectionery products – from 1.71 to 1.90; for vegetable oil and fats – from 1.80 to 1.74. Hence, out of the ten above basic food products, only three food items have converged consumption rates of the richest and poorest populations. They are “fruits and melons”, “milk and dairy products”, and “vegetable oils and fats”. However, even for these food products there are significant varieties: for one food item, there is the absolute decrease in consumption by the poorest population (grain products), for some other food items, there is no improvement at all (eggs, fish and fish products).

This situation of increasing undernourishment needs to be urgently solved, because its persistence can contribute to existing risks and threats. To overcome them, it is necessary, above all, to take measures to accelerate the growth of aggregate income of the population. Moreover, incomes, having internal sources of growth, should be the primary focus. Incomes can increase only through the rapid development of the real sector of the economy. Rehabilitated industry, agriculture, construction, logistics, transportation following a market-based approach and assuming a reasonable state regulation of the economy can increase employment, which must be accompanied by a rapid increase in wages, sufficient for a decent livelihood of households and essential to income growth to overcome the effects of malnutrition in all regions and all social strata, especially among children. The country has sufficient resources, which can be mobilized through the development of various segments of the real sector of the national economy at the lowest cost. Incomes of the population can grow by, inter alia, increasing production capacities in industry, and improving production efficiency, including labour productivity, and through sustained growth in crop yields, strengthening anti-corruption measures and accelerating the innovation development of the economy.

Income can grow, in particular, by increasing foreign remittances of migrant workers. But on foodstuffs consumption, these transfers can have a positive effect only when the food will not grow faster in prices. A rapid increase in crop yields and a complete saturation of the domestic market with agricultural produce are required as well as enhancing the State’s role in curbing the trend of unjustified price increases for food items, overcoming the influence of monopolies and oligopolies tending to raise prices. Rises in prices can be curbed if multiple intermediaries between the «field of production” and diverse markets are removed. Overcoming widespread malnutrition needs regular review of the minimum wage, pensions and benefits of the most vulnerable groups. While this phenomenon persists, humanitarian assistance is still needed. And yet, this creates a spirit of dependence, and thus has a negative impact on stimulating the development of local food production.

Findings and recommendations:

- Economic growth volatility is a serious obstacle to overcoming poverty. It consists not only of fluctuated economic growth rates, but it is low social return effect. In Tajikistan, economic growth rates have become the determinants in reducing poverty but have not fully exhausted their capacity. Their further acceleration (up to 11-13% per year) accompanied by an enabling environment for attracting foreign direct investments can ensure an increase in these investments, contributing towards poverty reduction.

- Favourable conditions must be created to convert external labour migration into a resource for poverty reduction. To achieve this, the regulatory role of government should be improved to enhance the effectiveness of migratory process. This role would ensure the qualification of potential migrant workers, teaching them Russian and teaching the basics of labour and migration legislation of the countries – the recipients of foreign labour; more rapid legalization of labour migrants; combating illegal exploitation and theft of their income by employers and law enforcement structures.
- A very serious barrier to poverty reduction is widespread corruption. Poor people are truly enmeshed in visible and invisible threads of corruption and almost have no protection or state support to face this phenomenon. A system of legislative measures to protect them from this threat needs to be legally developed, approved and established.
- In determining the strategy and tactics of poverty reduction, both monetary and social aspects of poverty should be focused on; they are often inextricably linked. Consequently, increase in tariffs for services such as water and electricity supply limits access of the poor to these services, which play an important role in raising living standards; indeed, equal access to them is one of the fundamental human rights. In Tajikistan, the cost of water supply and electricity production is relatively low and they are considered a competitive advantage of the country. The policy decreasing the tariff for water (including for irrigation) and electricity will be a contributing factor in overcoming the extreme poverty and contributing to the decline of poverty and malnutrition prevalence in rural areas. Low prices of water and energy will act as powerful incentives to involve the poor and poorest groups seeking different options of self-employment and entrepreneurship, including small business.



GOAL 2:

Achieve universal
primary education

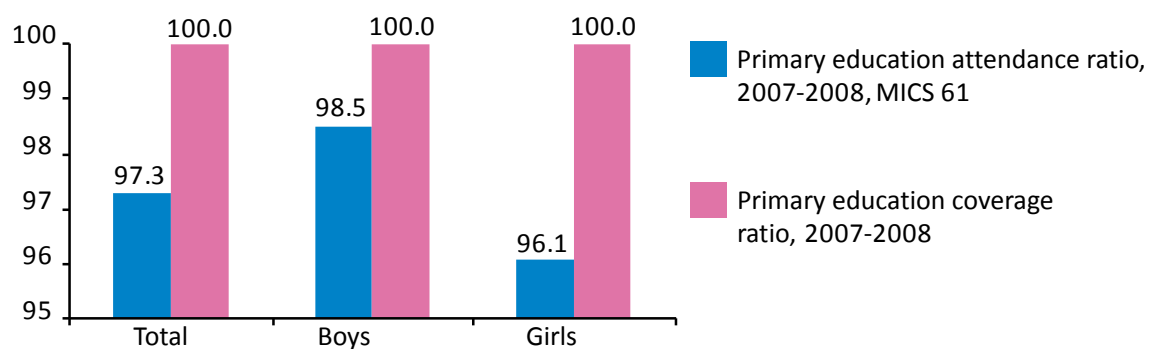


Indicators:

- *Net enrolment ratio in primary education*
- *Proportion of pupils starting grade 1 who reach last grade of primary*
- *Literacy rate of 15-24 year-olds, women and men*

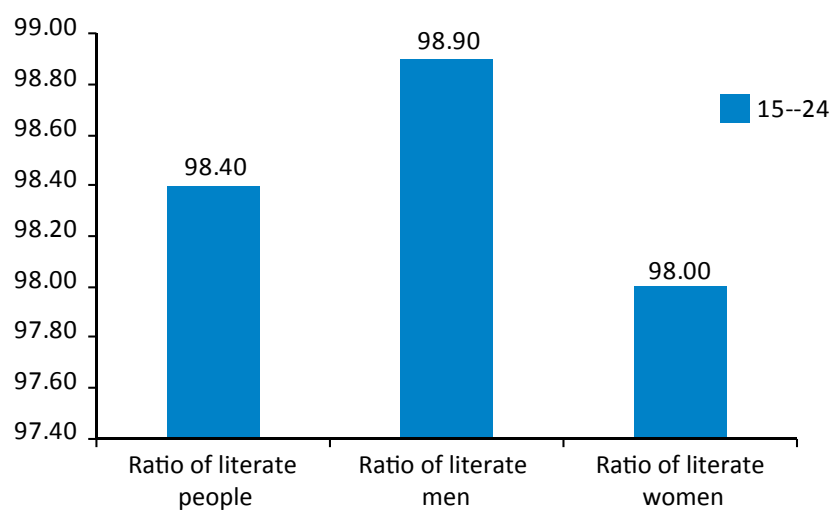
Target 1. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Figure 3 . Primary education attendance and coverage ratio 2007-2008



Numbers in accordance with occurred changes. Literacy of the population at the age of 15-24, TLSS - 2007

Figure 4 . Literacy of population at the age 15-24, TLSS - 2007



Condition of education system in Tajikistan

The achievements of the above target by 2015 seem to be doubtless, provided there will be appropriate measures taken towards this direction. On the coverage ratio the set target is already achieved, however on the primary school attendance ratio minor delays are observed. The literacy ratio among population at the age 15-24 reaches about 99% for the men and about 1% less for women. Overall there is no monitoring on the 2nd indicator, since the data on this indicator are missing in all courses of information (State Statistical Agency on education, EMIS, NCS, TLSS – 2007, MICS etc). Though the monitoring of this indicator seems to be possible in the framework NCS (even for the previous years), which ultimately will let understand what ratio of primary education enrollment with each age groups achieves the last level of this educational stage. Collection of data on this indicator is considered important since it will let track the tendency.

Quality and status of the education system heavily depends on the financial capacity and the prioritization of the sector by the Government. The state budget expenditure over the last nine years for education in absolute terms has increased 26 times (from TJS 42 million in 2000 to TJS 1.070 billion in 2009). In 2009, from all sources of financing, the construction and reconstruction of 218 schools were completed, with 40,000 new teaching places commissions for students.⁷

The financial crisis has inevitably affected the education system; in 2009, the education budget was reduced by TJS31 million TJS. The decrease is mainly accounted for by the universities.⁸

According to the NCS, in the 2008/2009 school year, the total number of all types of schools (primary, basic secondary, gymnasiums and lyceums) in Tajikistan was 3,817, in which around 1.7 million pupils were enrolled. More than 92% of school-age children are enrolled in general, primary and secondary vocational education. The graduation ratio (the ratio of successfully completed school under the curriculum for the appropriate age on completing the curriculum) is also sharply reduced by levels; in primary school, it is close to 100%, in basic school already at 83%, and in complete secondary education, it falls to 48%.⁹

Dropout ratio by level of education, sex and regions of Tajikistan clearly shows the level of education where the number of students is most reduced. In primary education in the regional context, a school drop-out ratio was only observed in Dushanbe (which was 1%) and of girls. A high drop-out ratio in basic education was in RRS (overall 4%, but 8% for girls). With respect to complete secondary education, the drop-out ratio varies from region to region, with the highest in the GBAO and Soghd regions (13 and 12%, respectively). The high drop-out ratio from this level of education in these two relatively problem-free regions compared with Khatlon and RRS can be explained by a lower drop-out in basic education. It should be noted that these phenomena are more frequently observed in rural than in urban areas.¹⁰

In rural areas, irregular power supply is one of the causes of lower educational level of rural residents, since electricity cuts limit access to computers, Internet and other modern education and information technologies. Low salaries in the education sector are a major cause of the shortage of teachers in secondary schools, which affects the quality of education. Ensuring national energy security will significantly improve the situation in education sector.

7 E. Rakhmon. Tajikistan President's annual address to Parliament, a Joint Meeting of the Upper (Majlisi Milli) and lower (Majilisi of Namoyandagon) Chambers of the Fourth Convocation. 24 April 2010.

8 Data of the Ministry of Education of Tajikistan.

9 Mark Agranovich. Analysis of the results of National School Census and data of the Educational Management Information System, draft version of the report, March 2010.

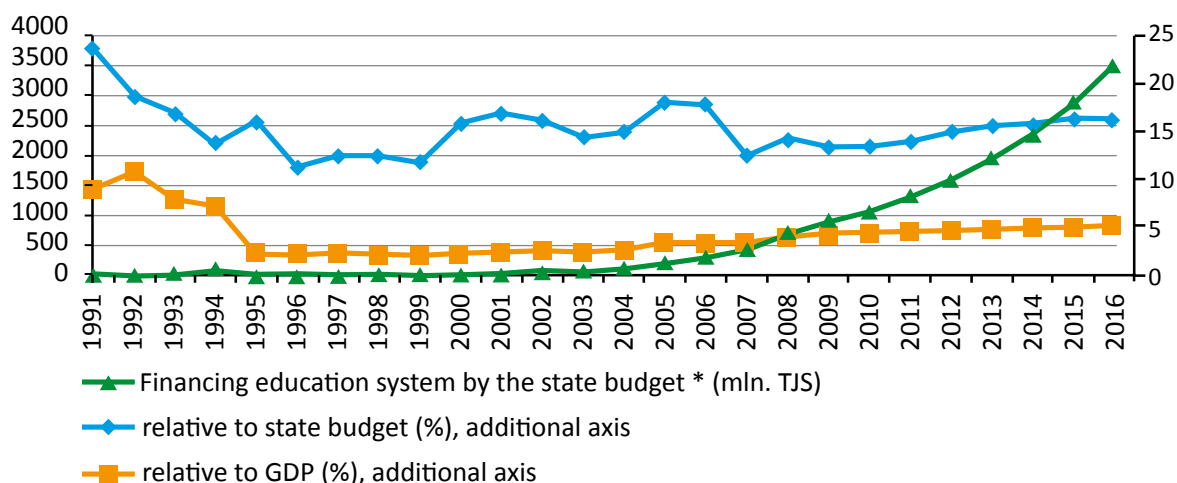
10 NSC – 2008/2009.

In Tajikistan, mountains occupy 93% of its territory. Some people live in remote mountainous areas in small towns and settlements with limited transport communications, particularly in winter. This barrier prevents children in these areas from access to general secondary, vocational and tertiary education, with all its consequences.¹¹

In 1991 public expenditure on education made up 8.9% of GDP, or 23.6% of total public expenditure, whereas in 2008, these figures were 4.1% and 14%, respectively (Table 1).

Increasing the share of allocated funds for education even to the 1991 level will not come close to meeting the educational sector needs, much less the 6-7% of GDP, as stated in PRS-3.¹² The share of budget on education of percent of GDP is the indicator that cannot realistically reflect the needs of this sector. Some of the arguments and comparisons will help to understand this. Switzerland in recent years has spent 5.4% of GDP on education. In 2005, the educational budget amounted to US\$367.0 billion and the GDP per capita was US\$49,351. In the same year, the GDP in Tajikistan was US\$2.3 billion and the GDP per capita was US\$335, i.e. 156.5 and 139.0 times less than in Switzerland, respectively.¹³

Figure 5. Financing of education system of the Republic of Tajikistan, 1991–2016¹⁴



*In the 1991 to 1994 period (TJS mln.)

According to our estimate, in order to radically change the situation in school education in Tajikistan, about US\$1.8 billion is required in 2010 (or \$1,000 per student, including decent salaries of teachers, school meals, etc.), which is seven times higher than the national budget allocations in 2009. The budget allocations should be increased proportionately to the increasing number of school-age children and given the annual inflation rate. The total number of students enrolled in secondary schools of Tajikistan is currently 1,769,000,¹⁵ and according to estimates, by the 2016-2017 school year, when the country fully moves to 12-year education, their number will increase by 20%. Tajikistan will need additional schools, classrooms, teachers and additional investments into the sector. As can be seen from Table 1, by 2016 it is planned to increase spending for education by 3 times in absolute value compared with 2010, which is an impressive figure.

11 Employment in the context of human development. Tajikistan – National Human Development Report. 2008–2009.

12 PRS-3 for the 2010–2012 period, p.43

13 Umarov H.U. Tajikistan: the modern state of the interaction of economy, education and science. Dushanbe, 2008. Estimates are made based on the data: Human Development Report 2007/2008. Fighting climate change: Human solidarity in a divided world. New York, 2007, p.p. 243,245,277.

14 Ministry of Education of Tajikistan.

15 Statistics Agency, Education in Tajikistan, 2009.

Education grade levels in Tajikistan

In Tajikistan, enrollment rates in primary and secondary education are the lowest in the Central Asian region, and still lower than the same indicator prior to independence. There are also problems with schooling quality, which will get worse rather than better due to the lack of teachers, their low skills, outdated textbooks and poorly developed school infrastructure. Schools commonly operate in three shifts.¹⁶

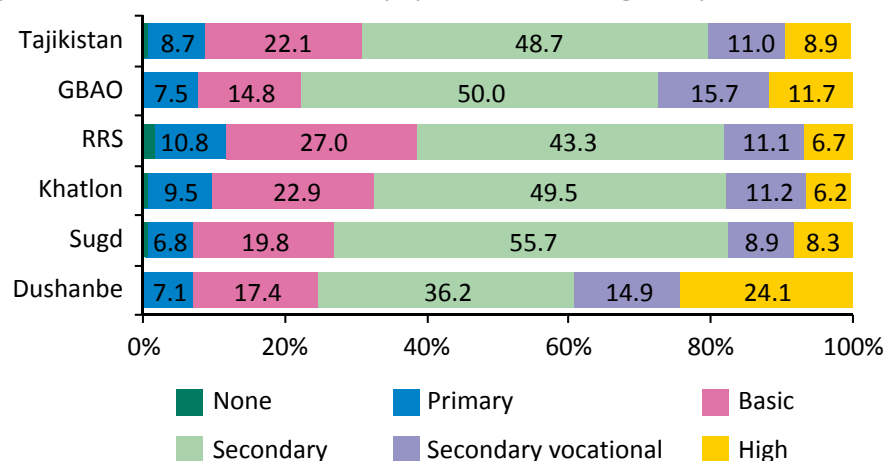
The education system of Tajikistan is represented by the following levels:¹⁷

- pre-school education;
- primary education (grades 1-4, ages from 7 to 11 years old);
- compulsory basic education (grades 5-9, ages from 11 to 16 years);
- general secondary education (grades 10–11, age 17–18 years);
- vocational education consisting of primary, secondary and higher vocational education, post-graduate and supplementary education.

According to the Tajikistan Living Standards Survey (TLSS)-2007, more than 6% of children of 12-16 years of age had gone to preschools when at the preschool age, but in 2006, enrollment in preschool education was 7.6% for children of 3-5 years of age. The enrollment in preschool education in urban and rural areas of Tajikistan was 17% and 2.4%, respectively at that time. Regionally, these institutions are the least available in Khatlon, RRS and GBAO; in Sughd only 10% of children of this age group had access to pre-school institutions compared with 22% in Dushanbe city. Children of 3-5 years of age did not go to preschool institutions due to the lack of schools, which was reported by over 52% respondents, followed by the feeling that there was no need to do so, reported by 27% of respondents.

In general the educational level of the population of Tajikistan at the age 15 in the regional profile is observed as follows:

Figure 6. Level of education of the population in the regional profile, TLSS - 2007



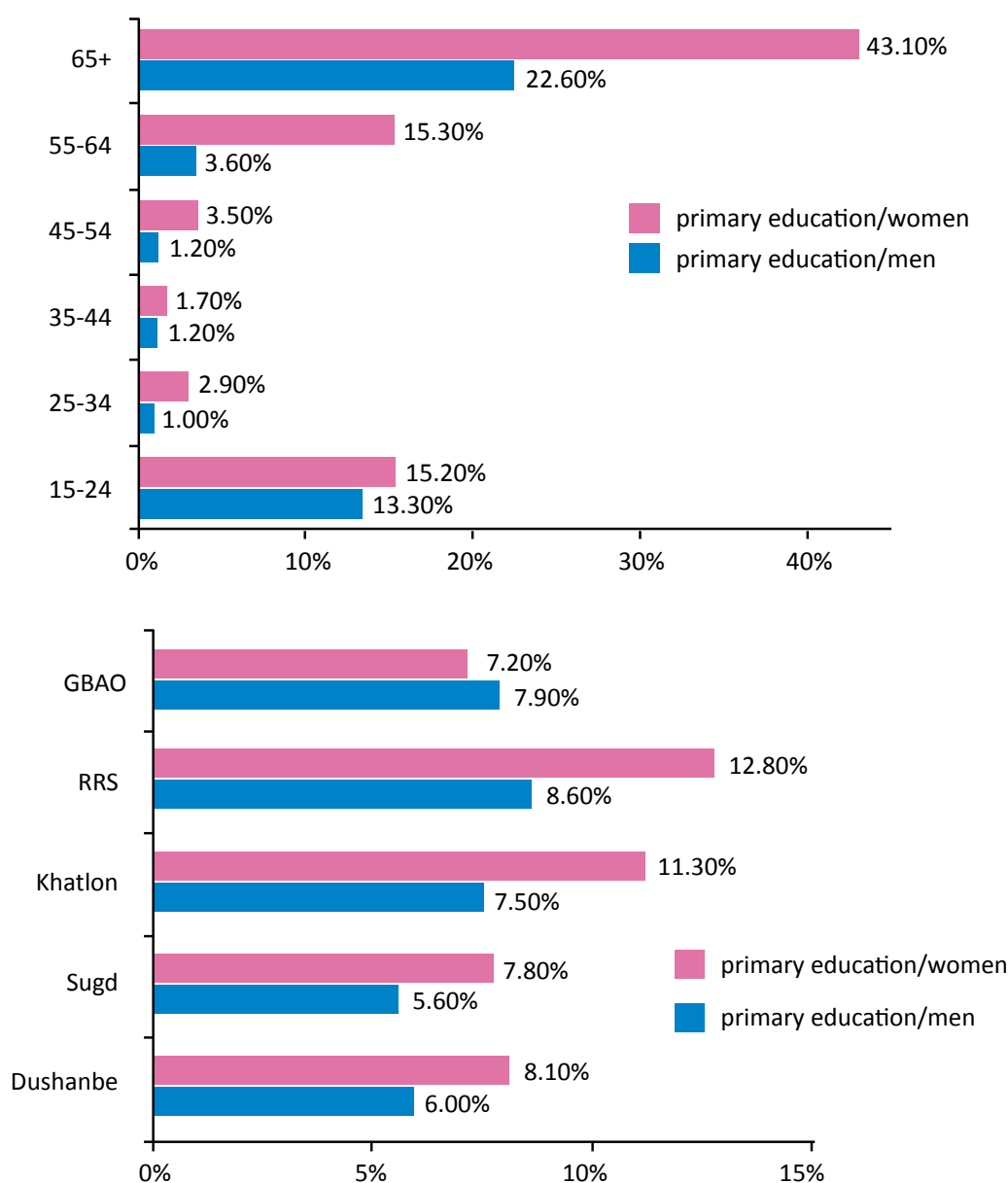
The proportion of people of 15 years and older with only primary education is the highest of all categories. Such data may be obtained only through surveys with their wide coverage of

¹⁶ Vladimir Mikhalev., UNDP Support to Achievement of the MDGs in Tajikistan: Review of Progress and Future Directions.

¹⁷ The Tajik Law On Education, of 17 May 2004.

the population throughout the country. According to TLSS-2007, the number of women with primary school in all age groups was larger than men, indicating that girls more frequently dropped out of school after primary education, compared with boys. Referring to the Figure 7, it can be affirmed that there is a negative trend, i.e. in the age group 15-24 years (born between 1982 and 1992), both men and women with primary education are more concentrated compared to other age groups. From a regional perspective, the most people with primary education are in the regions of Khatlon and RRS. The Gender Parity Index is also high. A benchmark for reducing the number of people with primary education should be age groups 25–34 and 35–44, where the proportion of these population categories is minimal, and the Gender Parity Index is not high enough (see Figure 7).

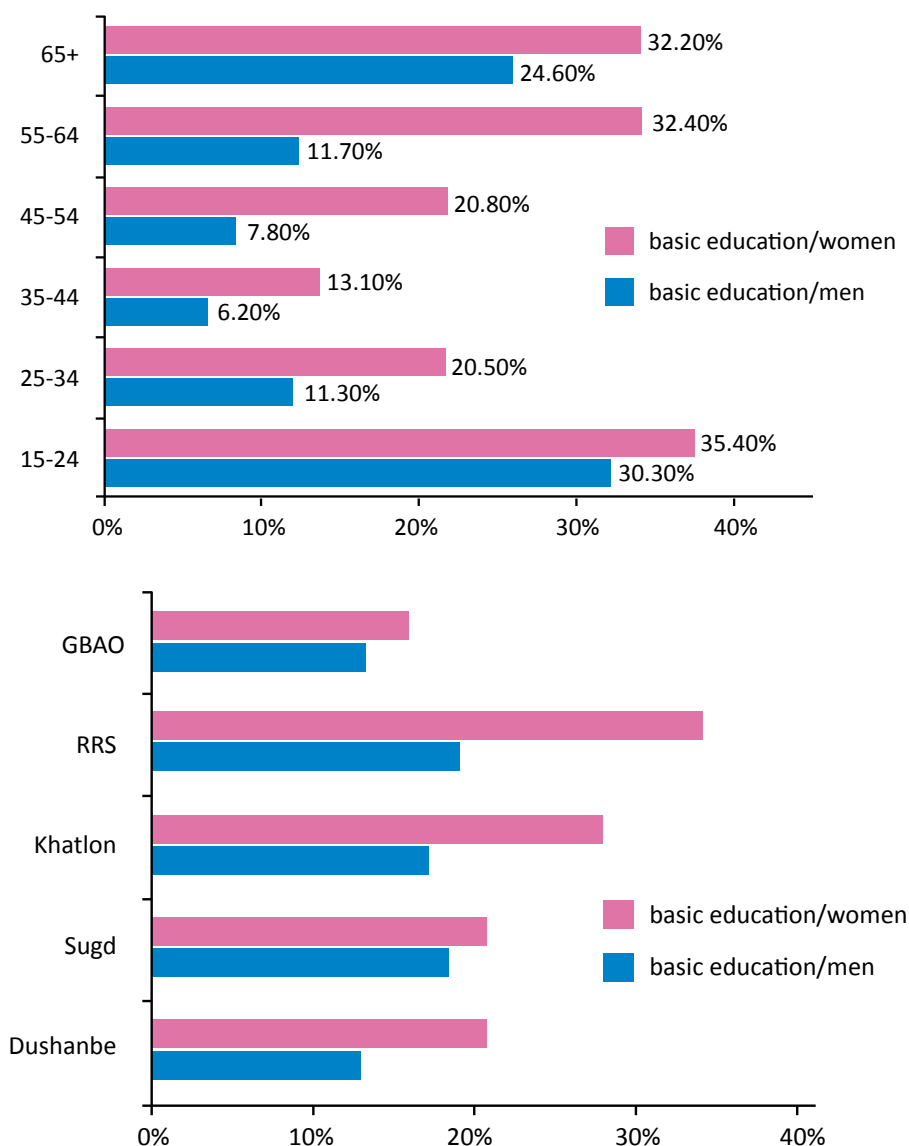
Figure 7. Population with primary education of 15 years of age and over, by sex, age and regions, according to TLSS 2007



Target 2. Achieve universal basic education (1-9 grades) and eliminate the gender gap in secondary education (1-11 grades).

The increase in share of population with basic education (and primary education) in the 15–24 age group compared with other age groups of population (even compared to the 65 + age group, i.e. those who graduated from school in the 1950s and the 1960's) confirm a continuous downturn trend. The lowest proportion of population with basic education is in the 35-44 age group (6.2% and 13.1% for men and women, respectively), who received basic education between 1979 and 1989. Moreover, those who dropped out in that period, after completion of basic education, continued their studies in vocational schools and colleges in the country. A comparison of the 15–24 age group shows that the proportion of the population with basic education is 5 and 2.5 times higher for men and women, respectively, than in the first age group. This negative trend deserves special attention (see Figure 8).

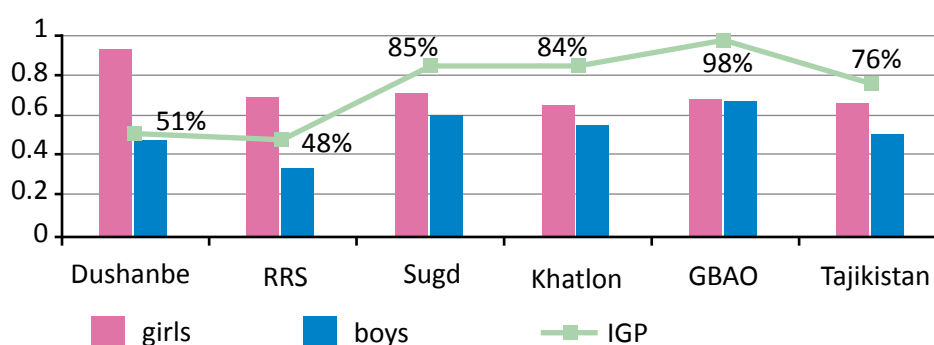
Figure 8. Population with basic education (1-9 years of age) at the age of 15 and older, by sex, age and region



Source: TLSS 2007.

Enrollment of population of up to 16 years old in complete secondary education, including Primary vocational education (PVE), shows that only 66% and 50% of boys and girls, respectively, continue their studies. A high percentage of graduates from complete secondary schools have the opportunity to continue their studies in universities of the country. The highest percentage of boys in this educational level is in Dushanbe (94%), and the highest percentage of girls is in GBAO (67%). The lowest indicator of Gender Parity Index is in RRS and Dushanbe city (48% and 51%, respectively), and the highest Gender Parity Index is in GBAO (98%). This trend is of serious concern, since the majority of girls, who did not complete general secondary school, have no chance to access and obtain a higher education (Figure 9).

Figure 9. Population covered by education at the age of 16, by sex, age, region and the Gender Parity Index, including primary professional education¹⁸



When interpreting the data on population in terms of general secondary and higher education for people 15 years and older, by sex, age and regional section, the following aspects should be given the higher attention.

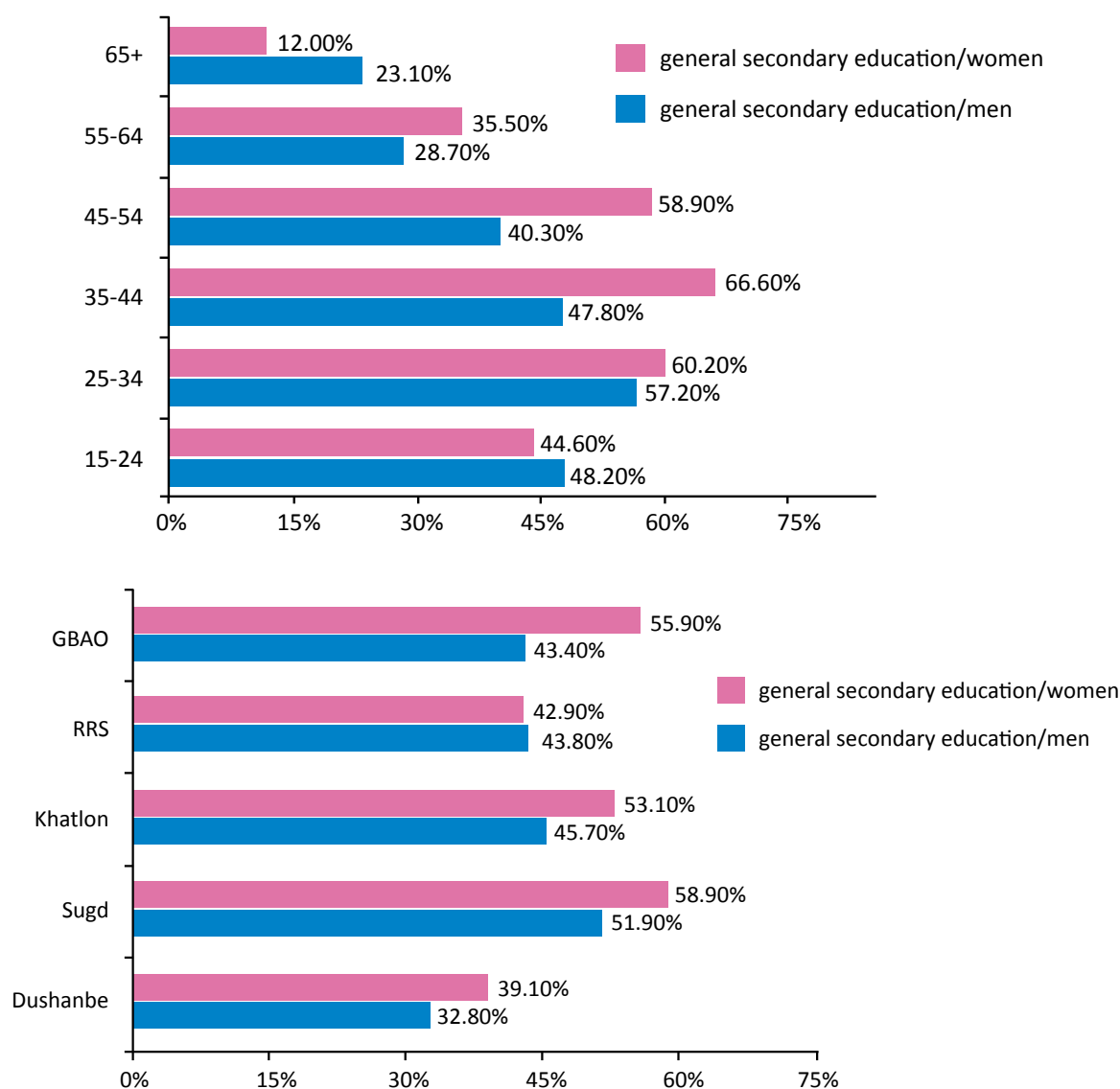
First, it is necessary to be cautious in analysing the data when there is a small share of this population, i.e. attention should also be paid to the population with similar characteristics in other levels of education;

Second, when comparing the data across age groups, one should bear in mind that, in general, people complete general secondary education at the age of 17–18 and higher education at age 22–23.

Dushanbe has a smaller percent of population with a general secondary education in comparison with other areas, which can be explained by its larger concentration in higher education levels; more details are provided below on population with tertiary education. The less number of population of 15–24 years age group leads to reduced chances for a tertiary education (Figure 10).

¹⁸ Education Management Information System (EMIS), Statistics Agency of Tajikistan, 2009.

Figure 10. Population with only general secondary education (1-11 years of age) at the age of 15 and older, by sex, age and region



Source: TLSS 2007.

Comparing the number of graduates from basic secondary school and their admission to primary and secondary vocational education shows that about 13% of boys and 20% of girls are lost in this educational chain each year.¹⁹

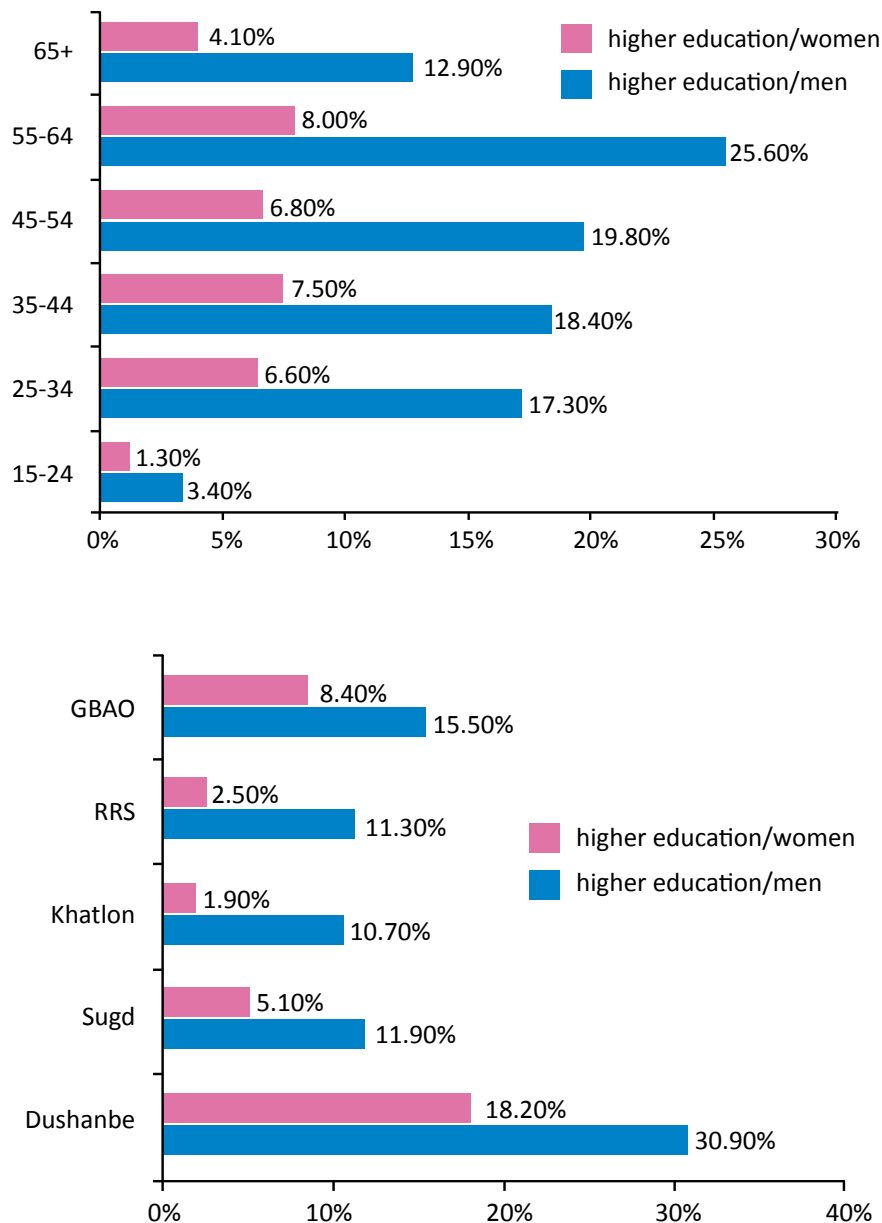
According to TLSS-2007, almost 9% of the population of 15 years of age and older had a higher education, with a substantial (more than 2.5 times) prevalence in the cities. Regional differentiations are also significant, for example, in Khatlon and RRS, where this figure is below the national average. The percentage of women in these age groups is 12% higher than for men, whereas the percentage of women with tertiary education is 3 times lower than for men. There are almost 5 times more men than women with a higher education in Khatlon and RRS, and 2 times more men than women in GBAO and Sughd²⁰

¹⁹ Social Exclusion Survey. United Nations Development Programme «On the other side of transition: from alienation to a comprehensive human development of the CIS, 2009.

²⁰ TLSS-2007.

The undeniable fact is that, from year to year, there is an increase in absolute number of the population with a higher education. However, the share of the population of 15 years of age and older shows that in older age groups, the proportion of the population, both men and women, with tertiary education is higher than in the 25–34 year age group.

Figure 11. Population with only higher education (1-11 years old) at the age of 15 and older, by sex, age and region



Source: TLSS 2007

The indisputable fact, proven by many studies, is that parents with higher levels of education pay more attention to the education of their children, show no gender bias towards them, and are less susceptible to public opinion, and vice versa. The percentage of population with higher education in the younger age groups is lower than in older age groups, which gives an indication of the current risk for future education enrollment and school attendance.

Today, the Government gives high priority to the education of girls and raising their enrollment in higher education, particularly from remote areas of the country. The unpopularity of a higher education among the population is linked to the low salaries of the people with higher education and it is obstacle to develop the higher education. Poverty in Tajikistan is not always equated with unemployment or underemployment, but predominantly associated with inadequate remuneration of labour.

Target 3. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education not later than 2015.

The Gender Parity Index in the education system

Women lag behind men in all levels of education, due to the present gender-based prejudice in society. Significant disparities between women and men are observed after the completion of basic secondary education.

There are more girls than boys in primary, basic and secondary education in the region of GBAO only; in other regions, including the capital, boys predominate at these levels of education. There are more men with secondary vocational (technical) and tertiary education than women across all regions of the country. The lack of data at district and city levels does not allow for closer examination of the situation. In the Rasht area of RRS, there is a higher number of girls not attending school than the average in this region.

The Gender Parity Index most clearly illustrates the gender gap between the sexes. The largest gender gap in primary education is in Dushanbe and Khatlon region, and the smallest in GBAO. In basic education, the Gender Parity Index is low in Dushanbe and RRS (Figures 12 and 13).

Figure 12. Index of gender parity and percentage of children who attended primary school (1-4 grades), MICS

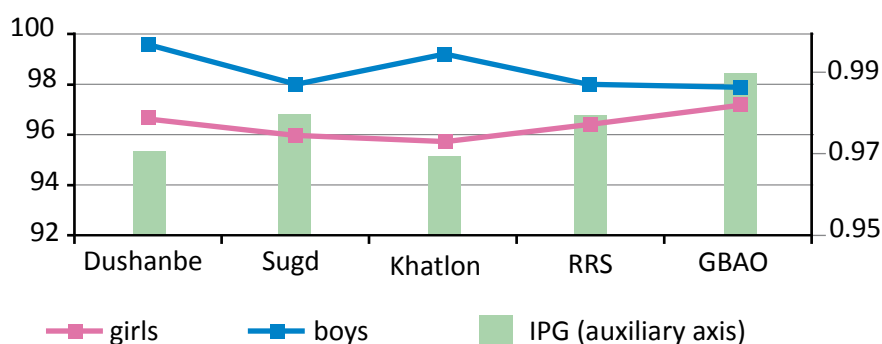
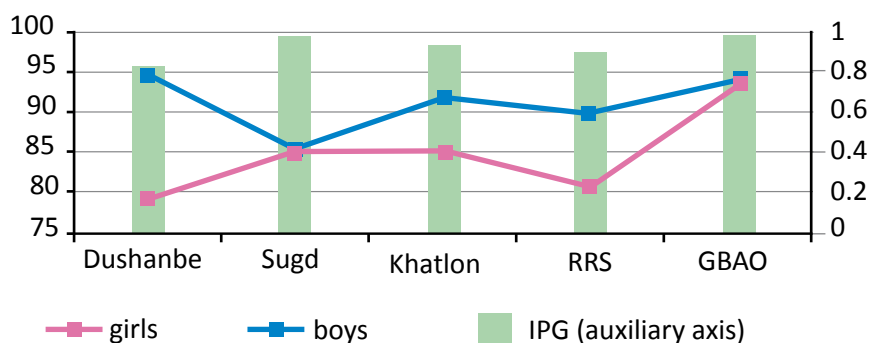


Figure 13. Index of gender parity and percent of children who attended basic school (5-9 grades), MICS



Source: MICS 2005

Gender analysis of the interventions identified in the PRS for 2007–2009 in the Education section²¹ has revealed that economic and welfare status of households predetermines their attitude to education to a limited extent only. This conclusion is illustrated by studies showing that school attendance heavily depends on household income for boys only and not for girls. In other words, the proposed measures in PRSP will have a stronger motivational impact on school attendance of boys rather than girls.²² This means, in our view, that the proposed measures are not fully gender-sensitive.

Another aspect of the same problem is associated with the fact that it is the poor households for which economic measures will be most effective. Therefore, for this category of households, such measures will provide sufficient incentives for continuing education, but only as long as there is a stimulus. As regards richer households, their strategies of investing in the education of children are not so sensitive to purely economic incentives and are shaped by a complex set of economic and non-economic factors. However, it is important to state that the education strategies of well-off households are the same as of poor families. This can be confirmed by the situation in Dushanbe which is lagging behind in girls' attendance of secondary school.²³

However, financial incentives alone to continue education are likely less attractive for wealthier households than for the poor ones, and the current version of the PRS practically does not suggest other effective ways to engage girls in education (except for quotas, also addressed to the poorest families). This strategy has a potential risk associated with the fact that the education strategies of households are closely linked to factors such as the mother's level of education. If providing a system of economic incentives to continue education, which is fairly effective only for the poorest households and only with respect to the education of boys, another generation of girls with a lower level of education may occur. And these girls, becoming mothers, will in their turn influence the choice of the level of education of their daughters, which risks leading to a vicious circle where lower education of mothers will be the primary determinant of an equally low level of education of their daughters. In order to break this vicious circle, the programmes to enhance education must include not only measures addressed to the poorest households, but also interventions reaching other categories of households. In addition, economic measures must be supplemented with non-economic incentives to raise the prestige of education for girls.

²¹ E. Mezentseva, Gender equality in education, UNIFEM/CIDA, 2007

²² More specifically, it will affect the shaping of household strategies with respect to the education of boys.

²³ There are other data supporting the conclusion about gender-asymmetric households strategies in terms of children's education.

School attendance and provision of hot meals to schoolchildren

The attendance rate better reflects the accessibility of the school than does the enrollment rate. The 2007 TLSS indicates a primary school attendance rate of 97.3% against 76.1% in basic school (grades 5–9).

On the other hand, a survey of social exclusion (SSE) 2009 identified a number of reasons for low school attendance.²⁴ Among the respondents who at the time of the survey were in school or their children attended school, 52.8% reported the low quality of education as a serious problem and 52.3% mentioned poor facilities and conditions in school and 32.7% mentioned poor discipline during classes.

According to MICS 61, school attendance of children according to region and age group is shown in Figures 14 and 15.

Figure 14. Percentage of children who attended school during the last academic year and were absent from classes no more than 4 weeks, by regions MICS

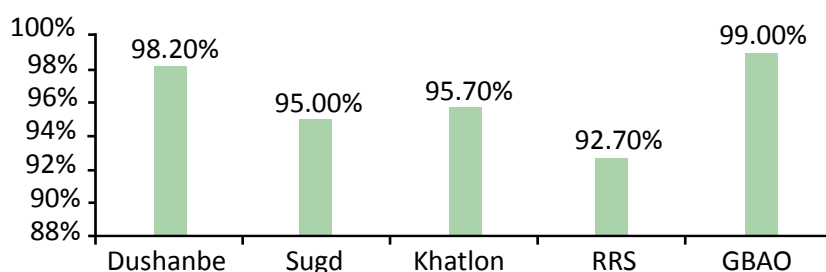
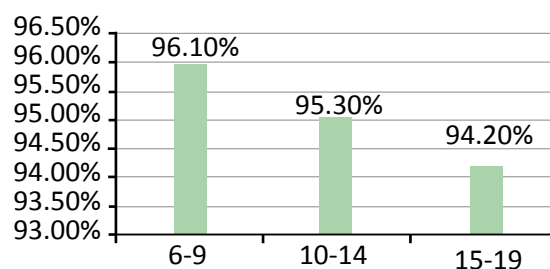


Figure 15. Percentage of children by age groups who attended school during the last academic year and were absent from classes no more than 4 weeks, MICS



Source: MICS 2005

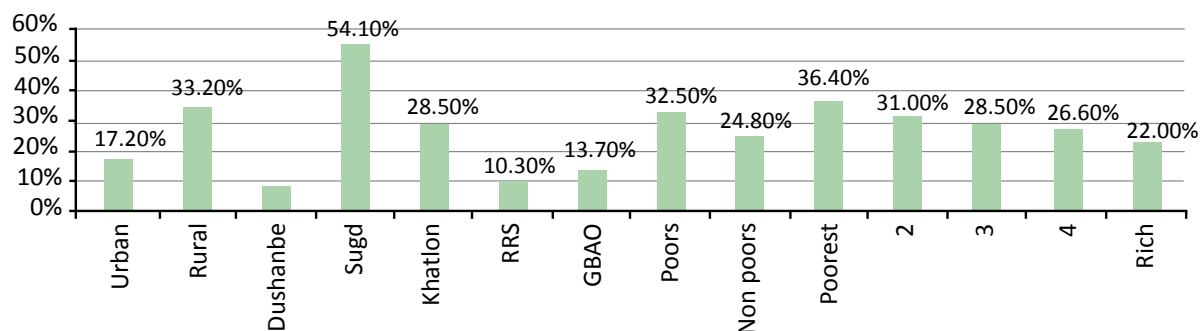
The percentage of children having attended primary school is 98–99% for boys and 97–98% for girls, depending on the region. In basic education, the school attendance rate varies from the lowest in Soghd (85%) to the highest in Dushanbe (95%), and for girls from 79% in Dushanbe to 93% in GBAO.

Another important aspect that can actually affect not only overall school enrollment of children, but also actual school attendance and hence better quality education is the provision with free

²⁴ Social Exclusion Survey (SES) of UNDP «On the other side of transition: from alienation to a comprehensive human development of the CIS», 2009. The survey covered 2,400 respondents in Tajikistan: the number of respondents who studied at the time of the survey in school or had school-age children reached 1,479.

hot meals to schoolchildren,²⁵ first in primary schools, and subsequently, to the extent possible, in basic education. In this way, it is possible to decrease the problem of malnutrition among the children to some extent. This requires substantial support from specialized United Nations agencies, whose activities are directly aimed at improving education, reducing poverty and child malnutrition. Figure 16 shows the provision of hot meals to children according to TLSS-2007.

Figure 16. Percentage of children who attended primary grades 1,2 and received hot meals in school during the last academic year



Per capita financing of education

Public expenditure per student varies from region to region. In the regional context, GBAO has the largest expenditure and Khatlon Region has the lowest. Throughout the country, spending per student amounts to TJS 180, which is 2.3 times less than the highest rate in GBAO. But this interpretation of the data should take into account that in Badakhshan, high education costs are primarily related to the dispersed population.

For this indicator, there are also significant regional variations in cities and districts of the country. The largest flow of funds is for Roshtqala District, GBAO (TJS 615) and the smallest, in the Rasht District, RRS (TJS 67). Comparatively high schooling costs per student in GBAO are explained by its lower percentage of school age children compared to other regions of Tajikistan and much smaller class size than the established norm.²⁶ The latter figure is questionable, however. It should be noted that the share of extra budgetary funds is 0.6% in GBAO and 2.1%, in Soghd (while in other regions, schooling costs are covered by the state budget (Figures 17 and 18).

²⁵ It should be noted that according to NSC of the 2008/2009 school year, hot meals (not free of charge) were provided to 40–50% of pupils in the country. The percentage varies by region, with the highest percentage in Dushanbe and the lowest in GBAO and RRS. For more details, see NSC 2008/2009.

²⁶ The region in comparison with other regions has a low birth rate; hence, there are low natural population growth rates. The low number of children at schools of this region affected by net emigration of population from this region to other regions of the country.

Figure 17. Funds and expenditure allocation per student and number of students by region (absolute value)

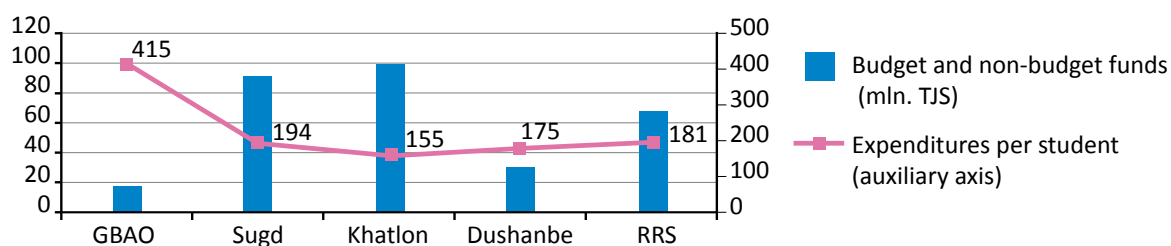
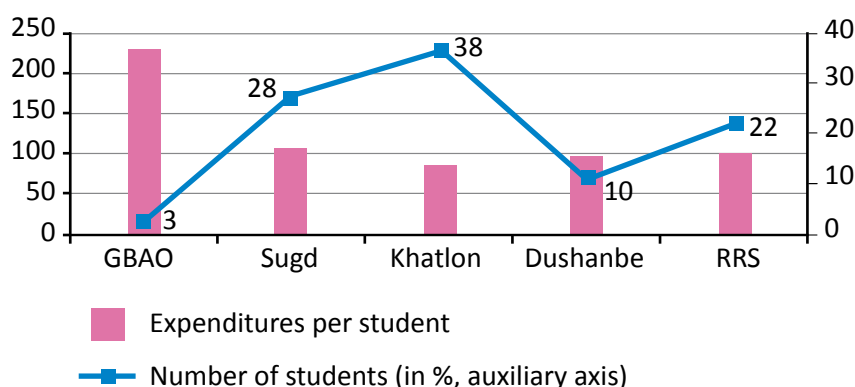


Figure 18. Expenditures per 1 student and number of students by region (in %)



Strategy papers and upcoming education system reform

With respect to the upcoming transition to a 12-year education system, which many developed countries and some CIS countries have already transitioned, the educational system of the country will undergo a serious change. In accordance with the amended Law of the Republic of Tajikistan «On education», until 2016, the Republic of Tajikistan will move to a new 12-year cycle of education in secondary schools of the country²⁷ (Box 1).

In 2005, the proportion of active schools based on the per capita funding system was 10% against 15.5% in 2007 and 30% in 2008. The fully introduced per capita financing system in education is scheduled for the more efficient use of the budgetary funds.²⁸

The senior management of the country states that the professional level of university graduates does not comply with labour market demand and requirements, and that in parallel professional training in several universities does not meet the real needs of the national economy. Further, there is a shortage of, inter alia, specialists, educational materials and teaching manuals on specific, required specializations.²⁹

The allocated funds are unlikely to be sufficient to change the situation. Decent wages are fundamentally able to solve the problem of the shortage of qualified teaching staff and at the same time provide better quality education. Each year, the country's universities train vast numbers

²⁷ The Law was passed on 28 April, 2010, by Deputies of the Lower Chamber of Parliament of the Republic of Tajikistan.

²⁸ PRS-3 for the 2010–12 period, p.13.

²⁹ E.Rakhmon: "We need a continuous reform of education." http://www.khovar.tj/index.php?option=com_content&task=view&id=20679&Itemid=

of teachers, more than the need for education; the only reason that graduates do not work in this sector is low wages.

The national strategic documents such as the NDS for the period until 2015 and PRS-3 for the period 2010-2012 focus adequately on education at all levels. For the period from 2010 to 2012 the government will spend 15.2, 19.8 and 20.2% of its national budget revenue on education, respectively.³⁰

Staffing of schools and their educational level

The Ministry of Education has initiated training (improving educational level) for teaching staff in schools who have completed secondary, technical secondary and undergraduate education. This measure that can partly solve the problem of low educational level of teachers. The argument for supporting such a decision is that this category of teachers has sufficient teaching experience and the likelihood that they will leave school is minimal compared with those who graduated from universities of the country in recent years and were not employed according to their qualification. The only reason that these teachers have remained with the lower level of education is the lack of money to continue studies. Another measure, which is commendable, is the organization of refresher courses in the field.

But improving the skills of current teachers will only solve the problem related to educational level, rather than a lack of teachers, especially in such subjects as mathematics, physics, chemistry, Russian and other foreign languages. Another concern is the ageing of the teaching staff due to the reluctance of young people to replenish the ranks of teachers, or very low flows of the younger generation to replace ageing teachers for the past 20 years, which risks further staffing shortages. The official data of the Agency for Statistics had no information on the age structure of teachers that would actually confirm our assumptions.³¹ These numbers are not reflected in the report based on data from the National Census of Schools (NCS).³²

Given the available data on the numbers of employed and university graduates, this trend can be indirectly evaluated and monitored.

In 2008, the number of graduates in the education sector was 10,335, which increased by 2.6 times over 2002, and made up nearly 50% of all graduates of higher and secondary specialized schools. Reducing the number of teachers, albeit marginally, from year to year within the context of the increasing number of university and college graduates in the country, says that it is due to leaving older teachers. For example, in the 2008-09 academic years, the number of teachers with higher education dropped by nearly 4,000, while the number of teachers with lower education was not significantly increased compared to the 2002-03 academic year. Regionally, the situation is similar in Sughd and GBAO, whereas the opposite situation can be observed only in Dushanbe, with no significant change in the other two regions/provinces. The total number of teachers has declined over the same period by nearly 5,000 people.³³ On the other hand, the school population is a growing due to demographic trends in the country and therefore, the shortage of teachers may have some undesirable implications in the future if the situation with teacher's salary does not change.

30 PRS-3 for the 2010-12 period, p.63.

31 It would be advisable to submit these data by regions and teaching subjects.

32 For more details, see Mark Agranovich, «Analysis of a national school census data and Educational Management Information System», draft version of the report, March 2010.

33 Data of Statistics Agency of Tajikistan, Education in Tajikistan, 2009

On the other hand, the above-mentioned report on NCS, in principle, keeps record of teacher seniority, but this data needs to be regrouped to obtain a better understanding about the proportion of teachers of different age groups. Rearranged data in NCS by larger can confirm our assumptions.

Schools in Tajikistan have a female face, i.e. the number of female teachers prevails by more than 50% and this trend increases from year to year (e.g. 45% of female teachers in 2002 compared to 53% in 2008) and is observed in all regions of Tajikistan without exception.³⁴

There is a dramatic shortage of teachers in the rural areas. In our view, providing motivation to young people to work in schools throughout the country by the local authorities can radically solve the problem of the teacher shortage, as it is related to low salaries and lack of incentives, rather than lack of trained teaching staff. One of the measures could be the allocation of land and assistance in the construction of houses for teachers by the local authorities. The same action is appropriate in urban areas, as there are some cases in Dushanbe where teachers have to live at school.

Increasing and ensuring decent wages of teachers will also ensure full employment in the sector and partly mitigate the employment problem in the country. On the other hand, a decent salary can radically change the situation of understaffing with teachers (especially with higher education), as the latter is not caused by the lack of the trained teachers (as the analysis of data indicates). As is known, the education sector is the branch of non-productive sectors of the economy where the educational level is higher than any other sectors, including both the productive sector and non-productive sectors of the economy. However, as the Agency for Statistics reported for 2008, salaries of teaching and non-teaching staff in the education sector lags behind the average wage in the country by 22%.

Some figures are provided below to outline the situation on wages in Tajikistan and in different countries. In international practice, to assess the level of salaries for teachers, a different, though similar indicator is used – wages of teachers relative to GDP per capita. Without detailed national statistics and the NPSH data, it is impossible to calculate this figure for Tajikistan, but we can roughly estimate its value at 1.05 (i.e. wages in education is about 5% higher than GDP per capita). Similar indicators for the least developed countries are over 2.5; in the less developed countries, 1.6; in the developed countries, 1.3.³⁵ The same figures for Tajikistan should be equal to the least developed countries. This ultimately facilitates the solving of the problem associated with the shortage of teachers with higher education (for many natural and science subjects), which generates a healthy competition in the sector. All of this ultimately provides a better quality education.³⁶

Like other indicators, teachers' wages vary considerably by regions and districts of Tajikistan. With respect to the variation of the average wage for the areas of Tajikistan, the highest wages are observed in Dushanbe city, and the lowest in GBAO and Sughd, compared to the national average wage. The salary scales are strongly different by a larger extent in cities and regions across the country.³⁷

34 Data of Statistics Agency of Tajikistan, Education in Tajikistan, 2009.

35 Cited from the report of Mark Agranovich, «Analysis of a national school census data and Educational Management Information System», draft version of the report, March 2010

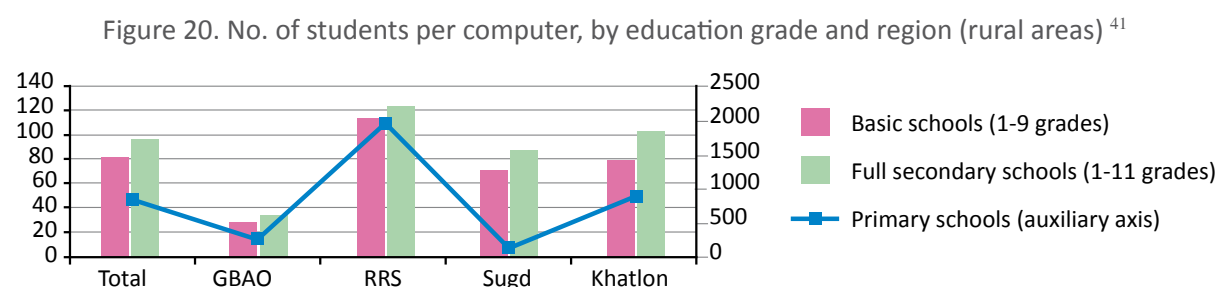
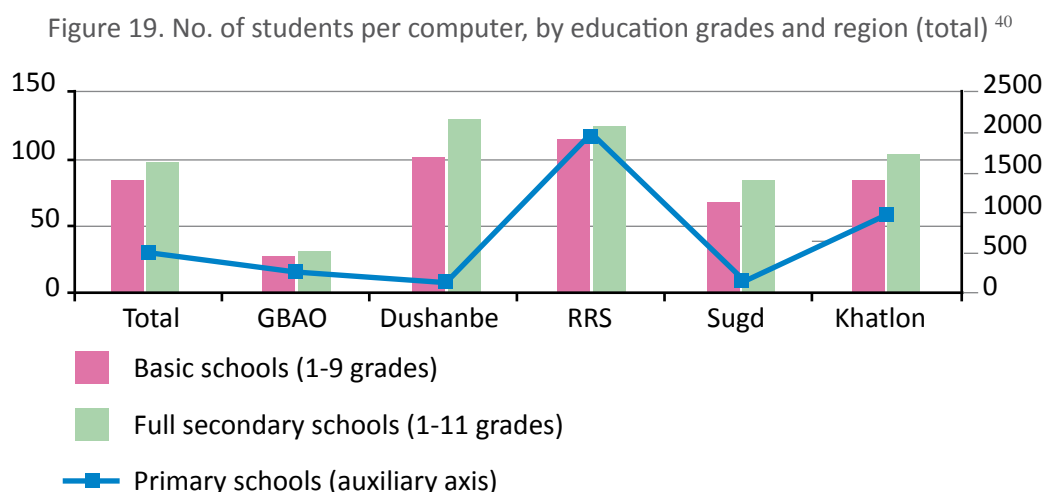
36 The reason for comparing Tajikistan with low income countries is the low GDP per capita in these countries, as well as in Tajikistan, compared with the advanced developed countries.

37 Mark Agranovich «Analysis of the National school census data and Educational Management Information System», draft version of the report, March 2010

Personal computers in use and Internet access

Modern secondary education must include mastering computer literacy. The secondary schools curriculum of Tajikistan includes information technology in volume one hour per week in 7-9 grades and two hours a week in 10-11 grades.³⁸

In general, the quality of training, and the logistical and human resource base of these facilities are weak and do not meet state standards. Reasons for low knowledge of students are: weak performance of subject departments and inadequate supply of proper quality textbooks; non-compliance with the teaching standards of the equipped laboratories and classrooms of the natural sciences; shortage of chemistry reagents and modern equipment; and poor organization of scientific groups of students.³⁹ The student-computer ratio is 62 students per computer, which is inadequate, but even the existing computers are not used fully due to lack of electricity in the winter time in the countryside and the number of teachers in IT subjects, even in metropolitan schools, much less provincial schools. The following NSC data show the provision of schools with computers and Internet access.



38 Mark Agranovich, «Analysis of the National school census data and Educational Management Information System», draft version of the report, March 2010, p. 56.

39 A. Rakhmonov: «Databases do not meet the state standards.» http://www.khovar.tj/index.php?option=com_content&task=view&id=20169&Itemid

40 NSC-2008/2009

41 NSC-2008/2009

Many schools have no or limited Internet access, which is shown in Table 6 by the NSC data:

Table 6. No. students per computer with Internet access, by grade of education and region⁴²

No. of students per computer having Internet access, by levels of education and regions	Primary schools	Basic secondary schools (1-9 grades)	Complete secondary schools (1-11 grades.)	Of those in rural areas		
				Primary schools (1-4 grades)	Basic secondary schools (1-9 grades)	Complete secondary schools (1-11 grades.)
Total in the country	28,687	35,759	2,381	-	63,821,5	524,346
GBAO	-	-	549	-	-	-
Dushanbe	2,474	2,913	395	-	-	-
RRS	-	29,953	17,850	-	28,414	-
Soghd	-	-	12,355	-	-	155,936
Khatlon	-	-	4,408	-	-	-

The students-computers ratio can only indirectly reflect the real situation of school education computerization, as it characterizes the capacity on studying modern computer technologies. This indicator should be read in conjunction with other indicators, in particular, staffing and computer literacy.⁴³

However, it should be noted that the process of computerization of schools is rapid. Currently, general secondary schools have been provided with 28,208 computers, 4,111 printers and 1,519 diesel generators (for rural schools). The performance rate of the State Programme is currently at 83%.⁴⁴

Integration of children with disabilities into general education

Today, one of the unsolved problems in education is the issue of inclusive education –education of children with disabilities. Inclusive education allows integrating disabled children in the environment of healthy children, i.e. children become «equal among peers», and thus the problem of their socio-cultural alienation would lose its relevance.⁴⁵

Children with disabilities (since childhood) usually attend special schools. In 2008, only 200 students were studying in boarding schools for the disabled. Compared with 2003, the number of seats in residential institutions for children with disabilities increased by 20%, but school education enrollment of disabled children is too low with respect to the total number of disabled children under the age of 16 years, which was 18,600 in 2008.⁴⁶ Consequently, many disabled children are alienated from school. Regular schools are not designed for children with disabili-

42 NSC-2008/2009

43 Mark Agranovich «Analysis of the National school census data and Educational Management Information System», draft version of the report, March 2010, p. 56.

44 A. Rakhmonov: «Databases do not meet the state standards.» http://www.khovar.tj/index.php?option=com_content&task=view&id=20169&Itemid.

45 Inclusive or included education - a term used to describe the process of teaching children with special needs in general (mass) schools. To quote from the report SES-2009, draft version, May 2010.

46 Statistical Yearbook of the Republic of Tajikistan. - State Statistics Committee. 2009.

ties to study, despite the fact that the law requires that all public sites should be adequately equipped to ensure access to the disabled. Given the acute shortage of funding in the education sector, the priorities are aimed at increasing the number of school seats in the context of the rapidly growing number of children of school age.⁴⁷

According to the representative from the Ministry of Education, school-age children living in remote areas, and above all, children with disabilities and of migrant workers (both internal and external) have dropped out of primary, basic and secondary school.

To eliminate the barriers, the Ministry of Education has developed a national programme for the reconstruction and repair of schools and removing schools from wagons and private houses to normal buildings. The concept of inclusive education is also in the process of being developed. According to official statistics, more than 200 students with disabilities currently attend regular schools. In addition, boarding schools enroll more than 1,898 disabled children.

The Ministry of Education of Tajikistan considers it necessary to create an educational system that promotes the comprehensive development of children from an early age, using interactive teaching methods.

Potential causes of incomplete enrollment and low school attendance

Identifying the actual causes of relatively low school enrollment and attendance is not feasible without conducting a thematic survey.

In recent years, several surveys, both quantitative and qualitative, were carried out, which to some extent touched on this problem. Further, in the report analysing the possible causes, some of the results of these studies will be referred to.

According to the SES-2009, most Tajik citizens believe that religion is now playing a more important role in their lives and in making vital decisions. The following respondents' answers should be noted: 26% of respondents indicated that religion plays a more important role and 44% of respondents said it played a role to some extent. Two thirds of Tajiks pray, 63% pray five times a day and 52% of Tajik Muslims attend mosque every Friday. According to the CCA-2009, today 63.61% of the population wears religious and traditional dress (the headscarf or the religious cap, skullcap, etc.).⁴⁸

A study by the United Nations Children's Fund (UNICEF) showed that the main causes for not achieving a 100% enrollment rate in education are economic. Two quantitative studies, SES and CCA, focused their attention on two main causes, which should receive special attention. The results of some qualitative studies are presented in Appendix 3 of this section.

⁴⁷ SES report 2009, draft version, May 2010.

⁴⁸ Social exclusion survey. United Nations Development Programme «On the other side of transition: from alienation to a comprehensive human development of the CIS», 2009.

Problems and risks in the education system

In general, in the past years, some progress has been made in the national educational system in terms of improved school enrollment and attendance and information technologies.⁴⁹ But there are still some problems that need attention and the direct support of the international community in order to achieve the identified development goals by 2015.

The quality of the primary, basic and secondary education in the future predetermines the quality of training at a higher level of education, in colleges and universities of the country as well as the future backbone of the scientific staff, whose knowledge and skills will shape the future of the entire educational system. Accordingly, the low quality of education in schools directly affects the quality of further education provided at the higher levels of vocational training. Student performance rating does not reflect their actual level of knowledge. There is a direct relationship between the degradation of knowledge of academic staff with low knowledge of incoming students. On the other hand, knowledge of many teachers does not meet the requirements of higher education institution/university. Most young people with higher education prefer to leave the university after completion of written dissertations and the awarding of their science degrees, and go to work for international organizations or embassies, where they can receive more than a decent wage that would ensure the production of human capital.

The quality of school education does not meet the standards and requirements. Parents with financial possibilities can send their children to fee-paying schools, but the remaining majority of the population cannot afford a paid education. Some of the government's attempts to establish presidential lyceums and bring children from all regions of the country deserve special attention, and it is hoped that these measures will continue to be supported and enhanced. But these measures can partly solve the problems in the education system, and will not affect the general population, since these schools are in regional centers, and many parents are not ready for their children to study away from home, especially girls, due to traditional mentalities. Currently, these measures can marginally change the situation, but in the medium and long term, universal access to quality education should be a priority of government educational policy.

The most problematic regions are Khatlon and Sogd (some districts) Provinces, and RRS (particularly Rasht area). As 60% of the population is concentrated in Khatlon and RRS, improving education standards in these regions will eventually lead to a general rise of the education level.

Another consideration is the number of students in the class. In many schools, where quality of teaching is relatively high compared with other schools, 45 schoolchildren in primary school class are quite common. Despite even the highest professionalism of teachers, such a class size does not guarantee good school performance. This situation tends to be mainly observed in large cities. After the end of Grade 6, many solvent parents try to send their children to Turkish lyceums, annually paying more than US\$1,000 for their tuition, where the schooling output is much better, as shown by the results of school olympiads. For comparison, in 2009, the funds allocated by the Government (from all funding sources) in education amounted to TJS 1 billion, 110 million (26-fold more than in 2000) with education cost per student per year of TJS527. It is evident that to achieve the same quality of education in Tajik secondary schools, a school education budget should be seven times higher in 2009 prices, or TJS 8,560 million, which is unrealistic today given the restricted financial capacity of the State.

49 Details are provided in Table 1. Financing of the education system of the Republic of Tajikistan, 1991–2016.

Clearly, not all parents have such an opportunity, and the likelihood that people with lower income will afford to educate their children in such institutions is minimal, since many families have four children on average.

The presence of contractual groups in tertiary education, universities, provides an opportunity to students, whose parents are able to pay for their studies, to continue education, but their percentage is not high, and some of them are unmotivated to study for a variety of reasons. Against this background, the current Presidential quota for university admission is a measure that would partly address the problem of access of poor people to higher education. However, the students admitted under this quota do not always come from the poor segment of the population, because at the local level, it is not always gifted children who are referred to study since there are subjective rather than objective factors involved. Given the current situation, applicants for the Presidential quota should be tested, by involving representatives of civil society in order to avoid «random» candidates, for the benefit of society in the long term. Another important step to equalize the opportunities of all population groups to access follow-up education is the government of interest-free loans for poor children with loan repayment following graduation of university and commencing professional activity.

The upcoming reform of the educational system (the transition to a 12-year education system) is a bold step taken by the Government, despite the financial difficulties and other obstacles. No doubt, in achieving this task, the role of international organizations, especially United Nations agencies, is regarded critical. A particularly important requirement is the openness and willingness of the Government to implement fundamental reforms that would eventually make it possible to achieve the major goals and targets in education by 2015.

One important consideration is the labour market assessment and ensured its results with respect to educational system output is in line with these market requirements through regular measures to assess the real needs of the labour market in the relevant professions and improve the quality of educational services, thus ensuring availability of trained and highly qualified specialists for all sectors of the national economy.

The concept of the transition to a new 12-year education cycle

The concept of the transition to a new 12-year cycle of education in secondary schools in Tajikistan has been reviewed and approved by the Government and by the Lower House of Parliament on 28 April 2010. The transition will be implemented gradually until 2016. In accordance with this concept, from the new 2010-2011 school year, a compulsory ten-year education will be introduced in Tajikistan, and from the 2014-2015 school year, schools will have to admit children of 6 years of age. In the transition to a new system of education, in the 2010-2011 school year, there will be no 9th grade graduation. From 2011-2012, a ten-year basic education will be introduced. From 1 September 2011, students who should be in grade 9 artificially become students of 10 grades. In the 2016-2017 academic year, a full transition to the 12-year education system will be completed. From 2016, the new school curriculum will provide three levels of education: primary education (1-5 grades), basic education (6-10 grades) and in-depth study of selected subjects in the humanities, technology and science in grades 11-12, with vocational technical training.

The transition to a new system of education is aimed at Tajikistan to integrate into the world education system and training professionals in accordance with international stan-

dards. An important point of transition to a new educational system is that the majority of students graduating from school will acquire a specialization and receive certificates, and will thus be more prepared for an independent life.

In 2012, for primary school students (grades 1-5), four million textbooks will be published based on new curriculum, which will cost TJS 36 million. The preparatory period for entry of 6-year-old children in the first grade will be 2012–2013 and 2013–2014 academic years. In this transitional period, by 2014, under the plan, for students of grades 6-10, 12.1 million copies of textbooks will be printed for TJS108.9 million and refreshment courses will be delivered for teachers.

Large-scale organizational work will be carried out for the construction of additional classrooms for first grade schoolchildren and the printing of textbooks and educational aids for young students. The construction costs will be TJS 108 million, and TJS 16.7 million will be spent on new textbooks. In 2011–2016, 1,050 schools, 1,460 classrooms and 157,000 student seats and desks will be prepared and fully provided with the necessary school furniture and textbooks (23.2 million copies).

«By this time, there will be a shortage of teaching staff of 17,400. Tajik universities and secondary specialized educational institutions will train 37 700 teachers in various subjects. With grants from the Catalytic Fund, Saudi Arabia and the German Bank of Reconstruction, 77 primary schools with 21,662 seats will be built. In view of achieving the targets in the transition period, the costs of educational offices in regions, districts and towns will increase by TJS113.9 million. During this time, TJS165 million will be spent only for printing textbooks for Tajik classes.»

For the transition to the new system of education by 2016-2017, TJS356,273 000 will be required. To implement this concept, textbooks and training manuals for students of grades 1-12 are being prepared, and the number of schools will also increase. In addition, grant will be mobilized from international financial institutions and organizations such as the Asian Development Bank (ADB) and the Catalytic Fund.

In accordance with this concept, in secondary schools students can choose and receive vocational and technical training. Along with general education institutions in Tajikistan colleges and lyceums will be also established.

Source: http://www.khovar.tj/index.php?option=com_content&task=view&id=21285

Measures planned under the PRS-3 to improve the education system for the 2010–2012 period

Major problems faced by education sector:

- The education management system is underdeveloped and has weak capacity, which, among other things, leads to a lack of resources and an inefficient use of available resources, as well as an inadequate involvement of the private sector in delivery of educational services.
- The quality and level of education have declined as a result of secondary school teachers' low salaries and the shortage of teaching staff.

- Educational facilities with physical infrastructure are in extremely poor condition and lack the capacity to meet the existing educational needs.
- There remain problems related to access to education of children from poor and socially vulnerable populations, as well as an inadequate enrollment of girls in secondary education.
- Due to the limited supply of electricity, there are problems in holding classes on computer literacy basics;
- Local communities are insufficiently involved in the management of public schools.

The tasks outlined by PRS-3 and NDS by 2015 in education to address the problems described above are as follows:

- 1) Improve educational management system.
- 2) Establish a system for more effective use of available resources and improve the quality of education.
- 3) Improve the methodological and staff support in the education system.
- 4) Improve access to education for children from socially vulnerable groups.
- 5) Modernize the logistics of the educational sector.

Ways to achieve a better education management system:

- explanation and reallocation/restriction of functional responsibilities of various administrative bodies in the sector;
- optimization of a network of primary and secondary education schools, which will improve the use of resources, while maintaining the current enrollment rates and increasing enrollments in primary and basic secondary education;
- increased autonomy and accountability of educational institutions, with the involvement of parents and local communities in the organization of schooling process and education quality control;
- strengthening the capacity of principals and other administrative personnel;
- improving informational support of education and establishment of a monitoring system for school performance and education quality;
- study labour market demand for qualified personnel, placing emphasis on vocational training to meet the demand.

The per capita financing system

In the period up to 2015, a pilot programme to implement per capita financing scheme will continue and will be aimed at increasing transparency in the use of public resources, establishing close ties between funding and performance of educational institutions, resource allocation, given the number of students and specific regional and local conditions, and providing educational facilities with much greater autonomy and responsibility for use of the public funds.

The introduced new payroll system will more closely link the salaries and qualifications of workers with real labour costs of teachers, retain teachers in the sector and improve the quality of education.

Proper organization of the provision of services by public schools and concerted efforts to support the development of private educational institutions would allow for an infusion of additional funding in this sector and the reallocation of some portion of state funding to meet the educational needs of children from the poorest and most vulnerable populations.

Enhancing methodological and personnel support for the education system is crucial to improve the overall quality of education. This will be achieved by modernizing teaching materials, improving curricula and programmes, and training manuals based on new approaches to education.

Another top priority is re-training and professional development of teachers, which will enhance the quality of teaching and reduce the shortage of school teachers, especially in rural areas. There are plans to organize refreshment courses for teachers in order to meet modern requirements and introduce new teaching methods in the educational process. Local governments will take measures to address these problems by attracting young teachers in rural schools. An independent/external system of education quality control will be created to compare the school performance assessment outcomes with the results of this type of quality control.

One of the most difficult tasks in the sphere of education is to provide increased access to education for children (boys and girls) from socially vulnerable populations. Given limited resources, large-scale government interventions are not feasible and will focus on a more efficient use of available funds, assets and techniques, together with new developed mechanisms to support children from disadvantaged families. To overcome barriers to school attendance, which is directly linked with poverty, pupils in primary schools will be provided with hot meals, and children from needy families will be given a targeted economic support and resources will be concentrated on the poorest and most isolated areas of the country.

Outdated/deteriorated infrastructure of education sector, insufficient funding and a growing number of school-age children require immediate actions to upgrade the material and technical base of the education sector. A package of measures is expected to be implemented, including construction and capital repair of school buildings, purchase of necessary equipment for classrooms and other equipment for schools and printing of textbooks. A basic requirement is creating a friendly environment for students to meet the minimum standards for lighting, heating, sanitation and hygiene.

Source: PRS-3 for the 2010-2012 period, p. 42-45

The reasons for not attending school associated with religious views

Jamoat Leningrad, Khovaling District, Khatlon Province.

Salomat Holnazarova, a teacher.

In our village, only 26% of girls and 35% of boys of school age go to school. Parents complain that children are sick, because it is cold in the school since there is no electricity

and heating most of the school year. Many children do not want to go to school because for several months a year, they have to pick cotton instead.

Traditions have a negative impact on girls of upper grades of secondary school. It has become fashionable to find brides of 14-15-year-old. The betrothed girls go to school in national wedding dresses. Young men, fiancés, come to school and bring gifts. Those who have not been proposed to as wives feel lacking and embarrassed to go to school. Therefore, girls' attendance in upper grades sharply goes down.

Parents also believe that girls should marry as soon as possible. And if she marries, she will not work, which means that there is no need to waste time on her education, given that in rural areas, there is a lot of housework and girls should help the adults.

As the survey data, «Access of girls to education», the Organization for Security and Co-operation in Europe (OSCE) office in Tajikistan, 2008

Jamoat Marxism, Bokhtar District, Khatlon Region. Sadullo Radjabov, Secondary School Director

Population of this jamoat are displaced people from mountainous areas (Hait and Vahie), strongly committed to religious strictures. Much of the male population are migrant workers in the cities of Tajikistan and in the Russian Federation. The strong influence of religion limits women's ability to receive education and benefit from any initiatives in the sphere of economic activity. Income from labour migrants in the family is very scarce and irregular. Food supply is ensured only due to subsidiary farms. In the village, there are no other sources of income except for migrant remittances, because the wages in agriculture are very low, and even they are paid out only after a long delay.

There is a basic secondary school (for 9 years) on the territory of the settlement. During the Civil War (1992–1997) girls were kept out of school because it was a conflict zone; they did not go to school until 2004. Not only did parents forbid adult-age girls from going to school, who missed school classes during the war and were now embarrassed to go to the junior classes, but even young girls of school age, because school became completely male, and in terms of their religious beliefs, it was unacceptable.

I was appointed school principle in 2004. I have been working purposefully with parents, convincing them to bring children to school. I have held lectures at the mosque, where usually an all-male population gathers, visited homes and talked with parents. As a result, all children of school age, including girls, have been going to school. I ensure that all teachers closely monitor the attendance of school students.

Teachers' salaries are very low. Teachers, like other villagers, have to spend a great deal of time on their land plots to feed their families. Many teachers do not like the strict school discipline because it limits their ability to raise their own subsistence crops. The school does not have enough trained teachers; some classes are conducted by senior high school students.

Parents are not very happy with the new order. They think that their children spend too much time at school, because their assistance is required at home and in

the field. They believe that girls need to get prepared for marriage and that there is no reason to educate them. They feel that education is not necessary for the hard work in the field.

In the neighbouring village, there is a general secondary school (11 grades). In this school, some boys, who have graduated from our 9 grade school, continue their education, but so far, none of the girls have continued their studies in 10-11 classes at the school located in a neighbouring village.

Based on materials from the survey «Education for girls», UNESCO, 2006..
Source: Employment within the context of human development, the Republic of Tajikistan – National Report on Human Development 2008-2009.

Findings and recommendations:

- Ensure data collection on indicator “Proportion of pupils starting grade 1 who reach last grade of primary” in the framework of NCS.
- Increase expenditure on teachers’ salaries and ensure that their decent wages are considered a matter of priority.
- Take decisive actions to create a basis for inclusive education to increase the school enrollment rate by including disabled children and children from other vulnerable groups.
- Ensure the quality of textbooks and their appropriate content, as well as their compliance with current requirements.
- Achieve universal access to Internet in both urban and rural schools/settlements.
- Achieve a rapid increase in accessibility to computers and average access to IT services at schools.
- Guarantee the provision of free meals twice a day for primary and basic school children.
- Integrate general secondary and vocational education curriculum more consistently.
- Develop a network of childcare pre-school facilities to enable women to combine family and professional responsibilities. It is important for those women with the motivation to receive a higher education but who cannot implement it because of family constraints.
- Enhance the efficiency of incentives to continue education after primary school and compulsory basic education.
- Implement specific measures for overcoming territorial differentiations in school attendance of boys and girls. More attention should be given to the territories with the largest gender gap in secondary school attendance and high girls’ drop-out rates.
- Improve the education of the present generation since it may affect education of the next generation and thus provision of overall coverage will help to avoid negative consequences in the future. Taking into account the possibility of exponential growth of the educated and non-educated population all reasons which may lead to non-education and affect them indirectly and by this ensure their social inclusion into society should be considered. The population with low level of education is easily influenced by different religious trends. So this aspect of the problem should be given particular attention.

- Conduct regular monitoring of admission under presidential and other quotas in tertiary/higher education. In this regard, it is important to ascertain the reasons for the underutilization of allocated quotas and develop a mechanism to replace student drop-outs for family or other reasons, students admitted to the university through quota systems.
- Carry out purposeful work with international donors for financing scholarships for girls to be trained in specializations with a future perspective.
- Give greater attention to the development of skills and knowledge in secondary and higher education that would better prepare graduates for the changing labour market conditions and would allow to gradually change the prevalent gender stereotypes, enabling girls and young women to get higher skilled and better paid jobs.

GOAL 3:

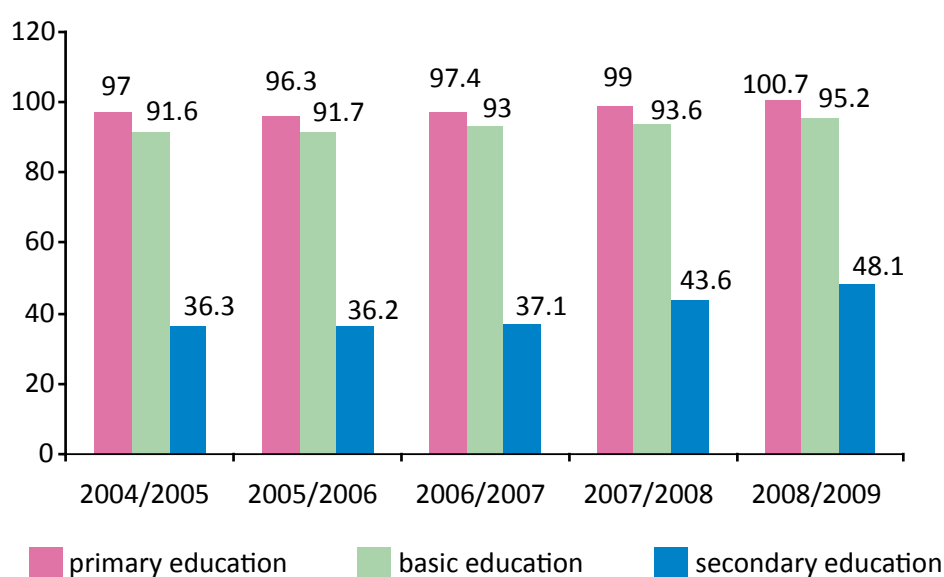
Promote gender equality and
empowerment of women



Indicators:

- Ratios of boys and girls in primary, secondary and tertiary education
- Share of women in wage employment in the non-agricultural sector
- Proportion of seats held by women in National Parliament

Figure 21. The ratio of coverage of girls by education at all levels⁵⁰



Adopted:

- Presidential Decree «On strengthening the role of women in the society» of 3 December 1999;
- National Action Plan of the Republic of Tajikistan to enhance the status and role of women for 1998-2005. Approved by Government of the Republic of Tajikistan on 10 September, 1998;
- State programme «Basic directions of state policy to ensure equal rights and opportunities between men and women in the Republic of Tajikistan for 2001-2010», approved by Decision of the Government of the Republic of Tajikistan in August 8, 2001;
- Law of the Republic of Tajikistan «On State Guarantees of Gender Equality and Equal Opportunities of their Implementation», of 1 March 2005
- State Programme «Education, selection and placement of managerial personnel of the Republic of Tajikistan from the number of capable women and girls for 2007-2016», approved by the Government of Tajikistan on 1 November 2006, No. 496;
- Long-term Strategy of empowering Women of Tajikistan, 2010.

Target 1: Eliminate, preferably by 2015, gender disparity in primary and secondary education, and not later than by 2015 – at all levels of education

National legislation is based on the principle of equality of a man and woman, which is formulated in the Constitution. Pursuant to international obligations, the national legislation reflects the country's commitment to its obligations in the field of women's rights in the sphere of family, labour, criminal matter, and others.

According to the basic principles of human rights enshrined in the Constitution of Tajikistan, the Civil Code, the Penal Code, the Labour Code, marriage and family laws, and laws on education, pensions, state support to families with children and protection of labour, on health care and others are acting in the country.

None of the legal documents of Tajikistan contains articles or rules that discriminate women, and, in general, all legal documents are gender-neutral. Tools such as gender analysis of bills, drafted strategies and policy documents are not used in law-making process.

International treaties on human rights, ratified by Tajikistan

- Universal Declaration of Human Rights;
- International Covenant on Civil and Political Rights;
- Optional Protocol to the International Covenant on Civil and Political Rights;
- International Covenant on Economic, Social and Cultural Rights;
- Convention on the Political Rights of Women;
- Convention on the Elimination of All Forms of Discrimination against Women;
- Convention for Combating Trafficking in Persons and Exploitation of the Prostitution by Third Parties;
- Convention on the Rights of the Child;
- Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography;
- International Labour Organization (ILO) Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor;
- Convention on the Rights of All Migrant Workers and Members of their Families;
- Convention against Discrimination in Education;
- Convention concerning the Employment of Women on Underground Work in Mines of all Kinds
- Convention on Wages;
- Convention on Equal Remuneration for Men and Women for Equal Work;
- Convention on Maternity Protection;
- Convention on Preventing and Combating Trafficking in Persons, especially women and children, and punishment, supplementing the United Nations Convention against Transnational Organized Crime.

In the Government of Tajikistan, the questions related to the position and status of women are dealt by Deputy Prime Minister. Since 1991, the Committee on Women and Family Affairs established under the Government of Tajikistan has been in operation. The mandate of the Committee is to promote and implement policies to improve the status of women in all spheres of public life.

Majlisi Namoyandagon of Majlisi Oli of the Republic of Tajikistan (Lower House of Parliament), and in particular its Committee on Social, Family and Employment Affairs play an important role in formulating gender policies. There are similar structures in provincial, municipal, district, representative bodies on the ground. Ministries and departments of the social services (health, labour and social protection, etc.) have departments that directly deal with women, family and children's issues.

In May 2010, the Government approved the «Strategy for Empowering Women in Tajikistan», which determines the action strategy of the Government of Tajikistan in such areas as: women in social and political life of the country; increasing women's employment and their activity in the labour market, support for female entrepreneurship development, women and their education, women and health; formation in the public consciousness of the need to ensure equal rights and opportunities; the strategy to prevent violence against women; the strategy to strengthen the family; and the main indicators and mechanism for implementing the strategy.

Thus, over the years of independence from 1991 to 2010, Tajikistan made a decisive step towards understanding the need for gender transformation and the adoption of gender democracy. However, it requires specific and practical measures and mechanisms to ensure fulfillment of the State's obligations in this area. On the way to achieve de facto equality between men and women, a number of economic, political, cultural and other barriers must be overcome.

Target: Ensure 100% coverage of girls in the stages of primary, secondary and general secondary education.

International treaties on human rights, ratified by Tajikistan

- Universal Declaration of Human Rights;
- International Covenant on Civil and Political Rights;
- Optional Protocol to the International Covenant on Civil and Political Rights;
- International Covenant on Economic, Social and Cultural Rights;
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- Convention on the Rights of the Child;
- Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography;

- ILO Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor;
- Convention on the Rights of All Migrant Workers and Members of Their Families;
- Convention against Discrimination in Education;
- Convention on the use of female labor in underground works;
- Convention on wages;
- Convention on Equal Remuneration for Men and Women for Equal Work;
- Convention on Maternity Protection;
- Convention on Preventing and Combating Trafficking in Persons, especially women and children, and punishment, supplementing the UN Convention against Transnational Organized Criminality.

According to TLSS-2007, the literacy ratio of women and girls of 15 years of age and older was 96.4%. Basic education is dominant. In primary education, the ratio of girls to boys was 48.1% and 51.9%, respectively, and 47.6% and 52.4% in basic education, respectively.

As girls approach the age of 15, that is, closer to Grade 9, their school enrollment is sharply reduced, and ultimately, about 17% of girls are out of school.

The major factors contributing to the decline in girls' enrollment include: decrease in the standards of living, increased share of the family budget on their studies, lowering the prestige of education and the deterioration in the quality of schooling; revival of traditional ideas about the role of women in family and society; the lack, in many schools, of gender-sensitive sanitation facilities; the remoteness of schools from villages; and an increasing trend in valuing the education of boys above that of girls.

In education, much progress has been achieved, in particular: the reforms undertaken, focusing on greater integration into the global educational system, changing the financing scheme, an established and permanently operating based on the Committee on Women and Family Affairs of the Republic system for training of potential women leaders, working in public administration sector; compulsory subject "Basics of Demography and Gender Policy" integrated in university curricula; an introduced and operating «presidential quota» mechanism, for girls from remote regions, providing them with the opportunity to access higher education; and increased visibility of activities of non-governmental organizations dealing with education, including the female population.

The weaknesses include:

- low enrollment rate of girls in secondary education, especially in rural areas;
- a persistent traditional perception of the relatively low importance and need for girls to receive basic general secondary and vocational education. Family income is becoming the most important factor in access to education;
- insufficient funding for education, which is reflected in the persistence of problems with school infrastructure and the provision of qualified staff;
- gender education that has not received a proper place in curricula and training programmes;

- the significant labour and time costs of women's domestic work, with the most of the burden of unpaid domestic work falling on women, leaving them little time for training, skills development and self-education;
- lack of publications in the media on the problems in and obstacles to women's participation in the schooling process.

Education is less accessible to disadvantaged groups and the vulnerable category of people with disabilities. Reducing the number of girls in high school together with the prevalence of traditional gender stereotypes, combined with low standards of living of the population affects the real accessibility of higher education for girls.

In comparing the number of girls graduated from basic education with the number of students in Grade 10 classes, the admission rate to institutions of primary and secondary vocational training shows that a minimum of 20% of girls is lost annually in this educational chain.

The highest proportion of girls and women (38.8%) are trained in tertiary education institutions in the fields of pedagogy, 29.9% in health care and only 16.2% in industry-specialized universities.

The Labour Force Survey (LFS) – 2004 showed that most of the economically active female population has a general secondary education, which indicates their relatively low enrollment in vocational education. Moreover, in comparison with men, a smaller percentage of women have a higher education, since a larger proportion of women have basic and complete general education, which illustrates that most of the economically active female population has relatively low professional competitiveness.

According to the World Bank, the 1% increase in the number of women with secondary education will lead to an increase in per capita income at 0.3%.

From a gender perspective, enrollment of female students in higher education is increasing compared to special vocational education.

Figure 22. Education level of women at 15 years of age and older

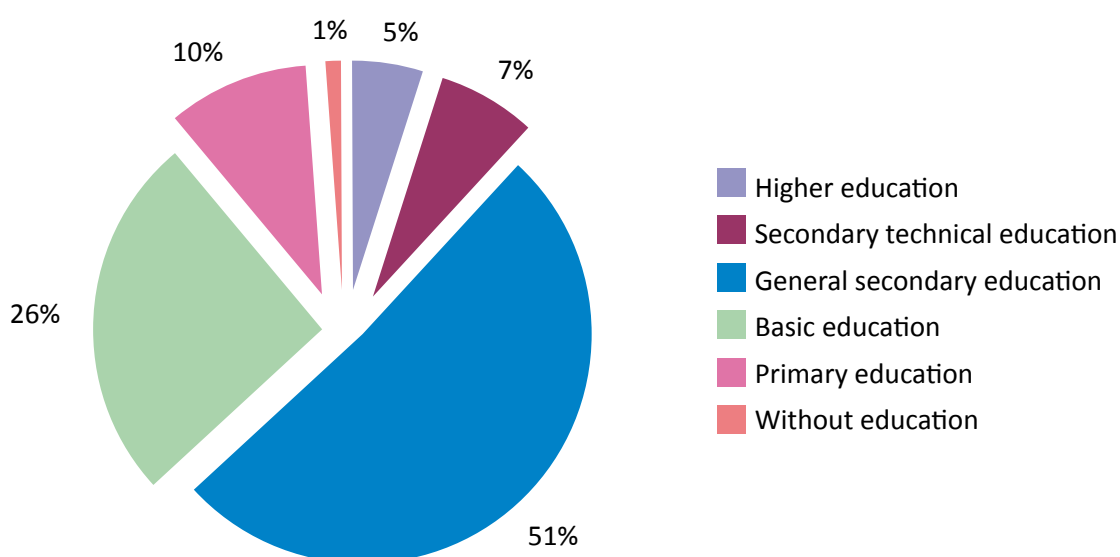
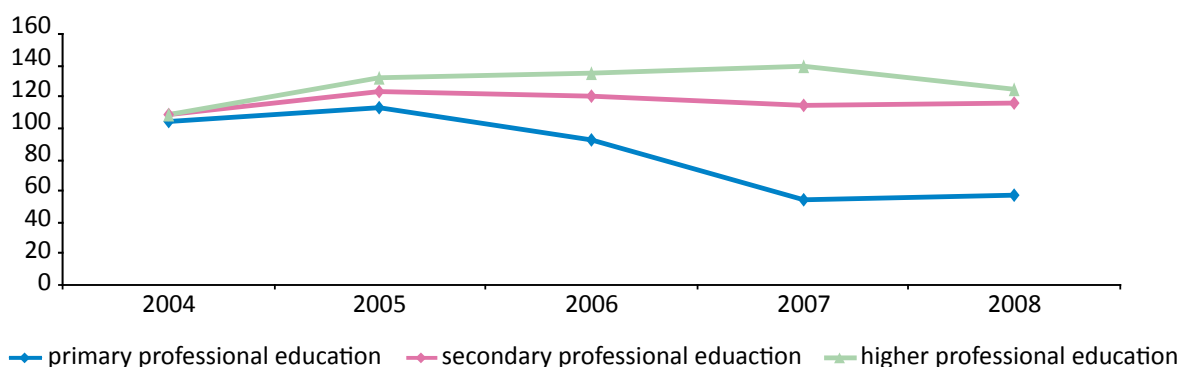


Figure 23. Growth in admission rates of girl-students to the national professional education system (2003=100%)



The educational status of rural women significantly affects their economic activity and employment advancement. The data presented in the Table 7, demonstrate the significant gap in education, not only in comparison with rural men, but also with urban women.

Thus, 6.2% of employed rural women have completed primary education and 1.2% do not have any education. Only 3% of employed rural women have higher education.

Table 7. Education level of employed population (in %)

Education	Urban areas		Ural areas	
	Male	Female	Male	Female
Higher	29.0	20.9	10.6	3.0
Incomplete higher education	2.9	0.5	1.4	0.4
Specialized secondary education	9.1	16.9	8.3	5.1
Primary professional education	12.8	3.5	11.2	1.3
General secondary education	38.2	44.7	48.5	59.2
General basic education	7.1	9.7	15.7	23.6
General primary education	0.8	3.3	3.8	6.2
No general primary education	0.2	0.5	0.5	1.2
Total	100	100	100	100

Rural women and girls have limited opportunities to participate in social, educational and economic activities since they have to great deal of domestic work and work in individual subsidiary plots. Over 86% of the rural women are employed in agriculture, including more than 53% of those who do farming on their personal subsidiary plots.

Family poverty forces women to exchange commodities with products of their own labour (tailoring, laundry, canning vegetables and fruits, etc.). This enormously increases the domestic workload of women and further alienates them from paid jobs and a social life.

It is observed that for girls to get specialization at the secondary level (SVES) is more important than a higher professional education. School education provides a basis for receiving higher professional education. Reducing the number of girls in upper grades of general school determines their low representation in higher education system.

The measures taken by the Government in improving the education of the female population currently are still insufficient. The country is unlikely to eliminate gender disparity in primary and secondary education by 2015.

Target 3: Achieve a 50% share of women in the economically active population.

Gender inequality in employment in Tajikistan is already manifested in the weak participation of women in the labour market. This means that basic income – being a source for increasing household welfare, investing in human capital of family members, and increasing savings for the sustainable level of consumption in the future – is provided mainly by men. As a result, women are economically dependent on men, which increases their and their children's vulnerability. As in many parts of the world, women are more vulnerable than men in the labour market; the policy on gender equality traditionally focuses on maintaining women's position in employment.

Women's participation in the labour market is critical for many reasons:

- It is a source of economic independence of women.
- It entitles them to social security and pensions and relevant health care services.
- It provides opportunities to improve social status and personal development.

In 2007, the proportion of women employed in the non-farm sector was 37.1% compared with 38.2% in 2008.

Of the total average annual number of employed women, 6.3% are employed in industry, 54.5% in agriculture, forestry and fisheries; 0.9% in construction, 1.7% in commerce; 1.8% in transport and communications, 2.1% in utilities and consumer services, 9.7% in healthcare, 17.2% in education, 1.9% in science, culture and art, and 3.6% in public administration and lending.⁵¹

The number of men employed in different sectors of the economy is several times higher than women, for example, 2.3 times in industry, 7.7 times in construction, 2 times in trade, 3 times in transport and communications, and 2.1 times in public administration and lending.

Table 8. The structure of average annual number of employees, 2008 (in %)⁵²

	Men	Women
All sectors	58.2	41.8
Industry	69.7	30.3
Agriculture, forestry and fishery	54.8	45.2

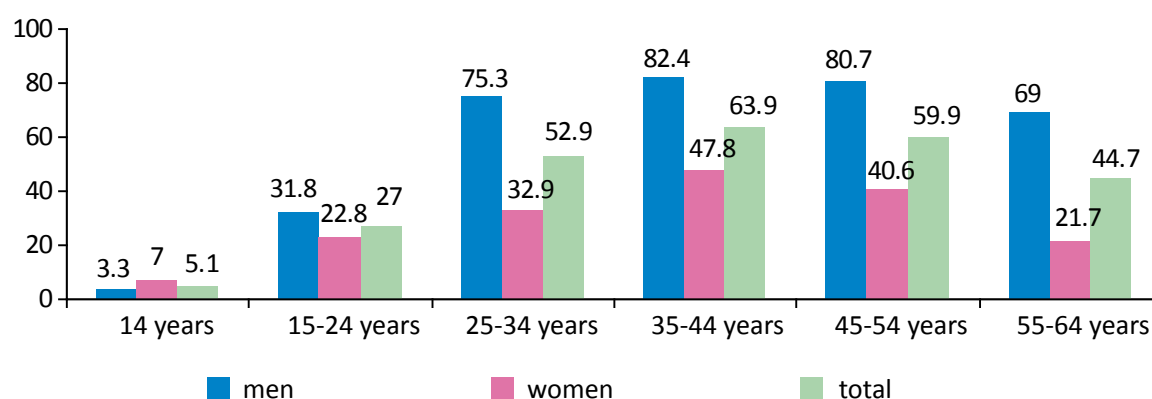
⁵¹ Women and Men of the Republic of Tajikistan. Statistics Book. Dushanbe, 2010, p. 69.

⁵² Ibid, p. 69.

	Men	Women
Construction	88.4	11.6
Trade	66.2	33.8
Transport and communications	74.6	25.4
Housing and communal and general services	63.5	36.5
Healthcare	43.2	56.8
Education	55.2	44.8
Art and culture science	50.3	49.7
Public administration and crediting	67.6	32.4

The economic activity rate varies considerably by age. Men represent the highest percentage of the workforce population.

Figure 24. Level of business activity of population, in %⁵³

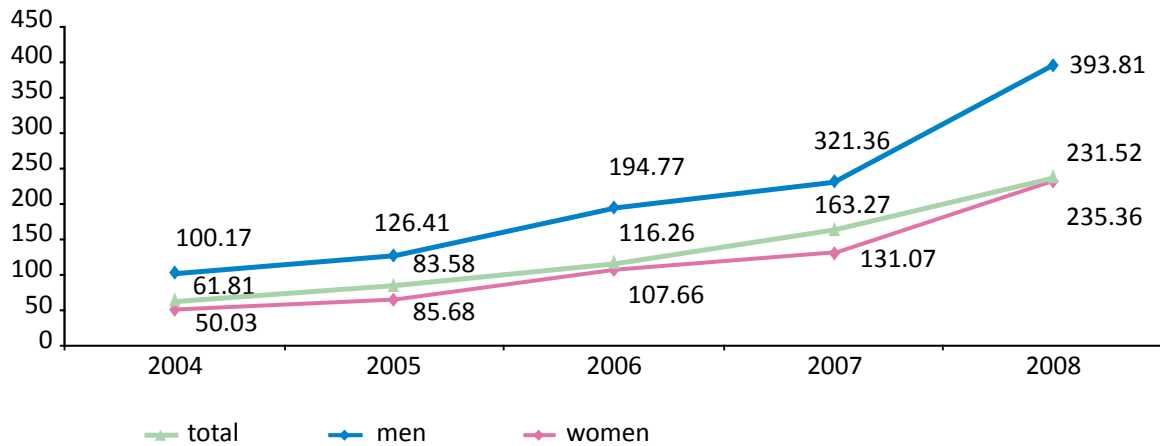


The share of the economically active population in overall population of Tajikistan was 43.8%, including 58.1% of men and 31.1% of women. A moderate share of the economically active population is found in the 35-44 year age group and it is 63.9% of the total population, including 82.4% of men and 47.8% of women. The economically active population is differentiated by regions of Tajikistan. Khatlon Region has the lowest percentage of economically active population (47.1%), where men and women make up 55.5% and 39.5% respectively of the total population. The lowest share of the economically active population is in GBAO, with 35.4% of the total population (44.1% of men and 28.0% of women).

The ratio of average monthly wages of women to that of men was 59.8%.

⁵³ Ibid., p. 14.

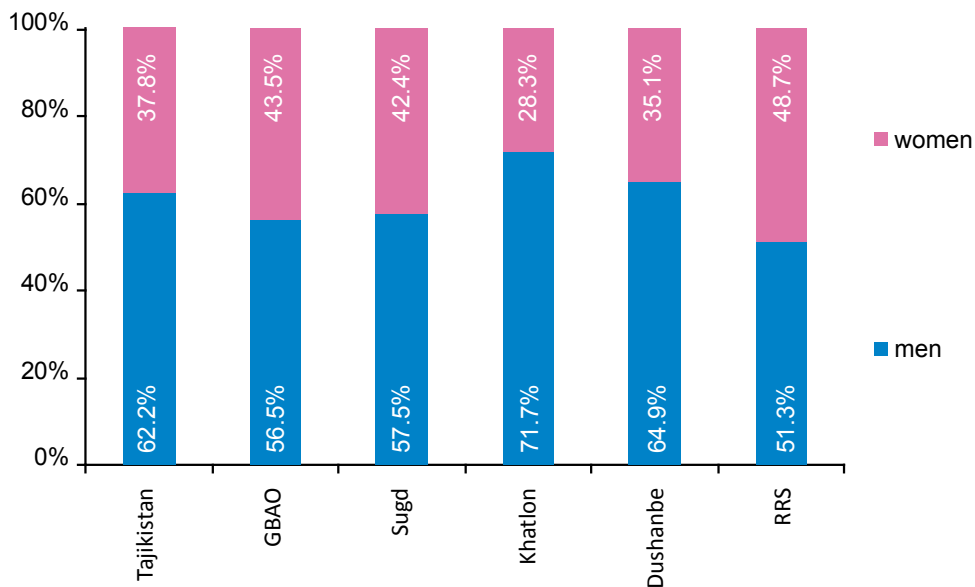
Figure 25. The average monthly nominal wage of the workers in enterprises and organizations (in TJS)⁵⁴



Out of the total number of workers employed in small enterprises, 20.4% are women. The sectoral breakdown of male and female employees in small businesses corresponds to the total employment structure.

Out of the total number of employed people, 70% of the men and 65% of the women are employed in production sectors, and 30% of men and 35% of women are employed in non-production sectors.⁵⁵

Figure 26. Managers and specialists' share among the hired labour force⁵⁶



54 Ibid., p 83.

55 Ibid, p.69

56 Ibid., p 72.

Women's access to financial, natural resources and physical capital is limited by lack of access to micro-credit services and other schemes of income-generating activity, their inadequate awareness of their economic and other rights, as well as their low knowledge of the procedures and rules to obtain land, property and other assets.

Microfinance organizations have made a significant contribution to improving women's economic activity. Microcrediting is an effective tool for the poverty reduction in Tajikistan. Many microloan projects in the country specifically target women. Further, although coverage of these projects was not considerable, they still played a significant role in reducing poverty among women. The average loan size is US\$300-400. However, due to the high demand for this banking product, the system of individual loans with flexible payment schedules has been gradually introduced. Individual and corporate/group loans are relatively expensive; their monthly interest rates are on average 3.5% and above, plus the cost of filing the application. Despite the high cost, both types of lending are still in great demand. The development of microlending throughout the country at the expense of investments in the development of small- and medium-sized businesses, especially in remote mountainous regions, is seen as a top priority area.

In 2009, the aggregate amount of the allocated micro loans by all MFIs operating in Tajikistan amounted to TJS1,626.0 million,⁵⁷ but decreased by 2.2% over the previous year. In the remote mountainous regions of the country, the amount of disbursed micro credits decreased by 6.4% over the previous year. Out of the total number of processed micro loans, 82.2% were credits for business development and 24.3%⁵⁸ of allocated loans were destined for women.

Governmental Decree of 4 July 2006, No. 307, «On establishing the Presidential Grants for the development of small- and medium-sized enterprises, the involvement of women and girls in professional training, increasing their legal knowledge and creation of new jobs for 2006-2010» and another Governmental Decision of 4 September 2008, No. 448, approved a new Presidential Grant Programme aimed at developing women's entrepreneurship from 2008 to 2010. During the 2006-2009 period, 190 projects were implemented, which resulted in job creation for 15,000 women. The total disbursed grants amounted to TJS3.3 million.

Since the 1990s, the two programmes of the Aga Khan Development Network were engaged in providing loans to entrepreneurs and farmers in Tajikistan. Support Programme for Development of Mountain Regions of the Aga Khan Foundation has provided loans to small farmers and women's associations during the difficult transitional period in Tajikistan, which followed the collapse of the Soviet Union. In addition, the business support programme, launched in 1996 by the Aga Khan Fund for Economic Development, provided loans and technical assistance to small entrepreneurs, including women. The activities of these two programmes were subsequently consolidated under one agency, Aga Khan Microfinance Agency.

As of April 2009, the credit portfolio of the financial sector in the country reached US\$1,078 billion, of which 86.7% belonged to commercial banks and 13.3% to microfinance organizations. One of the goals of the MFI is to support vulnerable populations, especially women. However, the proportion of women among the clients of these organizations is decreasing. As of April 2009, 143,600 people were active customers of MFIs, of which 34% were women and 66%, men. As seen, without specific commitments to maintain gender parity, women are less competitive and are losing ground.⁵⁹

57 According to data of the National Bank of the Republic of Tajikistan.

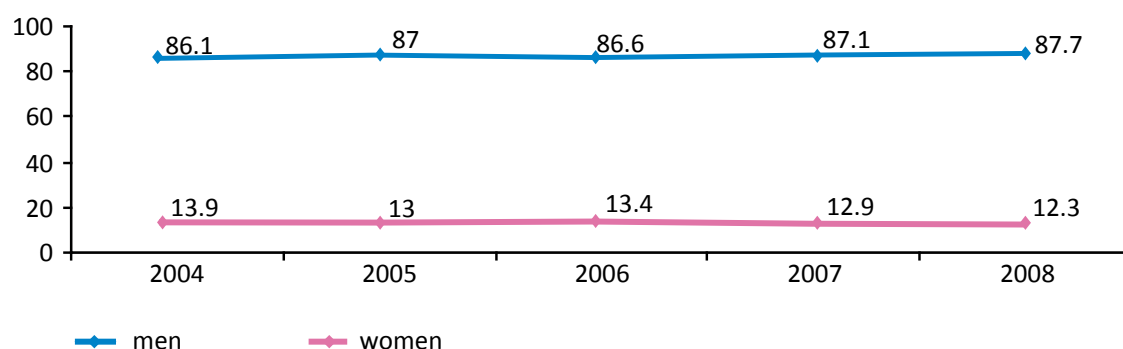
58 Ibid.

59 Report of Tajikistan Microfinance Organizations Association (TMOA), 2009

Distribution trends of men and women by economic sector show that for the 2000 to 2009 period, gender segregation has increased, for example, the increased proportion of women in the lowest paid sector – agriculture. In addition, in high-paying sectors such as industry and construction, the proportion of women has decreased more than 1.5 times. A notable exception are the public administration and lending sectors, where the number of employed increased by more than 1.8 times over the years, and the proportion of women in these sectors rose from 26 to 52%. However, this sector of the economy enrolls only 4% of the aggregate number of employed. In 2000, the horizontal segregation index increased from 16.5% up to 18.3% in 2006. Although this index is relatively low, the gender gap is broadening due to an increase in the proportion of employed women in low-paying industries and in the proportion of men employed in high paying sectors of the economy. The concentration of women in agriculture and the current trend of increasing share of women in this sector is a concern, since this sector has one of the lowest earnings levels. Ensuring a stable income is closely linked to the availability of land rights.

The reality is that most owners of farmland are men, although over 80% of employed women are working in agriculture, and only 12.3% of farms are managed by women. This indicator has decreased compared to 2004, since women are mainly farm-hands in the agricultural sector and perform heavy low-paid jobs.

Figure 27. The share of the men- and women-headed farms⁶⁰



In Tajikistan, women's income is far behind that of men. Gender differentiation of wages is also expressed by the regional specificity; size of women wages in the regions is lagging behind that of men. As a result of the wage gap, there is disincentive to accumulate human capital and demotivation of women to enter the labour force.

At the same time, women's economic activity due to socio-demographic characteristics of the country (high birth rates, employment segregation by sex) is at a lower level than men. TLSS-2007 indicated that economic activity rates for men and women of 14–64 years of age was 58.1% and 31.1%, respectively.

There are large differences in the distribution of men and women by type of employment. Women predominate in sectors such as services and agriculture, which are underpaid. Thus, in health care, 66.3% of the total number of employed in this sector are women; 52% in education, and 55.7 in agriculture.⁶¹ By employment status, there was a preponderance of women working in collective farms, helping in family businesses and self-employed.

60 Gender indicators in dehkhan farms. Statistics Book. Dushanbe, State Statistics Committee of Tajikistan, p. 52-60.

61 MICS-2004.

«Male» sectors include construction, transport and communications, power generation and gas production, mining, real estate transactions, public administration and security, other community services, financial services and manufacturing. The highest concentration of women is in sectors such as health care and social services. Agriculture, education, hotels and restaurants belong to the category of intermediary sectors.

Clearly, the mere presence of «female professions» does not mean that women are discriminated against. The problem is that their employment capacity is very limited. The number of «female» industries and professions is quite low, which leads to a sharp gap in payment of female and male labour, and can be considered indirect discrimination against women. According to TLSS 2007, the wage gap based on gender (the ratio of median hourly wage of working women and working men in their main jobs) was 0.36.

With the exception of horizontal segregation, which occurs in the country, there is vertical segregation, as proven by the fact that men constitute the majority of specialists and managers.

Sector segregation is one of the reasons for a gap in average wages between women and men, which is 59.8%. Despite a slight improvement in this indicator during the last three years due to increased salary of employees of industries, substantial progress on this indicator is difficult to anticipate precisely because of the increasing segregation in vocational education and the labour market.

The second reason for the current gap between the wages of men and women is that fewer women are at top levels of the government where wages are higher. Women do not hold leadership positions, even in traditionally «female» sectors. The low pay of women is often not seen as a serious problem, it is stereotypically assumed that women have access to other resources through spouses and other family members. The increasing number of single mothers, divorced women and women living in an unregistered marriage (*nikokh*) is not taken into account. The economic crisis, changes in ownership, downsizing and privatization of social security facilities, the growing influence of conservative and religious groups have put more of a burden on women. Various forms of women's self-employment and their employment in the informal economy have been propagated, where there is virtually no social support and women's family responsibilities are ignored.

Increasingly, Tajik women are taking on the role as family breadwinner or co-supporter, which was not characteristic of Tajik woman in the past. In addition, this can occur not only when a woman is widowed or divorced and left with young children, but when the man, head of the family, is unable to financially support his family. Employment activity gives impetus to the social mobility of the female population of the country, which leads to a change in the traditional division of labour and in growth of female economic activity, particularly in the informal labour market.

In recent years, in Tajikistan the female labour migration has increased, assisted by: the deteriorated financial status of a large part of families, leaving large numbers of men to work, the cessation of contacts and relationships with their families and the creation of second families in Russian Federation, and etc. In 2008, the percentage of women among migrant workers from Tajikistan was no higher than 13%.⁶²

The Government of Tajikistan held a series of structural reforms that have had a significant impact on improving the business and entrepreneurship environment, developing private ini-

62 The Ministry of Interior data.

tiatives for women and thus laying the basis for small business development and the forming of middle-class entrepreneurs, which is the foundation of stability and support of the State.

The Government's efforts in this area are complemented by the support of several international organizations, whose activities are aimed at studying the processes of private sector development and entrepreneurship in the country, providing technical assistance and financial resources for entrepreneurial activity, and involving the private sector in the decision-making process.

The main risks are: limited access to land; energy and water resources; weakening the competitive position of women; primarily in the low-wage sectors; growing tension with liquidity in the financial sector; and as a consequence, reducing the volume of credit support for small businesses; increasing interest rate for loans; narrowing capacity of most commodity markets; particularly non-food markets; devaluation of national currency and the current increase in the costs of service of the borrowed fund turnover.

Target 4: Achieve a 30% participation of women in Parliament and at all levels of executive and legislative branches.

International experience shows that legislators commence to pass serious bills to protect children's interests only when the number of women deputies is above 20%. Laws and government programmes that relate to women's interests begin to emerge when the proportion of women in power structures is as high as 30%.

In general, in Tajikistan, there has been a low level of female representation in the legislative bodies of state power; a small number of women in leadership positions in the executive branch and in organizations of various forms of ownership; no positive image of women politicians; women leaders in the media with persistent social stereotypes about women's public and social roles; and the patriarchal approach to gender equality. Political parties have no policies or programmes to promote women in public authority, while women themselves lack political experience.

Thus, in 2008, in ministries and departments of Tajikistan, women held only 12% of senior positions of first deputies and 11% of deputies. In the executive branch, there is very small number of women on senior posts. In the local authorities, 18% of women are provincial deputy governors and 6% of women hold positions of the government executive of cities and regions, 5% of them are deputy chairs of cities and regions and 38% are vice-chairs of cities and regions.⁶³

Women, managers, in most cases operate in the lower- and middle-level management positions as the heads of departments and offices of ministries and state committees and at individual government level.

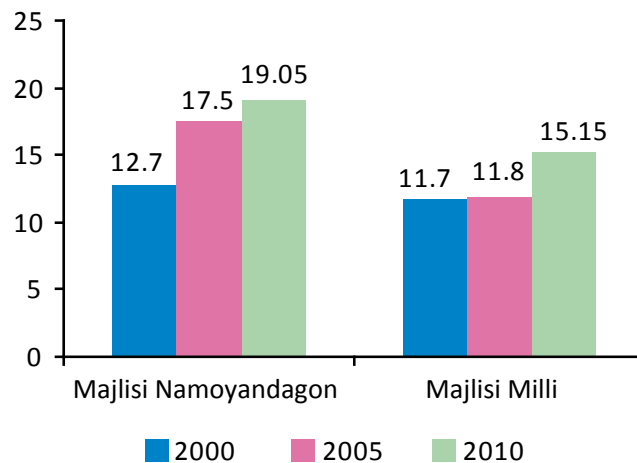
Indicators of women's participation in decision-making at the policy level fluctuate considerably depending on the level of public authority. The least women are represented in the upper house of the national Parliament, and their highest representation in the lower house of Parliament and at the level of Regional Councils of People's Deputies (Majlis of People's Deputies).

The formation of a multiparty system in Tajikistan makes it relevant to bring women in politics. However, the role of women in the process of establishing a multiparty system is relatively

63 National Human Development. 2008-2009. Employment in the context of human development. Tajikistan 2010, p.121.

passive. In Tajikistan, there is no women's political party and no women's groups in the Majlisi Namoyandagon of Majlisi Oli (Parliament) of the Republic of Tajikistan.

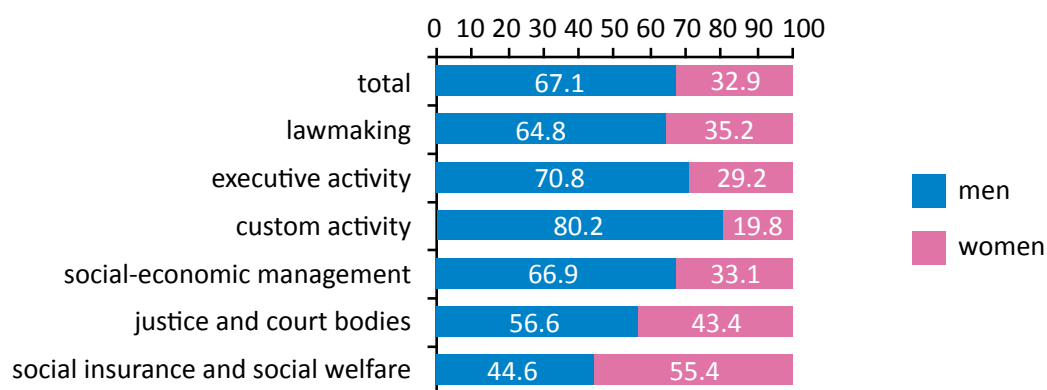
Figure 28. Women's representation in Parliament (in %)



Of all government authorities, the highest share of women is in the judiciary. Despite the implementation of a number of measures and steps taken to promote women, a 30% representation of women in governing bodies of legislative, judicial and executive power has not been achieved. The proportion of women is decreasing in government at all levels: the higher the level of public office, the lower the representation of women. Among the heads of structural subdivisions, one in three is a woman, but only 5% of the heads of public administration bodies are women.

The number of women holding senior positions in government bodies is not consistent with their role in society, although the participation of women in responsible government decisions would improve the quality of these decisions and the effectiveness of their performance. Consequently, women are not adequately influencing the political and economic life of the country and decision-making.

Figure 29. Distribution of workers engaged in public administration, 2008 (in %) ⁶⁴



In 2008, in ministries and departments of Tajikistan, only 12% and 11% of women held senior positions as first deputies and deputies, respectively. In the executive branch, there are a very small number of women holding senior positions. In the local authorities, 18% of women are regional deputy governor and 6% of women chairpersons of cities and districts, 5% are first deputies of chairs of cities and districts, and 38% are vice-chairman of cities and districts ⁶⁵.

64 Women and men. Statistics Book. Dushanbe. 2010 p.71

65 Human Development Report. 2008-2009. Employment in the context of human development. Dushanbe 2010, p.121.

In general, it can be concluded that the inadequate representation of women in leadership positions in the legislative and executive branches of government is a true obstacle to the growing influence of women in the political and administrative decision-making.

The formal equality of men and women does not promote democracy and further social development; a small number of women in government at decision-making levels reduces their role in carrying out reforms in the country. The persistent social stereotypes and prejudices, which do not contribute at all to the political advancement of women, as well as the lack of protection of women's legitimate rights and interests jeopardize the achievement of true gender equality.

Introduction of quotas for women is one of the options as a temporary measure to ensure their wider participation in the executive and representative authorities in accordance with the United Nations Convention on the Elimination of All Forms of Discrimination against Women. Another option is cooperation with international organizations on how to achieve equal opportunities for men and women, enhancing the role of women in society, and studying the experience of developed countries on political advancement of women.

In order to improve the situation, an ad hoc educational programme on the political equality of women and teaching women leadership skills is required, which should be implemented at all levels, starting from secondary schools.

Developing and strengthening the women's movement must be also an integral part of the policy of gender equality. The Government recognizes the importance of a strong civil society in the country and in principle supports NGOs and community-based organizations.

Target 5: Create conditions for women to lead decent life without violence, and the eradication of all forms of violence in all social spheres, and in family.

In 2008, the United Nations Secretary-General introduced a system of United Nations actions for 2008–2015 to eliminate violence against women. Under this system, a global campaign “Unite to End Violence against Women” began, which identified the following main objectives: to adopt and enforce the laws combating all forms of violence against women and girls, and punish such violence; adopt and implement a multilateral government action plan; improve the collection of information on the prevalence of violence against women and girls; raise awareness and public participation; and struggle against sexual violence during armed conflicts.

Prevention of violence against women has been identified as one of the tasks of the State Programme for Equal Rights and Opportunities for 2001–2010, and of NDS and PRS for 2007–2009. In 2007, the Government of Tajikistan established an Interagency Coordinating Council for the Prevention of Violence against Women, which consists of representatives from the Ministry of Justice, the Ministry of Labour and Social Protection, the Ministry of Health, the Ministry of Internal Affairs, the Committee on Women and Family Affairs under the Government of the Tajikistan, court officials and the General Prosecutor, and representatives of NGOs.

Tajikistan joined the Convention on the Elimination of All Forms of Discrimination against Women, undertaking to ensure equal rights for men and women, including the right to live free from violence. The Lower House of Parliament of the Republic Tajikistan has a Committee for Family Affairs, Health Care, Social Protection and the Environment, which is engaged in drafting legislation and participates in formulating national gender policy. At provincial, municipal, district representative bodies of local authorities, there are structures dealing with family affairs. Ministries and departments dealing with the social services (health, labour and social security, etc.) have units dealing directly with issues related to women, family and children. With the assistance of the National Commission for Women and Family Affairs, the activities to prevent vio-

lence against women are continuously carried out. In 2009, a project to establish a support centre for girls was initiated. The centre is operational under the Committee on Women and Family Affairs (supported by the Centre for the Rights of the Child, the United Nations Trust Fund, the United Nations Development Fund for Women (UNIFEM), the European Commission, and the Lottery Fund/UK). The Centre provides services for girls of 10-18 years old, who have been exposed to or are at risk of sexual violence, traffic and exploitation. The Centre can accommodate up to 20 girls who can stay there for six months. They are provided with legal advice, psychological rehabilitation and various educational programmes.

Despite a number of measures taken by the Government, Tajikistan has not yet adopted the Law on the Prevention of Domestic Violence, a National Action Plan and national statistics on the prevalence of violence. At the national level, no study on the spread of violence has yet been conducted.

It should be noted that gender-based violence is exacerbated by polygamy, early marriage, forced marriage or common-law marriages, etc. The main causes of such phenomena are:

- economic problems and low standards of living;
- deformation of the foundations of spiritual life, declining cultural standards and moral and ethical norms in society;
- reassessment of moral values, both in society and the family;
- weakening of the social function of the State with respect to women's social security;
- inadequate and ineffective law on the rights of women and family;
- legal nihilism by officials and citizens.

As of 1 November 2009, in Tajikistan, 18 crisis and resource centers were functioning in cities and regions of the Republic. Of the total number of citizens who referred to the services of the Centres, 91.8% were women and 8.6% were men.⁶⁶

Legal advice was sought by 52.3% of citizens. The problem of violence was brought to the Centres by 37.7% of citizens, and the highest percentage citizens were of 30-49 years of age. Of those who referred to the centers, 51.8% were officially married women, 7.7% married women, but not living with their husbands, and 8.6% were women in a religious marriages. Of the total number of women who applied in the crisis and resource centers, 56% had completed secondary education (10-11 years). With respect to the forms of violence committed against women, seeking support at the crisis centres in 2009, 48.4% were exposed to psychological violence, 24.8% experienced economic violence, 13.8% suffered physical abuse, 11.6% underwent multiple forms of violence and 1.4% were subject to sexual violence. Of those seeking help, 69.4% of women stated that violence was repeatedly committed against them and 30.6% reported a single act of violence.⁶⁷

Efforts to combat violence should include not only addressing its root causes, but also a range of institutional and informational measures to help identify the real extent of the problem. The first area is information provision. Improving the system of registration and statistical accounting of the facts and cases of violence can increase awareness on this gender-based problem. The second area is institutional, i.e. improvement of legislation on violence, law enforcement monitoring, introducing a system of legal protection of women, including the regulation of actions of law enforcement agencies who often refuse to influence the perpetrators of domestic violence against women, arguing that no appropriate tools. The third direction is attracting specialists, professionally dealing with this problem, to develop effective mechanisms to combat violence. The fourth direction is the coordination of efforts and resources of all stakeholders. It includes the development of forms and mechanisms of interaction between authorities and NGOs involved in combating violence. A system of continuous evaluation and adjustment of ongoing projects, programmes and interven-

66 Women and men of the Republic of Tajikistan. Statistics Book. Dushanbe, 2010. p.94.

67 Women and men of the Republic of Tajikistan. Statistics Book. Dushanbe, 2010.p. 96.

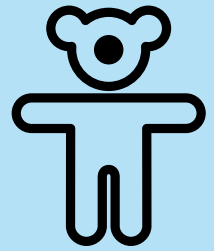
tions against violence needs to be in place. The fifth direction is creating a system of practical assistance to women victims of violence. First and foremost, financial support must be provided by public institutions to crisis centres, shelters and other forms of assistance by NGOs, which work with victims of violence. Only a systematic and coordinated policy of regional and municipal authorities, law enforcement agencies, nonprofit organizations and the media can bring positive results in the area of combating and prevention of violence.

Findings and recommendations:

- Develop a strategy to promote girls' education and a rural growth strategy based on justified mechanisms providing access to secondary and higher vocational education with a gender perspective.
- Improve a system of professional development and increasing gender awareness of teachers in primary, secondary and tertiary schools.
- Foster scientific and methodological support to teaching gender-related subjects at all levels of education.
- For bridging the gender gap in high school, as an interim measure, make education in higher grades of general school mandatory, i.e. facilitate the transition to compulsory general secondary education.
- Adopt programmes to ensure equal access for rural women to economic resources.
- Design a programme for the development of women's small and family businesses, and various forms of self-employment; create a system of business incubators where training of women on the basics of entrepreneurship is combined with psychological preparation, examination of own business plans and projects, and follow-up support in form of temporary tax exemption, concessional lending, provision of equipment, raw materials, allocation of premises, etc.; scale up counselling and career guidance of women who want to establish their business, and assist in implementing programmes that received positive feedback from specialists.
- Increase and strengthen women's participation in state power and governance through targeted training of women for their senior government positions, supporting women candidates, and introduce of quotas and other mechanisms to promote women leaders.
- Organize campaigns conducted by women's NGO in support of women leaders and establish of funds to promote women in politics.
- Design and implement special educational programmes on gender equality in schools and universities.
- Finalize, in the light of international standards, and pass a bill on protection against violence.
- Apply the United Nations Convention on Elimination of all Forms of Discrimination against Women in the judicial practice.
- Consider establishing a national focal point for combating trafficking of human beings (including women and children).
- Establish information centres, support groups and shelters in all regional centres for psychological and legal support to victims of violence.
- Conduct training for law enforcement officers to protect female victims of violence and trafficking.
- Develop and implement a national strategy for overcoming the practice of polygamy, early marriage, and trafficking in women.



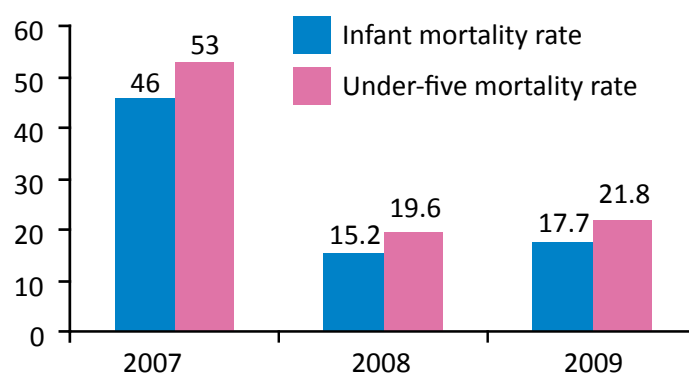
GOAL 4:
Reduce child mortality



Indicators:

- *Under-five mortality rate*
- *Infant mortality rate*
- *Proportion of 1 year-old children immunized measles*

Figure 30. Progress in reducing child mortality rate (per 1,000 live-births)



Target 1: Reduce by two thirds the under-five mortality rate.

Progress monitoring indicators:

4.1 Mortality rate of children under 5 years of age – 19.6.

The established goal by 2015 – reduce by two thirds.

4.2 Infant mortality rate – in 2008, 15.2 per 1,000 live births.

4.3 Percentage of children under 1 year of age who received basic immunization (measles, diphtheria, polio) – 94.0.

The established goal by 2015 – 100% immunization coverage rate.

In 2008, it was 96.7%.

The current situation and trends of child mortality

The situation analysis shows that currently in the country, with a developed reproductive health and pediatric care facilities, access of infants, children and adolescents to the health protection is inadequate for a number of reasons, including inadequate funding, poor infrastructure, low public awareness, insufficient analysis of the quality of services, and an inadequate monitoring and evaluation system.

In 1998, Tajikistan had a birth rate of 31.3%. Over the past ten years, it has decreased to 28%. At the beginning of 21st century, the population was 6,120.0 million; by 2009, it had increased to 7,373.8 million. At the same time, in 2009, with respect to the age structure of population, the proportion of children of 0-14 years of age decreased by 7.1% compared with 2009. More than 180,000 children in average are annually born in Tajikistan. Of these, approximately 10% of children are born with asphyxia and require emergency interventions immediately after birth. However, the quality of hospital care provided to children is a serious concern. The assessment of hospital services, conducted with WHO assistance in 2006 revealed the lack of necessary basic equipment in most hospitals of the country.

- Tajikistan today is among the more than 190 countries in the world that has ratified the Convention on the Rights of the Child.
- The issues related to protection of motherhood and childhood are reflected as priorities in the strategic documents: «National Development Strategy of the Republic of Tajikistan for the period up to 2015», Poverty Reduction Strategy – 2010-2012 «and the «National Strategy for Health of the Republic of Tajikistan for the period 2010–2020”.

There is no system for the regionalization of perinatal care services. With a sufficiently large number of children hospitals, their provided services are fragmented; overlapping each other. About 75% of children are hospitalized based on self-referral. Communication between different levels of hospital services is poor with no continuity of primary health care facilities and hospitals. A study on emergency obstetric care found that over 15% of maternity hospitals are not provided with clean water, and 18% of them have no source of constant power supply and heating.

In Tajikistan, the problems of malnutrition and micronutrient deficiencies (vitamins and trace elements) among mothers and children were and remain up to date. According to the National Research on Nutrition (2004), global acute malnutrition (GAM) and severe acute malnutrition (SAM) prevalence rates increased, compared with the previous year.

There is an inadequate interventions aimed at development of parental skills to improve not only growth and health, and but also psychosocial development and mental health of children and adolescents, which is also a cause of concern. Study conducted by the MoH and UNICEF (2005) indicated that 96.9% of parents have no proper skills to communicate with their children, 98% of interviewed families have no toys and books, and 70% of parents are not familiar with general signs of danger in their children.

Numerous monitoring findings show that there is no always precise control of births and deaths in young children. Not all deaths of children are registered. Frequently, deaths of live births are registered as stillborn, especially in home delivery cases. It has also been found that 13% of children under 3 years of age and 12% of children of 0-4 years of age have no birth certificates. Since 2003, in order to ensure international data comparability and identify the interventions aimed at reducing infant mortality in the country with support from USAID/SDC (CAR) and the UNICEF a pilot project (in Dushanbe and Sughd) has been launched to introduce criteria for live births, recommended by WHO. However, studies have shown that more than 75% of maternity hospitals do not follow the WHO recommendations in the accounting and reporting system.

Infant mortality rates are directly related to infectious diseases and conducted preventive measures. By the mid-1990s, in Tajikistan, there were outbreaks of such communicable diseases, which were considered eradicated or eliminated over the years. Failure of vaccination in early 1990 led to an epidemic outbreak of diphtheria in 1995; the number of cases increased from 0.3 cases per 100,000 population in 1992 to 77 in 1995. Other infectious diseases were registered that exacerbated the prevailing situation at that moment in health care (e.g. regular outbreaks of anthrax and brucellosis in cattle and humans, periodic outbreaks of a rare and often fatal diseases, such as Crimean-Congo fever).

With the adoption of the National Immunization Programme and the new Immunization Calendar in 1994, based on the principles of the expanded immunization programme, a new immunization system was formulated. With support from UNICEF and WHO, a mass immunization campaign was conducted against diphtheria, polio and measles. As a result, since 1996, the number of diphtheria cases declined, with 0.05 cases per 100,000 population in 2001 (WHO, 2009). Hepatitis B has been included in the list of National Immunization Programme for 2001–2010. With the support of the Global Alliance for Vaccines and Immunization (GAVI), vaccination against hepatitis B started in January 2002.

According to the administrative records, the routine immunization coverage rate of the under-one children was over 90% in 1999. However, a Multiple Indicator Cluster Survey (MICS, UNICEF/The State Committee on Statistics) indicated a lower rate. (According to MICS – 2005, this rate is 85.6%, and it differs from the officially reported rate of 94%).

Immunization coverage rate remains low owing to shortage of funds, low knowledge and understanding of health staff and parents, and persistent problems with the supply of refrigerators and adequately equipped transport facilities to maintain cold chain and ensure its uninterrupted operation. In spite of this, in September and October 2004, an effective national campaign against measles was carried out with a vaccination coverage rate of 97.7% of the eligible 2.96 million children (UNICEF, 2007a). The number of measles cases decreased to 0.03 in 2007 (WHO 2009b).

In the 1990s, Tajikistan undertook vigorous measures to eradicate polio that led to eradication of this communicable disease in Tajikistan. In June 2002, Tajikistan was recognized as a polio-free country. However, events of the last five months of 2010, associated with mass outbreaks of poliomyelitis due to wild virus of type-1, indicates an inadequate facilities and low knowledge of health workers, public ignorance of immunization issues, low immunization coverage, inadequate preventive interventions targeting the population, lack of continuity in the work of professionals in primary health care and hospital services, and the low performance of family doctors. As a result of the Government's concerned about the outbreaks of this type of polio, a mass immunization campaign against polio was urgently carried out. The implementation of urgent measures for mass immunization against polio with the support of international donors has allowed in a short time to achieve positive results.

Since November 2009, vaccination against measles and rubella (MR vaccine) has been introduced into the national immunization calendar. A strategy to eliminate measles and rubella and congenital rubella syndrome (CRS) consisting in vaccinating of women and girls of 15 to 29 years of age inclusively is planned to continue. The efforts to reduce child mortality from diarrheal diseases are being strengthened. The measures are being undertaken focusing on strengthening epidemiological surveillance of infections controlled by vaccine.

One of the problems of the health sector is helminthes. According to the sector statistics, more than 20 000 of helminth diseases are registered annually in the country; 80% of cases accounts for children under 15 years of age.

Due to the shortage of qualified parasitologists, infectious disease experts and laboratory specialists for helminthes detection and testing, and the lack of necessary equipment, medical care for this category of population is not at an adequate level, especially in rural areas.

In 2004-2005, In order to detect infection in the population, especially in children and adolescents, the Ministry of Health, with technical support from international organizations, conducted a study of children under 9 years of age. The results showed that 63% of children have one or two varieties of worms. In order to reduce the helminthes incidence in the country, de-worming is annually conducted among children of preschool and school age. A study, conducted in 2007 in two districts showed that de-worming interventions allowed to decrease parasitic disease incidence in pre-school children from 63 to 14.8%. The mortality rate of under-five children is a serious concern. Over the 1990–1996 period, it reached 43–47%. It is known that a survival rate of children under 5 years of age determines the health of the population in general. According to the MICS-2000 and MICS-2005, this indicator in Tajikistan was 126 and 70 per 1,000 live births, respectively. The Living Standard Survey 2007 reported a rate of 53 per 1,000 live births. The highest rate was 64 per 1,000 in Soghd region. The share of deaths from infectious diseases in the post-natal period amounted to 58.8%.

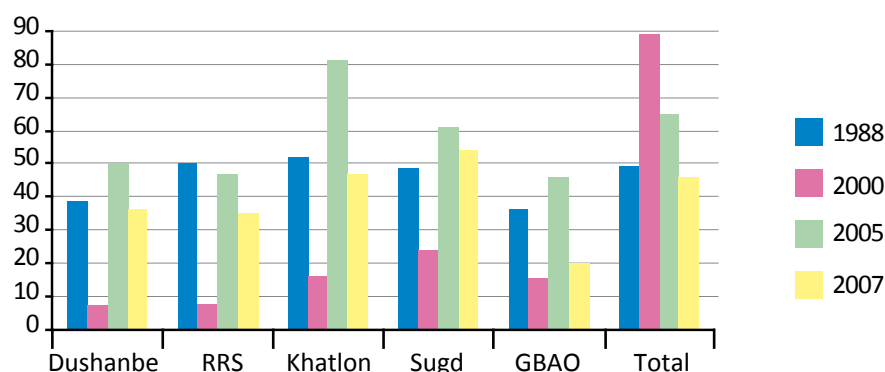
Childhood diseases, such as pneumonia, diarrhea, malaria, measles and malnutrition have caused more than 70% of infant mortality in children under 5 years of age.

According to official data, in 2008 the diarrhea incidence of children under 5 years was 11,982.7 per 100,000 children of appropriate age, and mortality was 0.25 per 1,000 patients.

In 2008, the incidence of acute respiratory infections was 31,385.6 per 100,000 children, and mortality, 0.68 per 1,000 patients.

Infant and child mortality rates in Tajikistan remains high, representing one of the main problems of the health sector and its partners. But in recent years, some progress has been made in this area. Regardless of the method of calculation, the overall child mortality rate has a clear downward trend, and the infant mortality rate tends to decline on a sustainable basis. The **infant mortality rate**, despite a sustained decline emerging in recent years, remains high. According to the Multiple Indicator Cluster Survey (MICS) – 2005, infant mortality fell to 65 per 1,000 live births (according to MICS-2000, it was 89 per 1,000 live births).

Figure 31. The indicators of infant mortality



Source: MICS-2005, 2008 and the Tajikistan Living Standard Survey 2007

Over 70% of infant deaths occur in the neonatal period and are associated with low birth weight and prematurity. The low birth weight incidence in infants in Tajikistan is high (15%),⁶⁸ and is due to maternal malnutrition, inadequate medical care during pregnancy, anemia caused by iron deficiency, infectious diseases during pregnancy. Infectious diseases and malnutrition are a major cause of infant mortality, and account for 58% and 42% respectively.

Child health problems in Tajikistan

The high infant mortality rate is caused by the following factors:

- Premature birth and low body weight that occurs in 15% of cases and is due to:
 - malnutrition in mothers;
 - inadequate medical care during pregnancy;
 - anemia caused by iron deficiency, and
 - Infectious diseases during pregnancy.
- Inadequate antenatal care, which consists of
 - Low awareness of pregnant women about danger signs of pregnancy;
 - Lack of midwives and obstetrician gynecologists in remote areas;

Infectious diseases (acute respiratory infections, including pneumonia, diarrhea);

Malnutrition (lack of awareness of mothers about the benefits of breastfeeding and late introduction of complementary foods; the use of low-calorie food, etc.).

68 UNICEF, Glance, Tajikistan, available at: www.unicef.org/infocountry/Tajikistan.hmt,



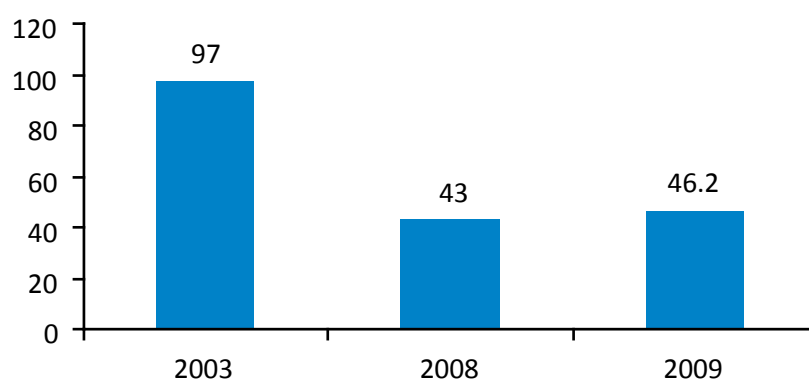
GOAL 5:
Improve maternal health



Indicator:

- *Maternal mortality ratio*
- *Proportion of births attended by skilled health personnel*

Figure 32. The progress of maternal mortality rate reduction (per 100,000 live-born)



Target 1. Reduce by three quarters, between 1990 and 2015 the maternal mortality ratio.

Indicators for progress monitoring:

- 5.1 Maternal mortality
- The established goal by 2015 – 70 per 100,000 live births.
- In fact, according to official data – 46.2 per 100,000 live births in 2009.
- 2008- 43.0 per 100,000 live births.
- 2003- 97.0 per 100, 000 live births.
- 5.2 Proportion of births attended by trained personnel
- The established goal in 2015 – 90%.
- Actual – 88.4% in 2008.

Source: The Ministry of Health of Tajikistan

Current situation and trends of maternal health

Key indicators:

- Population – 7,373,800 people, including:
 - % of the female population – 49%
 - Women's life expectancy – 74 years
 - Women of reproductive age – 27% of the total population
- Fertility – 3.2 (official data)
 - Maternal mortality: (Official data) – 46.2 per 100,000 population in 2009
 - Hemorrhage – 32%
 - Hypertensive disorders – 19.8%
 - Rupture of the uterus – 6.2%
 - Extra genital diseases – 23.4%
- Home delivery: (Official data) – 15% / other sources – 60%
- Abortion – 90.9 per 1,000 live births (Official data).

Improving maternal health is one of the important areas of public health and is closely connected with the status of the family, its material security, living conditions, and family relationships.

Underfunding of the health sector and the outflow of skilled personnel limited the access to quality health services at all levels of obstetrics services and have impact on maternal mortality.

REPRODUCTIVE HEALTH POLICY AND STRATEGY

- Law on Reproductive Health and Reproductive Rights
- Strategic Plan for Reproductive Health until 2014
- National Action Plan on Safe Motherhood from the period until 2014
- Program on ensuring access to safe abortion and quality post-abortion care by 2015
- State Program «Basic directions of state policy to ensure equal rights and opportunities between men and women in the Republic of Tajikistan»
- The concept of state demographic policy of the Republic of Tajikistan for 2003- 2015.

According to official statistics of the Ministry of Health, maternal mortality has decreased almost twofold between 1990 and 2005 (from 97.7 to 33.2 per 100,000 live births, respectively). In 2009, the figure was 46.2 per 100 000 live births. Current problems in the registration of maternal mortality, the high incidence of unsafe home births (40–60 percent) suggest that this figure is understated. According to MICS–2005, the maternal mortality rate declined to 97 deaths per 100,000 births.

The situation analysis in the country shows that maternal mortality is conditioned by poor quality of services in antenatal, delivery and postnatal care, the lack of a functioning referral system, the lack of means of transport, especially in rural areas, and inadequate access to emergency obstetric care (EOC). The leading factors are also regional disparities in human resource capacity, inadequate education and skills of health workers, combined with the lack of essential materials and equipment.

The high risk of maternal mortality is due to the lack of an acceptable referral system, inadequate education of women, gender inequality, and low awareness of families of danger signs of threatening the life of the mother and the child, as well as the reluctance to seek medical care.

In the structure of maternal mortality in the regions of the country, the leading causes are obstetric hemorrhage (32%), hypertensive disorders (19.8%), uterine rupture (6.2%) and extra genital diseases (23.4%). The vast majority of cases of maternal death in the presence of qualified personnel and the readiness of facilities to emergency obstetric care services are preventable or managed. In rural areas, the role of the community in women and children health protection issues is neglected. Community-based activities to provide information, knowledge and skills on the basics of health, maternal and child health are conducted by a few NGOs. In the area of improving maternal and child health, a weak integration of operations of health facilities with local jamoats is indicated.

In Tajikistan, according to official statistics, since 1990, antenatal surveillance has annually enrolled a fairly high percentage of pregnant women, from 80.0 to 85.0%. The situation analysis shows that the actual number of pregnant women and parturient is 15-20% higher than the official data, i.e. 30-40% of pregnant women are not actually covered by any antenatal care services and remain without a minimum set of services and medical examination. Studies conducted by the Ministry of Health indicate a low quality and quantity of antenatal surveillance and care services: only 70% of pregnant women receive prenatal counselling, the minimum required number of examinations are carried out on the minimal number of pregnant women. Thus, regular measurement of blood pressure and obstetric examinations are carried out in 60-85% of cases; blood grouping – in 17.2% cases; ferrous sulfate tablets are prescribed and taken only by 51% of respondents; and 30% of pregnant women, suffer from anemia among other diseases. It is not surprising that a third of newborn babies are already sick or ill, being in their infancy.

According to official statistics, more than 186,000 births are registered every year in Tajikistan. A major problem is still the high prevalence of home deliveries in some regions of the country. Home births are often carried out in unsafe conditions, without providing adequate medical assistance by medical staff, specially trained for emergency obstetric care. Sixty percent of women do not receive postnatal care and assistance in the first six weeks after birth. At the same time, deliveries are often managed poorly, which contributes to the development of severe obstetric complications, that is, states that require emergency care in a specialized hospital (uterine rupture, premature detachment of normally located placenta, hypotonic hemorrhage in the postpartum period, fetal and neonatal distress). In turn, these cases define high rates of maternal and infant mortality.

In providing medical care for mothers and children, inefficient high-cost technologies and poliprogrammiya are widely used, which exacerbate the economic condition of service providers and service users.

Despite the wide-ranging measures to improve reproductive health, the majority of parturients leave maternal hospitals, without having high-quality contraceptive services.

Effective perinatal technologies, de-medicalization, and family-oriented obstetrics are implemented with difficulty because of lack of legal instruments, equipment and trained personnel.

In 2005, in Tajikistan out from 1,288 obstetrician-gynecologists, 231 of them worked in maternity wards. The availability of obstetrician gynecologists varied depending on the region. The highest obstetrician/gynecologist-patient ratio of 6.9 is in Dushanbe and the lowest ratio of 0.8

is in Khatlon region, while the availability of obstetricians-gynecologists in the country is 1.9 per 10,000 population.

Tajikistan has an operational specialized structure of health and medical institutions at all levels of health care service system, designed to provide emergency obstetric care (EmOC). However, the quality of provided emergency obstetric care is low. The ratio of EOC is 5-6 per 500,000 population. The indicators characterizing the EmOC utilization are below the acceptable minimum level. The percentage of deliveries in EmOC facilities is 12.6% (by United Nations indicators – 15%). Meeting the needs of the EmOC services is 22.9%. Cesarean section from the total number of births in EmOC facilities is 2.6 percent. The low capacity of EmOC facilities to provide EmOC services is evidenced by a significant deficit of quality factors, making EmOC capable to deliver services (human resources, equipment, medications). Medical personnel providing EmOC have low skills. The number of health facilities that can provide EmOC services within seven days and 24 hours is 88 percent.

Tajikistan has made considerable progress in delivery management by trained personnel, although the gains vary from region to region. Further reduction in maternal mortality is complicated by low quality and effectiveness of perinatal preventive interventions and emergency care, and to a large extent, by still high poverty rates, malnutrition (widespread iodine deficiency and anemia) and the general poor state of maternal health. World Bank research (WB, 2003) found that population in Tajikistan uses the services of maternity homes, depending on their income: from poor groups of women, about 42% were seeking help at maternity homes compared with 52% of women from affluent families. With the gradual improvement of the socio-economic situation in the country and conformably quality of health services over the past five years, a downward trend in this indicator can be seen: from 42% in 2000 to 16.7% in 2007. In some areas of Tajikistan the proportion of home deliveries at times ranges from 60 to 80%.

Problems and risks in achieving the goals

Insufficient attention of the State and society to the recognition of the complexity of maternal and infant mortality and, consequently, little or no integration of socio-economic and cultural factors influencing the growth of these indicators lead to fragmented policy measures that are concentrated mostly in the health sector. However, the causes of infant and maternal mortality rates are conditioned by a set of economic, social and cultural factors, the public health status, the demographic structure, behavioral skills, etc. It is known that infant mortality is one of the most sensitive indicators that determine the level of poverty in any country and, more broadly, the level of socio-economic and human development.

Weak preventive measures, including educational work on the issues related to health of mothers and children, as well as contiguous matters, lack of criteria for referral system for pregnant women from primary to secondary and tertiary levels, the quality of emergency care and its delayed delivery along with weak family planning approach in rural areas is a concern and leads to an increase in these indices.

The most important risk is acute shortage of qualified medical personnel as a result of foreign labour migration and deteriorating infrastructure: dilapidated buildings and old communication equipment in maternity hospitals and other medical facilities.

The energy crisis, a sharp rise in prices of energy, and a systematic disconnection of electricity drastically affect the state of medical institutions and the quality of obstetric care, and increase morbidity.

Economic and food crises inevitably worsen the nutritional situation of women, rising prices led to deteriorated nutrition that affected anemia prevalence rate. Access to quality health services also depends on the solvency of the population.

Interventions for achieving MDGs 4 and 5

- Family planning
- Introduction of audit of maternal mortality and confidential investigation
- Strengthening emergency obstetric care
- Continued introduction of the initiative on effective perinatal care
- Gender equality (access to education, access to information, and informed choice)
- Raising public awareness on RH / community mobilization
- Applying intersectoral and multidisciplinary approach
- Raising religious clergy in matters of reproductive health
- Improving sexual and reproductive health of young people
- Reduction in abortions
- Improving quality of antenatal care.

Findings and recommendations:

- Continue the implementation of ongoing, and introduce new programmes in the country to improve awareness among mothers on child health, nutrition and care for sick children. This can have an impact on improving child development and the practice of seeking timely medical care, preventing late referrals, as well as excessive ungrounded treatment.
- Revise formal referral procedures, and update and approve the list of services to provide to on free-of-charge basis, and review policies ensuring meals provision for patients.
- Improve the oxygen supply in hospitals, such as the oxygen and concentrator flow meter, repair and make operational X-ray equipment, equipment for phototherapy; provide dispensers in certain wards.
- Urgently develop clinical standards, including diagnostics and treatment schemes, and evidence-based guidelines, particularly for children. Advanced medical cards should be introduced, which include monitoring schemes and are important for improving clinical management and the rational use of medicines and laboratory tests.
- Make the required changes in the process of auditing and monitoring the quality of clinical management based on evidence/based medicine.
- Improve continuity between primary health care facilities and hospital services, and between hospitals in the periphery and medical centres.
- In order to provide the appropriate recommendations and advice on the quality of hospital care, carry out accreditation/certification of all hospitals and public health education institutions. The training programmes prior to practice, continuing education should be aimed at introducing international standards and evidence-based protocols, starting with the adapted guidelines on integrated management of childhood illness (IMCI), referral guidelines and teaching materials.



GOAL 6:

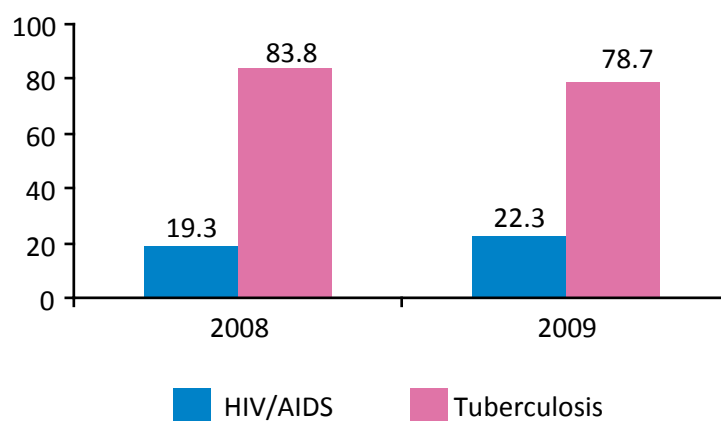
Combat HIV/AIDS, tuberculosis,
malaria and other diseases



Indicators:

- HIV prevalence among population aged 15
- Condom use at last high
- Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS
- Incidence and death rates associated with malaria
- Proportion of children under 5 sleeping under insecticide-treated bed nets
- Incidence, prevalence and death rates associated with tuberculosis
- Proportion of tuberculosis cases detected and cured under directly observed treatment short course

Figure 33. HIV/AIDS and TB morbidity trends (per 100,000 population)



Target 1. Have halted by 2015 and begun to reverse the spread of HIV / AIDS.

Progress monitoring indicators

6.1 Number of registered cases with HIV infection.

The established target – no more than 2500 cases

In 2009 – 2,204 persons

6.2 Percentage of 15- to 24-year-olds from the total number of HIV cases

The identified target - not more than 2,500

6.3 55.6% of PLHIV needing ARV therapy receive it on 1 January 2010.

(Established goal >50 of PLHIV needing ARV therapy, receive this therapy, UNGASS, 2009)

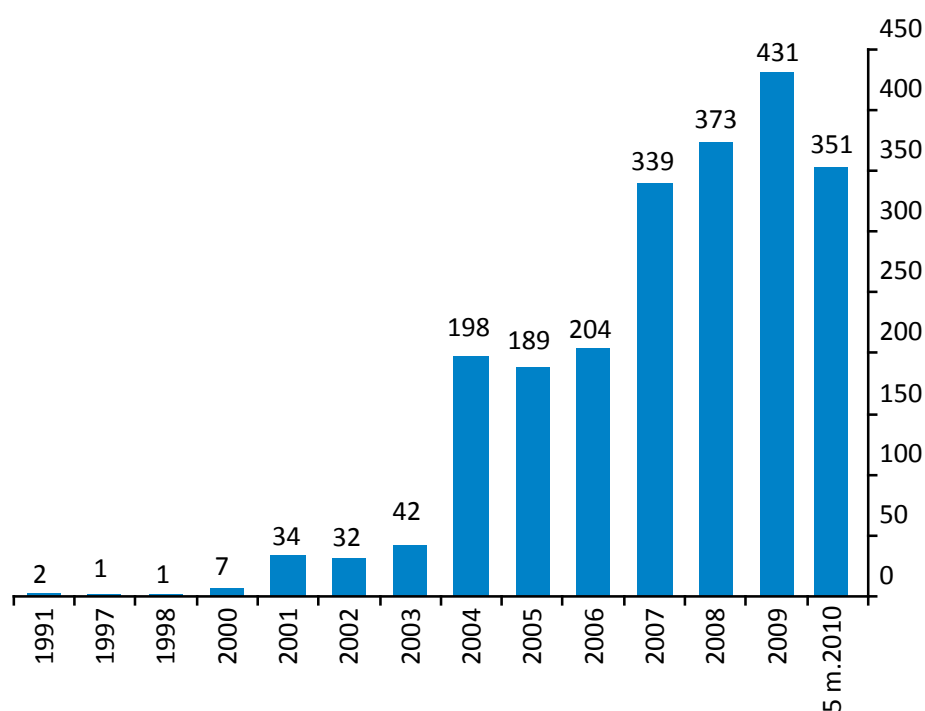
6.4 Prevalence of HIV among injecting drug users – 17.3% in 2009.

(The set goal should not exceed 20%)

Current situation and trends

In Tajikistan, the first cases of HIV infection were registered in 1991. Until 2003, these cases were single and of sporadic nature. Since 2003, the strengthened capacity of HIV/ AIDS service allowed much better diagnosing of HIV infection with many more new HIV +cases identified and registered. This is achieved primarily due to an increase in the number of centers for AIDS prevention and control throughout the country, improved access to voluntary counseling and testing, established laboratories, which contributed to an increase in the number of persons tested for HIV. The most prompt annual growth in the number of newly diagnosed HIV cases was in 2006-2009 and the first 5 months of 2010, which amounted to 1,698 cases (77%). In 2009, and for 5 months of 2010, the highest rates were recorded (431 and 351 cases, respectively). According to official data, as at 1 June 2010, 2,204 people were infected with HIV in the Tajikistan.

Figure 34: Registration of HIV infection cases in Tajikistan, 1991 to 1 July 2010 (N=2204)



The HIV prevalence rate in Tajikistan, according to registration as of 1 June 2010, is 26.6 per 100,000 population (19.3 in 2008 and 22.3 in 2009). According to an expert estimate, the true number of people living with HIV/AIDS in Tajikistan is currently about 10,000 people.

According to sentinel surveillance (SS) conducted in 2009 in eight regions, the country is on the second, the concentrated stage of HIV infection. For example, in 2009, the prevalence of HIV infection among injecting drug users (IDUs) was 17.3%, 2.7% among sex worker and 0.1% among pregnant women. HIV cases were reported in 60 out of 66 cities and districts of the country. The number of deaths from the total number of people living with HIV has reached 261 persons (11.8%). Among the HIV-infected, 79% of HIV cases are recorded for men and 21% for women; 96.4% of cases were registered among people of 15-49 years of age, of which 83.4% of 20-39 years of age and 1.9% of children under the age of 14 years. Moreover, in recent years, the proportion of registered cases of HIV infection in women has increased from 14.8% in 2005 to 20.6% in 2009, the vast majority of whom are infected through sexual intercourse.

The main cause of HIV transmission is still injection (to date, 54.3%), which, at this stage, is the driving force of the HIV epidemic in Tajikistan. However, the proportion of the HIV transmission through sexual intercourse is increasing (from 8% in 2004 to 28% as at 1 June 2010).

Transmission through injection is responsible for 55.2% of the total number of registered HIV cases, of which 54.3% are through drug injecting and 0.8% are through blood transfusions. Sexual transmission is registered in 28.1% of HIV recorded cases, vertical transmission is registered in 1.2% of HIV cases and the causes of HIV infection transmission is not clear for 16.6% of HIV+ cases.

The first case of HIV infection in pregnant woman was registered in Tajikistan in 2005, and currently (as of 1 June 2010), the total number of registered cases of HIV infection among pregnant women is 137 cases. In 2009 and the first five months 2010, 54 HIV positive cases were registered in pregnant women, of which 34 cases of HIV infection was detected during pregnancy and childbirth, while HIV infection of 20 women was diagnosed during an epidemiological investigation as a result of the detection of HIV in their children after more than 1 year after their births.

Achievements

In Tajikistan, ongoing monitoring of the HIV epidemic is carried out on the basis of epidemiological surveillance of reported HIV infection cases and sentinel surveillance (SS). SS of the second generation was introduced in 2005 in two sites. Currently, the surveillances (and sentinel groups) has expanded to 8 sites. According to recent SS, coverage of IDUs by HIV prevention programmes has increased from 16% in 2006 to 63.5% in 2008; SWs' HIV programme enrollment from 40% (2006) to 68% (2008). Coverage of PLWHA with antiretroviral therapy (ART) has doubled from 2006 to 2008. Action Plan for the integration of tuberculosis (TB) and HIV services is developed and HIV testing is available in TB treatment facilities.

According to official statistics, the coverage of HIV-infected pregnant women by ARV prophylaxis programmes to reduce the risk of mother-to-child HIV transmission from has two-fold increased only for 2008-2009. The Centre for Strategic Studies under the President of the Republic of Tajikistan (CSS) indicated that coverage of HIV testing increased threefold, from 2.04% in 2007 to 6.8% in 2008. Also, the UNGASS reports that for the 2007-2009 period, the number of tested persons increased from 93,791 (2007) and 148,255 (2008) to 210,179 (2009).

The Government of Tajikistan, in close cooperation with NGOs, has been implementing programmes aimed at enhancing universal access to HIV prevention among groups at highest risk and the general population, as well as programmes for treatment and care of the needy. To implement programmes on HIV/AIDS a substantial mobilization of resources has been done. In 2008-2009, in order to implement programmes on HIV prevention and treatment, Tajikistan spent approximately US\$10 million mostly from the grants of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), as well as several regional CAAP projects,⁶⁹ and projects supported at the country level by United Nations agencies, Open Society Institution (OSI), ADB, the Aga Khan Foundation and others. Moreover, the country application for Round 8 of the GFATM has been developed and approved by the GFATM in the total amount of US\$45 million for 2009-2014.

69 AIDS Control Project in Central Asia), CARHAP/DFID, CAPACIT USAID, UNODC/OPEC, AIDS Foundation East-West (AFEW).[I spelled out all the acronyms and they went back to the original

In order to monitor the implementation of the Declaration of Commitment on HIV/AIDS and improve the processes of national strategic financial planning, the assessment on national spending on HIV/AIDS (National AIDS Spending Assessment - NASA) for 2008 – 2009 was conducted in Tajikistan. National Spending on HIV / AIDS in the Republic of Tajikistan in 2008–2009 years includes:

- public sources of funding (funds from the republican and local budgets);
- external sources of funding (funds from international agencies, foundations and foreign institutions);
- some private expenditure (household expenditure on paid voluntary counseling and testing, purchase of donor blood and its components).

UNGASS Indicator 1

National and international spending on AIDS by components and sources of funding

2008	2009
Total: TJS21,215,768	Total: TJS31,082,064
including :	including:
public sources of funding: TJS 3,485,137;	public sources of funding: TJS 4,768,066;
international sources of funding: TJS 17,700,047;	international sources of funding: TJS 26,222,004;
private sources: TJS 30,584	private sources: TJS 91,994

Source: NASA– National spending on HIV/AIDS, Tajikistan, 2010.

Over the 2008–2009 period, preventive interventions were the highest priority for resource allocation to respond to HIV/AIDS in Tajikistan (47.5% in 2008 and 38.6% in 2009).

Programme management costs constitute the second largest items of expenditure in programme budgets (38.8% in 2008 and 40.9% in 2009) followed by the cost of treatment and care (6.6% in 2008 and 9.6% in 2009); 5.5% of the total funding from all sources in 2008 and 8.9% in 2009 were spent on promotional activities and development of the capacity of professionals working in the field of HIV/AIDS.

Policy and programmatic response to HIV/AIDS in Tajikistan

The multisectoral approach to the national response to the epidemic and the «Three Ones» are recognized at the country level. The National Coordination Committee (NCC) in Tajikistan was established in 1997, presided over by the Deputy Prime Minister of Tajikistan. In 2005, the model of the NCC to combat HIV/AIDS, tuberculosis and malaria was restructured and the NCC is a single coordinating body for HIV / AIDS. The structure of the NCC includes representatives from key ministries, international organizations and local NGOs, including PLWHA. In 2009, the participation of civil society (CO) has been doubled. In total, the NCC consists of 19 organizations, 6 of them represent a civil society. A religious leader of all Muslims, the Mufti of Tajikistan, also participates in the updated composition of the NCC.

In 2008, *the Law on Prevention of HIV/AIDS in the Republic of Tajikistan* was revised; an article on the deportation of foreign citizens due to having a HIV-positive status was exclusion from the new version of the Act.

In 2008, a procedure of medical examination to detect or test HIV infection, its accounting, medical examinations of HIV-positive persons and preventive surveillance based on the recommendations of WHO/UNAIDS to initiate testing and counselling by service providers in health facilities was updated. Mandatory testing of IDUs was excluded from the regulation on testing. Tajikistan introduces screening for HIV infection in health services combating tuberculosis, sexually transmitted infections, antenatal clinics and maternity/obstetric services in a gradual and phased manner in view of epidemiological data, identifying the needs and available resources.

The procedure on government monthly cash benefits entitlements for HIV-infected children under 16 years of age has been developed and approved by the Government.

During the reporting period, significant positive steps have been taken in the promotion and preparation for implementation of substitution therapy for IDUs. The need for introducing substitution therapy is recognized at the government level. The resources have been mobilized to initiate a pilot project with developed operational guidance on substitution therapy and pilot sites have been identified for the introduction of substitution therapy based on drug treatment agencies in the cities of Dushanbe, Khujand and Khorog. Steps have been taken for the purchase of necessary equipment, the delivery of adequate training and reconstruction of the pilot sites. In 2010, introduction of substitution therapy on a pilot basis started in Dushanbe city.

The National Programme on Combating HIV/AIDS in Tajikistan for the 2007–2010 period was developed following the principles of achieving universal access to HIV/AIDS prevention, treatment, care and support (20). In addition, goals on the achievement of universal access have been developed and incorporated into this programme. HIV problems are underlined as priorities in at least three areas of programme interventions (health, education, social security). HIV/AIDS issues are integrated into the PRS for the 2010-2012 period based on the multisectoral approach and in the United Nations Development Framework Programme to Tajikistan for 2010-2015 to assist in achieving the MDG targets.

Prevention programmes have been implemented on a wide scale for the population groups who are most vulnerable to HIV infection (IDUs, SWs, MSM), as well as other risk groups (prisoners, migrants, street children, women, military personnel and others).

Difficulties and risks in achieving MDGs

The major difficult to stop the spread of HIV/AIDS is a tendency of disease transfer from specific vulnerable/high risk groups, drug injections (IDUs) and MSM, to women and their born children. Continued concerted efforts are still unable to stop the HIV infection. Large-scale external labour migration also negatively contributes to the situation with HIV/AIDS in the country.

In a broad discussion among key stakeholders, representing various sectors, the following obstacles in achieving universal access to prevention, treatment, care and support have been identified:

1. Most of the HIV/AIDS programmes are financed from external sources because of economic difficulties faced by Tajikistan. The national budget currently does not allow for procuring test systems, medicines, equipment or supporting many programmes on HIV/AIDS. Currently, due to mobilized resources, the initial implementation of GFATM Round 8, [and?] ongoing introduction of some regional projects, it is confirmed that approximately US\$14 million will be disbursed and available for the HIV/AIDS programmes until the end of 2010, mainly from the GFATM and regional projects. Imple-

mentation of some regional projects will be completed by the end of 2010, while, other regional projects will be initiated (USAID, German Technical Cooperation). Currently, no external funding is expected to decrease until the end of 2010, but the impact of the global financial crisis could affect future external funding of the programmes. The conditions associated with economic hardship in the country and global financial crisis cannot guarantee the increased state budget allocations for the HIV/AIDS programmes.

2. Some of the strategies and policies should be updated in accordance with international standards and adapted to the Tajikistan context and conditions.
3. Coverage of vulnerable groups with prevention programmes is expanding slowly, due to their difficulties of access to them and stigma and discrimination against them.
4. Despite significant progress made in Tajikistan in pushing the substitution therapy, still it has not yet been introduced at the country, which limits the preventive health services and affects their coverage and ART treatment compliance and adherence of IDUs.
5. One of the challenges is the lack of professionals working with vulnerable groups, both in the public sector and in non-government organizations, and their inappropriate qualifications for implementing innovative programmes in the area of HIV/AIDS prevention.
6. Despite the urgent need, the process of integrating HIV/AIDS prevention and treatment programmes in the general health care system had just started.
7. There still remains a high risk of duplication of activities related to uncoordinated actions of different partners in planning, funding and reporting.
8. Multisectoral approaches for addressing HIV/AIDS should be strengthened, as well as their integration in order to resolve common health problems, poverty, gender and human rights issues.

All of these factors exist in parallel with low level of knowledge of HIV/ AIDS and high stigma and discrimination in society towards PLWHA.

Target 2. Have halted and begun to reverse, by 2015, the incidence of malaria and other diseases and reduce morbidity rates.

Tuberculosis

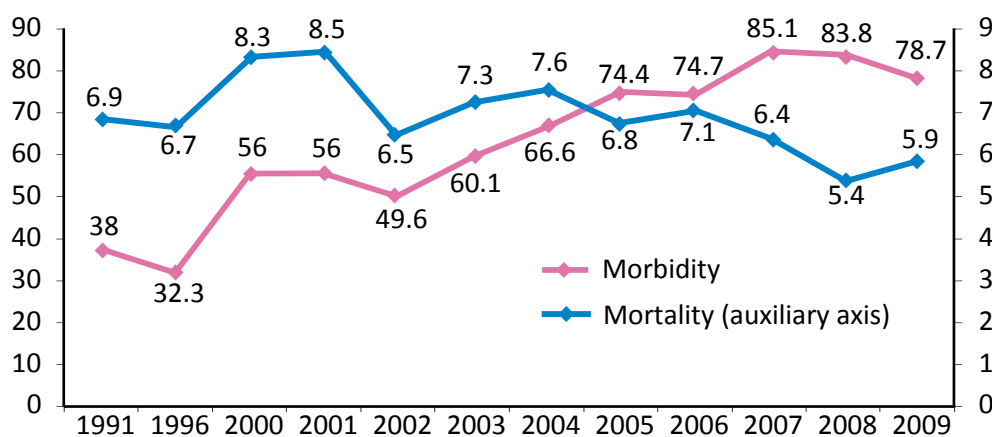
Current situation and trends

The situation related with tuberculosis due to a decline in living standards of the population, active internal and external migration, and the presence of high levels of drug-resistant forms of the disease, is one of the most pressing health problems in the country. The country adopted the third national programme to protect the population from tuberculosis for 2010-2015 aiming at further reducing morbidity and mortality from tuberculosis among the population, to stabilize the epidemiological situation and provide full control of infection throughout the country.

Despite the considerable efforts made in the fight against tuberculosis, to date the situation of TB in the country remains troubled. The most problematic situation is in prisons, where the TB incidence and mortality rates are 15 times and 30 times higher, respectively than in the civilian sector.

The TB morbidity in 2009 was 78.7 per 100,000 population (83.8 in 2008) and 1,200.0 in the penitentiary sector (in 2008 – 1270.0). In 2008, the number of infected women and men was 68.3 and 99.2 per 100,000 population, respectively.

Figure 35. The trend of TB morbidity and mortality in Tajikistan (per 100,000 population)



In addition, a trend towards a reduction in TB mortality is seen at the community level. In 2009, the death rate from tuberculosis was 5.9 cases per 100,000 population, which is one-quarter less than in 2004. Analysis of the patients who died from TB revealed that, in 2009, out of the total number of deaths due to TB, 35% were newly diagnosed patients, 51.4% were recurrent TB patients who suffered from drug-resistant form of tuberculosis, 2.4% were co-infected with HIV, and the remainder 11.2% were TB patients who died from other causes (heart attack, diabetes, acute and chronic cardiovascular and pulmonary diseases).

High TB morbidity and mortality rates are recorded in Kulyab zone and in some areas of Kurgan area of Khatlon region, Matcha district in Sughd province, city Khorog and Rushan district of GBAO, due to inadequate resolving of social problems, inadequate prevention measures, lack of timely examinations of contact persons. Based on the current situation, the new National Programme for TB Control for 2010–2015 envisages additional interventions for epidemiological disadvantaged areas of Tajikistan.

In addition, there is an increase of tuberculosis among migrant workers. In 2007, out of the newly diagnosed TB patients, migrants constituted 10.4%; in 2009 they accounted for 17.9% and surpassed the main risk «contact» group (10.2%). To address this issue, some activities are being implemented within EvroAzEC (a prepared package of documents on mutual recognition of medical evidence on the health status of migrant workers and accessibility to health services). The law on external labour migration is also currently under development, which will make it possible to resolve the problems of labour migrants and improve their accessibility to medical services.

Since 2007, in Tajikistan, the TB morbidity and mortality rates have tended to decrease. As a result of TB control activities outlined by the national programmes and implementation of DOTS strategy in all regions of the country, the quality of diagnosis and treatment of tuberculosis patients have improved. However, WHO data indicate that the rate of detection of new cases of smear-positive TB was 33% in 2006 and 32% in 2007 (WHO reports for 2008 and 2009), which is over 2 times below the goal set in the National TB Programme (70%). Therefore, it is

necessary to consolidate all efforts to improve the detection of TB patients with smear-positive, which is the main source of the infection.

One of the most pressing problems is the presence of multi-drug resistance tuberculosis (MDR-TB), which requires many months of continuous treatment. According to the reference laboratory of the National Centre for TB Control, in 2009, the prevalence rate of primary drug resistance of *Mycobacterium tuberculosis* was 17.9% of new TB cases and 57.6% of recurrent TB patients.

In order to improve the detection rate of tuberculosis cases throughout the country of the country, more than 80 laboratories for the microscopic sputum examination and a bacteriological laboratory in Sughd region have been established. National Reference Laboratory in Dushanbe is successfully functioning. In 2009, this laboratory was certified by the supranational laboratory of Gauting city (Germany), which made it possible to carry out bacteriological tests and tests for sensitivity to anti-TB drugs.

From the second half of 2009, treatment of a cohort of patients with MDR-TB has initiated on the pilot level. For this purpose, a necessary legal framework has been prepared with all the conditions for MDR-TB case management based on the Republican Clinical Tuberculosis Hospital. In addition, in view of infection control, a decision was made for outpatient monitoring of treatment of MDR-TB patients. During the 2010 year, the scope of screening and treatment of MDR-TB patients was expanded in two sites as well as in prisons, which will ensure accessibility of treatment of 400 patients with MDR-TB by the end of 2010.

Some reduction in TB incidence has been observed in the penitentiary system due to its reform, and openness to cooperation with international organizations, improved living conditions and nutrition of prisoners with tuberculosis.

Given that in Tajikistan, respiratory diseases dominate in the morbidity pattern, which creates unfavourable conditions in the context of the high epidemiological situation of tuberculosis, the new National Programme on Public Protection from Tuberculosis for 2010–2015 has provided for implementation of the strategy on standard management of patients with pulmonary pathology (PAL) in 2010. This approach consists in increasing the qualifications of all doctors of primary health care network in the area of prevention, diagnosis and treatment of major respiratory diseases and equipping all primary health care facilities with minimum necessary equipment, providing essential drugs, and improving the registration and reporting system. The PAL strategy focuses on improving the management of patients with pulmonary pathology, their early diagnosis and proper treatment, including tuberculosis patients at the primary health care level. In order to detect TB in children in all regions, tuberculin diagnostics and X-ray examination are scheduled.

Concerning the increasing prevalence of HIV infection in the country increases the risk of increased number of TB/HIV co-infected patients. As a result, today, 209 TB/HIV cases have already been reported⁷⁰(reported by Republican Center of HIV/AIDS).

Problems and risks in achieving the MDG

The critical epidemiological situation in the prison system severely worsens the situation of TB, where the morbidity and mortality rates are ten times higher than the average national rates. (For example, in 2009, in the penitentiary system of the Ministry of Justice of Tajikistan, 1,200 TB cases per 100,000 prisoners were found, i.e. 15 times higher than nationwide figures.)

Risk factors of infection of tuberculosis include the conditions in detention facilities and prisons with crowding, poor nutrition and limited access to health care that all contribute to an increase in TB incidence. Another problem is the shortage of medical personnel in TB services, particu-

⁷⁰ National AIDS Centre data.

larly in the penitentiary system. Analysis of reported cases of tuberculosis in 2009 shows that 75.7% of TB patients in the civilian sector and 90.2% of patients in the prison sector are identified as being in the later stages of the disease.

In addition, the serious problem is posed by multi-drug resistance and progressive HIV/ TB. The interventions carried out by ministries, departments and public administrations on the ground do not meet modern requirements. The required control over the national program is not in place.

The main sources of funding TB services are external financing and public funds, in particular the Global Fund, USAID, German Development Bank (KfW), WHO, the Red Crescent Society of Tajikistan (RCST), Foundation Caritas Luxembourg, the AIDS Foundation East West, World Food Programme and the Swiss Development Agency (SDC). Thus, the percentage of public expenditure and external funding on TB services was over 55% and 44%, respectively. According to the respondents, more than 40% of public funding is spent on salaries, about 22% on food, about 14% on medicines and about 20% on infrastructure maintenance. Most of the drugs and equipment are purchased with funds of international organizations. In the global financial crisis conditions, the termination of external support may lead to a deterioration of the epidemiological situation of tuberculosis and HIV-related conditions

Malaria

Current situation and trend

In Tajikistan, malaria reached its peak in 1997 with about 30,000 registered cases. The deteriorating situation in the 1990s was associated with socio-political changes in the country, and as a result of massive population displacement through the area where malaria was endemic (in Afghanistan), disrupted public health services and a complete cessation of anti-malaria activities. In recent years, significant changes have been made in agricultural practices, such as expanding the area of rice cultivation, which has led to a substantial increase in breeding sites of malaria vectors.

Given the complex epidemiological situation in early 2000s, based on the the Tashkent Declaration «Forward from malaria control to elimination» signed by Tajikistan in October 2005, which underlined its political commitment to the elimination of malaria, the Government adopted a «Programme to combat tropical diseases (malaria) in the Republic of Tajikistan for 2006-2010».

In the course of its implementation, the interventions have been implemented, aimed at reducing malaria morbidity, its containing within the country and preventing the restoration of transmission in areas where malaria had been eliminated earlier. As a result of events:

- the necessary regulatory and legislative documents have been developed and adopted;
- full logistical base has been established for planning anti-malaria activities, including the malaria budget;
- appropriate personnel were trained, thereby strengthening human resources;
- medical preventive services have been strengthened, especially in early diagnosis and adequate treatment;
- mechanisms have been established for early detection, rapid response to epidemic outbreaks and prevention of non-standard situations associated with malaria;
- the system for malaria epidemiological surveillance has been strengthened;
- an entomological component of the malaria epidemiological surveillance has been created and developed;

- scientific and practical research has been conducted on the characteristics of the malaria epidemiology in Tajikistan, the drug resistance of tropical malaria agents, the specific genetic structure of malaria parasites and malaria vectors in the country, resistance of the main agent of malaria in the country, *Anopheles superpictus*, to applied insecticides; in addition, laboratory and field tests of the traditional (*Gambusia affinis*) and prospective (*Poecilia reticulata*) fish-larvifag, assessment and evaluation system development, etc;
- a system of monitoring and evaluation of interventions has been established;
- outreach and educational public activities has been strengthened;
- intersectoral collaboration has been improved between relevant ministries and departments;
- cross-border cooperation has been further developed.

The main sources of funding of this programme are the Government of Tajikistan, WHO and GFATM. To coordinate these activities at the national level, the National Coordinating Committee to Combat AIDS, Tuberculosis and Malaria (NCC) has been established and is effectively operational.

WHO has provided scientific and technical support in planning, implementation and evaluation of anti-malaria control interventions.

As a result of these interventions, the situation with malaria in Tajikistan has considerably improved in recent years. In the malaria-affected 60 districts (out of the 65 districts) of the Republic, by 2009 in 31 districts, only 165 cases of malaria were registered, i.e. morbidity dropped by nearly 160 times. Almost 70% of all malaria cases were reported in Khatlon region, in the centrally administered districts (27%) and single cases in GBAO and Sughd province (3%).

However, the epidemic situation remains tense, as evidenced by the emergence of new malaria foci, the resumption of malaria local transfer to the previously malaria-dormant sites, and the persistence of cases of the tropical malaria form (*P.falciparum*). In the 1998–2002 period, their number increased from 187 to more than 800 cases. The malaria detection rate has become higher due to the improved quality of laboratory diagnostics, active identification and screening of the population in malaria-prone areas.

Intensive malaria vector control in the implementation of the programme to combat tropical diseases (malaria) in Tajikistan for 2006–2010 has led to a sharp reduction in its incidence and a 8.1 times decline in the number of cases caused by three-day malaria (*P.vivax*) in 2009, respectively, totalling 165 registered cases of malaria (*P.vivax* and *P.falciparum*), which was 87.7% compared with 2006. In 2009, only one imported case of tropical malaria was registered.

The major factors negatively affecting the malarial situation and achieving the MDGs in Tajikistan are the growing intensity of malaria transmission in areas adjacent to the Afghan-Tajik border, inadequate access of the population to quality primary health care, lack of insecticides and a limited amount of anti-larval activities. In addition to this, there is a lack of information about malaria situation in Afghanistan.

Local transmission, mostly of three-day malaria, continues to be registered in 31 districts of Tajikistan, including the city of Dushanbe. Moreover, almost everywhere the cases of malaria are observed to be brought due to the intense internal migration

The regions where malaria remains a serious health problem are Khatlon region, Dushanbe and the Districts/Rayons of Republican Subordination (Vahdat, Rudaki, Tursunzade). Despite the decline in malaria incidence and morbidity in these sites, these areas have steadfast centres, together with new active foci appeared. In addition, several areas of southern Tajikistan border

with malaria-disadvantaged Afghanistan. In Sughd (Isfara, Pedzhikent) in the centrally administered districts (Shahrinav, Nurobod, Tavildara) and the border Gorno-Badakhshan Autonomous Oblast (Vanch, Darvaz, Rushan), in some parts of central Tajikistan (Hissar, Faizabad Rogun) local and sporadic cases of malaria transmission is annually registered with high risk exposure to resumption of its epidemic outbreaks.

The main factor for the spread of malaria in the country, as in previous years, may be migratory processes and its import from neighbouring Afghanistan, where every year a significant number of malaria cases are registered, including its tropical form. At present, in connection with the search for income by the population, importation of malaria tends to increase in district centre and cities, where the risk of local transmission is lower than in rural areas.

Commitments to eliminate indigenous cases of malaria within the context of a substantial reduction in the number of malaria cases in Tajikistan are the rationale for the revision of the National Malaria Programme. The National Malaria Programme has been updated based on the following achievement principles:

- the capacity on elimination of the residual foci of malaria transmission throughout the territory of Tajikistan, as proven in the past;
- the apparent success in reducing the incidence of tropical and three-day malaria in recent years;
- strong political support for the campaign to eliminate malaria;
- available effective technologies, approaches and tools to eliminate malaria in the country;
- willingness to strengthen cooperation in the elimination of malaria with all neighboring countries.

The overall goal of the proposed programme on combating malaria is consistent with WHO/EUROPE regional strategy for malaria elimination and the MDGs, namely to halt the spread of indigenous cases of malaria by 2015 and reverse the trend of malaria as well as other major diseases. The ultimate goal of this programme is the interruption of local transmission of malaria and its subsequent elimination. Particular attention will be paid to the maintenance of the status of territories as malaria-free zones. Also, emphasis will be placed on addressing the growing problems associated with imported malaria.

The goals are based on proven epidemiological facts, such as the ways and the frequency of cycles of disease transmission, and the obvious results-based activities. Given the unequal distribution of malaria throughout the country, the highest priority target areas have been identified – these are 41 districts of Tajikistan with high and moderate risk exposure to malaria transmission – with a view to maximizing the impact of an optimal and/or rational use of resources.

Improved surveillance systems and monitoring services for the diagnosis and treatment of disease in this programme will have a significant impact on the correct diagnosis and effective treatment, as well as in response to the epidemic. There will also be a significantly reduced disease burden, transmission and mortality from malaria. Vector control interventions have brought effective results in the prevention of malaria in Tajikistan. The proposed programme will focus on integrated activities on vector\strain control, including measures for environmental management. Awareness raising for changing behavioural pattern is considered an important engine of change in the malaria situation, because it obliges people to make informed decisions and take responsibility for the effectiveness of interventions. This activity is aimed both at increasing awareness and changing the behaviour of the population. Moreover, this program will focus on and encourage the involvement of local communities in order to eliminate malaria through the coordination of meetings, as well as support for their involvement in the fight against malaria.

The expected outcome of the impact of preventive measures on the target population is the sharp decline in malaria cases by reducing the number of malaria foci, identifying patients, parasite agents and vector control. As part of this programme, the focus will be reducing the number of malaria foci, but not malaria cases. The programme's implementation strategy will strengthen the joint multi-sectoral response to the elimination of malaria by integrating services and pooling resources (such as establishing the national advisory board and task force on combating malaria).

An indicator of effectiveness is the frequency of malaria in targeted areas, which reflects the efficiency of preventive measures and increased public awareness of malaria, and demonstrated behavioural change by the target population, reflecting the acceptability and effectiveness of interventions.

It is considered that MDGs 4, 5 and 6 in Tajikistan are the most difficult to meet. The MDGs progress indicators for health in Tajikistan continue to be the lowest in the WHO European Region and the CIS. The infant mortality rate (IMR), the mortality rate of children under 5 years of age and the maternal mortality rate (MMR) are higher than in neighbouring countries.

In the past few years, infant and child mortality rates have been steadily declining. The multi-indicator cluster survey-2005 shows that the infant mortality rate declined from 89 per 1,000 live births in 2000 to 65 per 1,000 live births in 2005. According to government data, in 2007 there was a further decline in this rate to 56. A similar decrease was in the mortality rate of children under 5 years: from 126 per 1000 live births in 2000 to 79 in 2005 (UNICEF, 2007) and to 68 in 2007 (government statistics). The rate of improvement is significant and, if it continues, the MDG 4 (reduction by two-thirds of mortality of under five year's children) can be achieved. However, very high absolute figures, serious difficulties in the health care system, compound socio-economic conditions and, in particular, poor nutritional status makes the achievement of MDG 4 (reducing by three quarters maternal mortality) rather problematic.

Tajikistan will be experiencing major difficulties in achieving MDG 6. Though the significant progress has been made in malaria prevention, but there are still serious problems with TB and HIV/AIDS. Making progress on MDG 6 is constrained by inadequate access to basic health services and requires large investments in the fight against diseases.

Brucellosis was registered in Tajikistan in 1990s and poses a serious threat because of the low awareness about this disease. The number of cases reached 938 in 2008 compared with 212 in 1998. Typhoid is also a matter of concern. After the epidemic in 1996 with 12,000 cases, still there is significant threat of disease outbreak given the 4,410 cases reported in 2008.

The Government has taken steps to review the current system and is searching for alternative approaches to address the problems to achieve the MDGs in the health sector by 2015. The Government continuously increases spending on the health sector. However, with so many pressing problems in the sector, the Government is unable to meet the financial requirements for disease control and epidemiological surveillance. To prevent the advance of diseases in Tajikistan, it is imperative to improve the epidemiological service, raise public awareness and focus on preventive measures.

Under the assessment of needs for achieving MDGs made in 2005, the cost of meeting MDGs in health sector within the period until 2015 is estimated at around US\$3.6 billion, or on average US\$42 per capita a year.

Findings and recommendations:

- Continued financial support must be provided for national response to HIV/AIDS, with scaling up interventions to contain the epidemic. This will be included in the new cycle of the National Programme for the 2011–2015 period and in the National TB Combating Programme by 2015 to achieve the MDGs.
- The needs for technical assistance (TA) in the country must be assessed and a TA plan developed in key areas, in particular, child and mother health care and vaccine preventable infections;
- International expertise should be provided to develop standards, policies, strategies and guidelines and to provide support in adapting international best practices at the country level..
- Support should be provided for resource mobilization, prioritization of programme interventions and to estimate their cost-effectiveness in the context of the global financial crisis.
- Technical and financial support must be provided to strengthen the monitoring and evaluation system and to improve accessibility of sound strategic information for planning and programme management, and mortality tracking/monitoring based on the current situation.
- National capacity must be strengthened in response to the epidemic, including expanding training for programme implementers.
- Provision of international expertise and support its adaptation for scaling up program interventions and involvement of civil society.

Currently, the Ministry of Health is drafting the "Programme for prevention of malaria local cases in the Republic of Tajikistan for the 2011–2015 period".

The proposed programme is aimed at reducing the local transmission of malaria to one case per 100,000 population in the Tajikistan by 2015 and achieving sustained epidemiological well-being.

The malaria prevention strategy is based on the following tasks:

- interrupting local transmission of tropical malaria in the country by 2012 and its subsequent elimination;
- lowering the local transmission of three-day malaria to one case per 100,000 population in the country by 2015 and its subsequent elimination;
- preventing restoration of malaria transmission in areas of the country, where it was eliminated earlier;
- preventing deaths due to imported malaria.

In August 2010, the Government of Tajikistan approved the National Strategy Health of the Republic of Tajikistan for the 2010–2020 period, where the solution of health problems are integrally related to the activities to achieve the MDGs.



GOAL 7:
Ensure environmental
sustainability





Indicators:

- *Proportion of land area covered by forest*
- *CO₂ emissions, total, per capita and per \$1 GDP (PPP)*
- *Consumption of ozone-depleting substances*
- *Proportion of population using an improved drinking water source*
- *Proportion of population using an improved sanitation facility*

Target 1. Integrate the principles of sustainable development into country policies and programmes and reverse loss of environmental resources


Tajikistan joined the United Nations Framework Convention on Climate Change in 1998 and ratified the Kyoto Protocol on 21 October, 2008.

- In 2003, The Government of Tajikistan approved the National Action Plan to mitigate climate change
- In 2002, the Republic of Tajikistan prepared the first National Communication to the United Nations Framework Convention on Climate Change (first phase) and in 2003, produced the second phase of the First National Communication on strengthening capacity in priority areas of the economy.
- In 2008, the Republic of Tajikistan prepared the second National Communication for the United Nations Framework Convention on Climate Change.
- In 2007, the Government approved the programme on the rehabilitation of hydro-meteorological stations for the 2007–2016 period.
- In 2010, the Government endorsed the State programme on the study and preservation of glaciers in Tajikistan.

Currently, Tajikistan has just begun searching for improved mechanisms for an integrated approach to solving the problems of socio-economic development, taking into account the environmental issues.

Cross-sectoral mechanisms for integrating environmental policies into the broader concept of sustainable development are to be developed. There is a need to estimate the impact of environmental factors on the projected public expenditure, improving sectoral and inter-sectoral target indicators in environmental protection, promoting the use and development of optimal methods of production and implementation of Clean Development Mechanism, establishment of monitoring systems for long-term outcomes in all aspects of environmental protection and natural resource management.

To achieve this, a regulatory framework requires improvement in order to address environmental factors as one of the most important issues in assessing sustainable development sectors of the economy and in society in general.



The solution of environmental issues in the country is of growing importance. Currently, out of the nine ratified environmental conventions, the five strategies and action plans to implement them were developed; public expenditures for address environmental issues are increasing with greatly increased international donor assistance.

Among the Central Asian countries, emissions of greenhouse gases (GHG) in Tajikistan overall is only 2-3 % and are the lowest in the region. This is explained by the fact that 98% of electricity in Tajikistan is produced by hydropower stations (HPS). Even if in the future the Dushanbe and Yavan thermal power plants (TPP) were commissioned and operational, GHG emissions would not exceed 5% of total generated electricity.

GHG emission per capita in the country are almost five times lower than the average in the world, at about 30 kg / year per capita. The main sources of GHG emissions of the economy are in the following sectors: agriculture (livestock and fertilizer use); energy (combustion of fossil fuels) and industry (production of primary aluminum).

According to the 2nd National Report/Communication of Tajikistan to the United Nations Framework Convention on Climate Change in 2008, the largest amount of GHG emissions were recorded in 1990, at 25,543 Gg (more than 25 million tonnes) of CO₂ equivalent. The lowest emissions were registered in 2000, at 7,396 Gg.; taking into account absorption, they amounted to 5518 Gg. The greatest reduction of GHG emissions was in the energy sector, from 17 to 2.5 million tonnes; the lowest, in agriculture, from 5 to 4.3 million tonnes. Since there has been some economic growth in the country, and an increase in transport facilities and transportation, GHG emissions are increasing as a whole. To date, GHG emissions account for 35-40% of this indicator in 1990.

In overall GHG emissions, CO₂ prevails, making the major contribution – 69% (1990) and 34% (2000), followed by methane – 14% (1990) and 32% (2000), nitrous oxide – 12% (1990) and 25% (2000), and perfluorocarbon – 4 % (1990) and 8% (2000).

For upgrading technological processes, including those in lowering the levels of GHG emissions in a number of industrial enterprises in Tajikistan, a phased transition to more advanced manufacturing technology is carried out. At the Tajik aluminum company, the measures have been also implemented for rehabilitating aspiration systems, replacing flues for gas cleaning scrubbers, and improving sealing of electrolytic tanks.

For promotion and development of renewable energy sources and energy efficiency technologies, the Government of the Tajikistan adopted:

- Tajik Law «On Energy Conservation» (2002);
- Tajik Law «On alternative sources of energy», (2009);
- “Target complex programmes on the use of renewable energy sources, such as the energy of small rivers, sun, wind, biomass, energy of groundwater springs for 2007–2015” (2007);
- Long-term Programme for the construction of small power plants for the 2009–2020 period (2009);
- On the establishment of authority and the Interagency Council for implementation of Clean Development Mechanism (CDM) projects in the Republic of Tajikistan. Approved. by Resolution of the Government of Tajikistan (2009);
- the procedure of selection and approval of CDM projects in Tajikistan. Approved by Resolution of the Government of Tajikistan (2009).

Under the provisions of the Kyoto Protocol, Tajikistan has the opportunity to implement projects on the Clean Development Mechanism (CDM). One of the main objectives of the CDM is to attract investments aimed at reducing GHG emissions, promoting the rational use of natural resources, and improving ecological and socio-economic situation. For Tajikistan, the highest priority projects under the CDM include:

- improving energy efficiency in housing and communal services sector;
- developing of renewable energy sources;
- shifting to cleaner fuels;
- improving the transport system efficiency;
- improving agricultural practices and utilization of organic waste;
- forest renewal.

Organizational issues related to the preparation and implementation of CDM projects are assigned to the Ministry of Energy and Industry.

The lack of adequate coordination of works and a permanent body has not allowed to date to develop effective mechanisms for development in sectors with opportunities of the capacity for investment under the CDM.

However, one of the most remarkable achievements in the use of CDM opportunities was the signing in 2009 of the protocol on environmental protection, labour protection and industrial safety between companies of the State Unitary Enterprise TALKO, one of the largest enterprises in Tajikistan in the production of aluminum, and Norwegian Hydro Aluminium. One of the aims of this project is the modernization of gas cleaning installations in TALKO. The project will make it possible to reduce emissions of pollutants into the air and to make a gradual transition to international norms and standards in this area.

The automobile fleet of Tajikistan has been steadily increasing and now is over 300,000 units. The total gross emission⁷¹ of pollutants by vehicles in the atmosphere is 43.5% of total emissions, from which over 90% of pollutants come from motor vehicles.

Most of the vehicles are certified for compliance with United Nations/ECE Regulations (No. 15-04, 83-02A and 49-01), valid in Europe until 1992.

Most «old» (20 years and over), but a very significant part of the park (about 10%) have not undergone environmental certification in the modern understanding of this procedure.

Cars with catalytic converters (the level of the Euro-1 and above) come to the Tajik market in small quantities. But the high ecological characteristics of these cars quickly deteriorates (or becomes lost) due to the lack of an effective system of control of their operation, because no legal framework of control and regulatory requirements for such vehicles has been established and there is shortage of modern instruments for environmental control.

The lack of environmental regulations and legal acts to regulate the import of road transport in Tajikistan makes risks in increasing the volume of their emissions and the problem of disposing of the old car fleet.

For improving the ecological situation in the transport sector, under the state target programme «Development of the transport complex of the Republic of Tajikistan for 2010–2025», the amount of investments that should be attracted is expected at US\$32 million.

71 Data of the Ministry of Transport and Communication, 2009.

The energy resources of Tajikistan are relatively safe and ecologically friendly. Its basis is formed by renewable, environmentally friendly hydro resources, whose stocks are many times higher than domestic demand.

Given that the current energy system is currently mainly based on hydropower, and the use of coal and petroleum products, there is no threat in terms of negative environmental impact in the coming decades.

Tajikistan has a high potential of small- and medium-sized rivers for the construction of small hydropower stations of capacity of around 30 MW, with annual power output of 100 billion kWh hour. Unit costs for the construction of small hydropower plants are US\$1,100–2,000 per kilowatt of the projected capacity. Currently, Minenergoprom has developed a feasibility study for construction of 50 small hydroelectric power stations, which do not require substantial investment. In Tajikistan, 219 small hydropower stations with total capacity of over 14,000 kW are already operating.⁷²

At the initiative of the Government of Tajikistan, in 2009, energy-saving lamps are now widely used throughout the country instead of fluorescent lamps. According to preliminary calculations, this allowed to reduce the cost of lighting up to five times and to increase the service life of lamps by 8-10 times. In the country, large-scale efforts are being made to use energy-saving devices to reduce the electricity deficit.

Technologies for the use of alternative renewable energy sources (RES) – solar, wind, geothermal, as well as recycling of certain types of biomass – have not achieved a sufficient level of technical and economic parameters that would allow their widespread use especially in rural areas, small social facilities, production of greenhouse crops and everyday life. The practical use of these technologies is under development and is not yet economically competitive with conventional energy sources. However, RES have a great future in connection with the growing shortage of energy worldwide, and especially due to their renewable capacity.

In 2008, in accordance with the decision of the Government of the Republic of Tajikistan, the Academy of Sciences of Tajikistan created the Centre for Research and Use of Renewable Energy. As part of its activities and implementation of the Target comprehensive programme for use of renewable energy sources, studies of all types of renewable energy (energy of small rivers, sun, wind, biomass, etc.) have been conducted. This has allowed estimating the gross, technical and economic capacity of these renewable resources in the country.

Table 9. Renewable energy resources in Tajikistan, mln. t. in a year

Resources	Gross capacity	Technical capacity	Economic capacity
Hydro energy, total	179.2	107.4	107.4
Including small	62.7	20.3	20.3
solar energy	4790.6	3.92	1.49
biomass energy	4.25	4.25	1.12
wind energy	163	10.12	5.06
geothermal energy	0.045	0.045	0.045
Total (excluding large HPP)	5,020.595	38.635	27.955

Source: Centre for research and use of renewable energy sources, Academy of Sciences of the Republic of Tajikistan. 2010.

⁷² Data of the Ministry of Transport and Communications. 2010.

Great interest in these technologies is shown the educational system, a number of state agencies and public organizations. The Tajik Technical University named after Academician M. Osimi, based in the Centre for Innovative Technologies, has opened the laboratory «clean energy», which can conduct research on alternative and renewable energy and can certify the equipment and carry out a number of other studies on the use of solar energy and other RES. This example is not singular; the activities of many of the public, private and non-governmental organizations on the practical involvement of the general public, schools, and local communities can confirm the need to promote development in this direction.

Currently, there are dozens of completed and ongoing projects to implement RES on social sites and in residential sector. However, the mechanism for stimulating and informing the public about the possibilities and prospects of RES, are still underdeveloped.

In general, the indicator, provided for in the PRS 2007–2009, “reduce air emissions from stationary and mobile sources by 4%” is difficult to estimate in connection with the underdeveloped monitoring mechanisms of its assessment.

Many ODS to be controlled under the Montreal Protocol are also potent greenhouse gases. Tajikistan does not produce substances destroying the ozone layer.

Protection of ozone layer

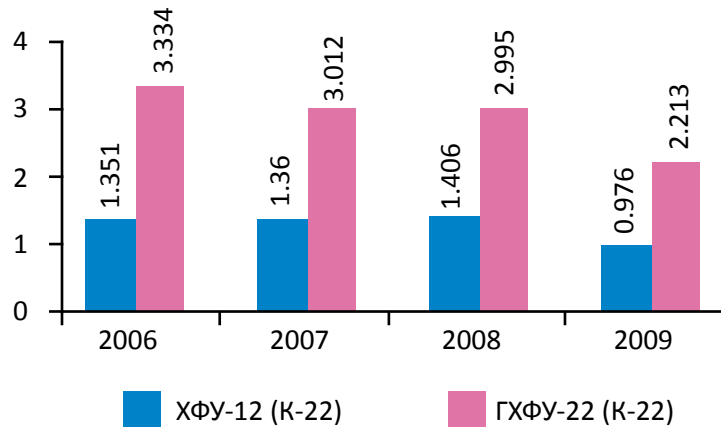
- Tajikistan acceded to the United Nations Vienna Convention on Protection of the Ozone Layer, on 4 November 1995. On 13 December 1997, Tajikistan acceded to the Montreal Protocol on Substances that Depleting the Ozone Layer and London amendments thereto.
- In 2002, the Government of Tajikistan approved the National Programme to End the Use of Ozone-depleting Substances.
- In 2009, Tajikistan acceded to the Copenhagen, Montreal and Beijing amendments to the Montreal Protocol.

In a number of industrial enterprises, which previously used ODS, about 8.3 tonnes of CFC-11 were removed from production and stored in accordance with the safety standards. Due to lack of equipment for recycling ODS, not only in Tajikistan but also in Central Asia, this issue will be solved in the near future by installing such equipment in one of the countries of Central Asia, with financial and technical support from the Multilateral Fund for the Implementation of the Montreal Protocol .

Under the project implementation, 117 pieces of equipment for CFC recycling have been imported to Tajikistan with 40 units of identifiers to determine the availability of ODS for Customs.

Refreshment courses on the use of imported equipment have been delivered to 398 technicians and experts in the field of repair refrigerators and air conditioners in order to work with the new ozone-safe technologies and more than 100 customs service officers.

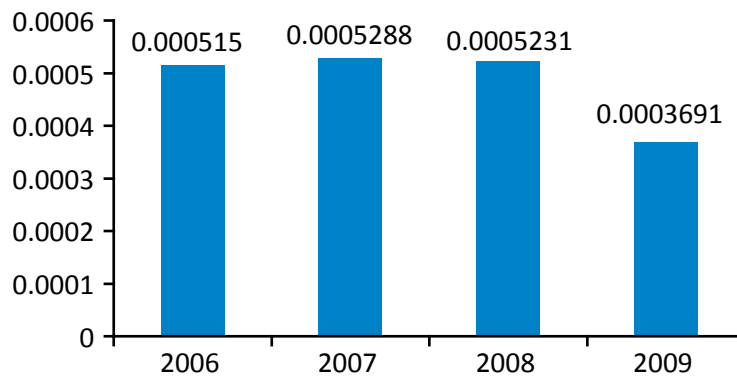
Figure 36. Emission of ozone-destructive substances to atmospheric air (estimated)



Data source: Committee for the Protection of the Environment under the Government of the Republic of Tajikistan

Currently, new alternative refrigerants with low rates of disruptive impact on the ozone layer, and therefore a harmful influence on both human health and its surrounding environment are imported to Tajikistan. The commitments made by the country to eliminate the use of ODS are implemented in accordance with the respective National Programme.

Figure 37. Per capita consumption of new ozone-destructive substances in Tajikistan



Data source: Committee for the Protection of the Environment under the Government of the Republic of Tajikistan

Target 2. Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss

Tajikistan:

- ratified the United Nations Convention on Biological Diversity (1997);
- signed the Cartagena Protocol on Biosafety to the Convention on Biological Diversity;
- approved the National Strategy and Action Plan on Conservation and Sustainable Use of Biodiversity (2003);

- approved the State Programme on Development of Special Protected Nature Areas for the 2006-2015 period (2006);
- produced four national reports on biodiversity conservation in the Tajikistan (2003–2009).

About 70% of Tajikistan's territory is classified as not subjected to economic impacts and preserved natural ecosystems.

About 20% of the territory of Tajikistan has been exposed to significant human impact on its ecosystems, but retain the capacity for proper recovery.

About 10% of the territory of Tajikistan, on which 2/3 of the population reside, is characterized by a high degree of human influence, where natural ecosystems are regarded disrupted.

The rare and declining species of animals and plants

- The Red Book includes 226 species of both lower and higher plants.
- Over the past 50 years, three species of animals have disappeared from the fauna – Turanian tiger (*Panthera tigris virgata*), Menzbir marmot (*Marmota menzgata*), and Syr-darya shovelnose (*Pseudoscaphirinchus fedtschenkoi*). The most vulnerable are reptiles and mammals.

In general, despite relatively a favourable state of ecosystems, their individual communities face significant anthropogenic pressure, which can cause considerable damage in natural ecosystems in the near future. In particular, the many communities of broadleaf forests and pastures are on the verge of disappearance and remain in small fragments of ecosystems within protected areas,

The reduction of habitat and loss of biodiversity are conditioned by underestimated impacts of ongoing socio-economic programmes with the components on preservation of the environment and the state of its natural resources.

Tajikistan has developed a system ECONET, which provides the prerequisites for the conservation of many species of flora and fauna, including rare and endangered species by establishing a system to identify biotopes/habitats with their highest concentrations.

Available qualitative and quantitative information on biodiversity indicators shows a lack of adjusted monitoring system in this sector and hence accessibility of accurate and objective information on biodiversity dynamics, quantity and habitat changes. Feasible departmental monitoring of the status of biodiversity is conducted by forest services of the Committee for Environmental Protection and limited to the lands of the State Forest Fund.

This low awareness on the present status of biodiversity makes it difficult to accurately assess the number of species threatened with extinction, and the effects of various economic activities, which together may have a negative impact on specific habitats, both individual species and their communities.

Protected areas

- Size – 3.1 million ha (22% of the country) ;

Protected areas include:

- 4 preserves of the total area of 173,418 ha;
- 12 wildlife reserves on area of 313,26 million ha;
- 1 national and 1 historical and natural park - a total area of 2,603,000 ha.

Natural Monuments, which occupy a small area, are represented by various unique objects of nature and under state protection. In Tajikistan, at present, there are a total of 162 objects.

In protected areas, there are under the protection and control about 12,000 plant species, 85 species of mammals, 10,000 species of invertebrates, 44 reptiles, 49 fish species, and 346 bird species, many of whom are of international significance.

For preservation and multiplication of rare and endangered species of biodiversity and ecosystems, Tajikistan has a developed network of protected areas (PAs). However, PAs do not fully reflect the natural diversity of all regions of the country.

The current network of protected areas has serious shortcomings, which make it impossible to consider it as a complete system of protection of rare and endangered species, due to:

- lack of a full range of different types of reserves;
- all varieties of precious natural ecosystems of Tajikistan that are not represented in PAs;
- the territory of a number of protected areas is insufficient for the implementation of environmental objectives;
- there are no land use planning documents for some reserves and nor an appropriate mode / regime of their environmental protection.

The main threats to the functioning of protected areas are:

- illegal land use and expansion of human settlements at the expense of PA;
- unauthorized hunting and fishing;
- excessive and uncontrolled grazing;
- uncontrolled disafforestation.

The priorities identified for the development of all protected areas in Tajikistan are: the ecosystem approach and biodiversity conservation, improved management of protected areas and development of the principles of the controlled nature management in the different types of protected areas, monitoring, and training programmes for professionals and the public.

In 2006–2009, state/centralized budget allocations were TJS1,730,000, and EUR366,000 were disbursed as grant support for the construction and improvement of logistics and implementation of environmental activities within the protected areas.

In the reserve «Tiger beam», there is a museum of local biodiversity, which is a site for conducting research work and training local people, students and pupils.

Donors provide substantial financial support for the development of protected areas. The externally funded projects have laid the foundation for implementation of the Programme on development of protected areas:

- the UNEP-GEF project «Establishment ECONET for long-term conservation of biodiversity in Central Asia»; medium-sized World Bank/GEF project on «Biodiversity Conservation in Reserve Dashtijum»;
- the GEF Project on biodiversity conservation in Gissar Mountains;
- The project «Support to the establishment of Pamir-Alai Transboundary Reserve (PATCA) on the territory of Kyrgyzstan and Tajikistan».
- Natural Resources Management and Poverty Reduction (Component 3 «Management of protected areas and biodiversity conservation»)

Since the start of implementation of the Programme on Protected Areas for the 2006-2015 period, the state budget allocations made up 3.3% of the target. Thus, the set-up in the PRS 2007–2009 target indicator «increase, by 3%, land area allocated for biodiversity preservation» has not been reached due to underfunding.

Climate change impacts on biodiversity

Consequences of climate change on the alpine fauna can be characterized by the example of the almost complete disappearance of Menzbir marmot (*Marmota menzbieri*) endemic of western Tajikistan, inhabiting northern Tajikistan. It is possible that at the current rate of climate change, species may be lost, will change the area of their distribution, the number of generations, and timing of development of insects.

Fish is highly exposed to climate change impacts, including increases in the temperature in the reservoirs and change in hydrological regime. For example, since the Nurek reservoir filling (1973), changes in water level and in the thermal regime have led to a modification in the composition of native species of fish (common marinka, Samarkand hramulya), which are replaced with weeds and allogenic fishes, and the volume of their catch has declined from 60 to 10%. In recent years, the massive outbreaks of some types of pest (cotton cutworm, grasshoppers, etc.) have resulted in a decrease in crop yields.

Forests of Tajikistan are under state ownership and occupy a relatively small area of 410 ha. The total area of forests has virtually not changed over the past 20 years, and is currently 1.8 million ha, 23% of which is occupied by forest plantations. A large part (up to 1 million ha) of the forests has been transferred by government decree for long-term use as pasture. The percentage of forest land across the country is only 3%.

For the development of forestry and its conservation, the Government of Tajikistan adopted:

- Forest Code of the Republic of Tajikistan, with the last amendments in 2008
- Programme on Forestry Development for 2006-2015, approved by the Government of the Republic of Tajikistan, (as of 31 October 2005, No. 396).

Woodland belong to the first group of forests and carry out the sanitary and health, soil conservation and water-regulating functions.

Areas covered by forest are the main habitat of flora and fauna, including rare and endangered species, where more than three quarters of all wild flora and fauna of Tajikistan are concentrated. Dendroflora of forest vegetation consists of 268 species, of which 26 are in the Red Book of Tajikistan.

Precise information about the area covered by forests, woody plantings, and other data are not available because the last forest inventory was conducted in 1998, and therefore accounting and reporting is carried out based on the outdated basic forest fund components.

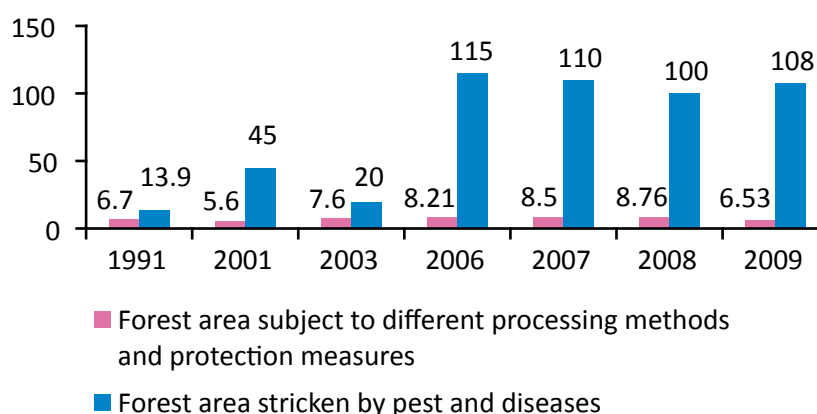
One of the most important forest indicators is their completeness. At an average rate of 0.5–0.6, in 1990, the proportion of medium plantations was 50%; in 2007, it was reduced by 20–30%. This relates mainly to overgrazing, plowing hillside lands and illegal logging, resulting in increasing the area of deforestation, accelerated erosion of the slopes, violated habitat of flora and fauna, and the increased vulnerability of forests to pests and diseases, which ultimately leads to a gradual change of the state of natural ecosystems.

Data on the current forest inventories indicate that the declining productivity of forests from 6 million m³ in 1990 to 5 million m³ is caused primarily by deficit of forest land for production of business timber. The rehabilitation of forests, as the main factor restoring their productivity, should be applied annually to at least 4,500 ha.

Currently they are carried out in the area of 1.5–2.1 ha. Forestry enterprises of Tajikistan annually plant on average more than 2 million seedlings.

Restoration of the capacity and increase in the forest area will require substantial financial investments. From the period of implementation of the Program on Forestry Development for 2006–2015, centralized funding was 8.7% of the target. However, for the 2006–2009 period, area covered by forest increased by 2,000 ha, or 0.5% of the territory against the target.

Figure 38. Forest area stricken by pests and diseases and subject to forest protection (thousand ha)



* According to data of the Committee for Environmental Protection under the Government of the Republic of Tajikistan, the dynamics of changing the area covered by forest is: 2007 – 411,000.ha; 2008 – 411,500 .ha; and 2009 – 412,000 ha.

As defined in the PRS 2007–2009, the target indicator “increase by 5% of land area covered by forest» was partially reached due to underfunding of the forest sector.

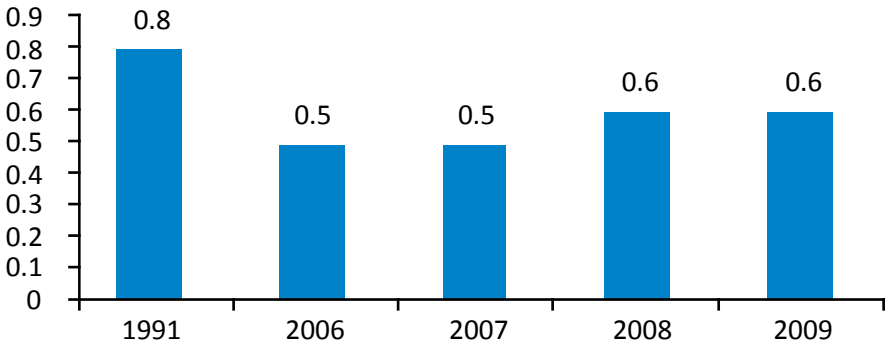
In recent years, interventions for forest protection and development of new plantations have stabilized somewhat with greatly expanded network of forest nurseries for producing sapling materials. The President of the Republic of Tajikistan has initiated holding an annual campaign, involving the broad masses of the population, for land improvement, which is important in public environmental education. Every year, public, private and public organizations plant on average 4 to 5 million seedlings with adaptability to 70%. The assortment of grown trees and shrubs has enlarged from 25 to 35 species.

Impact of climate change on forest resources

Forests are extremely vulnerable to climate change. Because of spontaneous hydro meteorological events forest roads are being annually destroyed; in forest nurseries seedlings are destroyed. Because of the severe cold, and the acute shortage of energy, people have to cut down forest plantations. In typically hot regions of the country subtropical fruit, figs, lemon, planting pomegranates, persimmons, and grapes suffer. because of the cold winters

Tajikistan is a landlocked country, having no access to the sea, and is one of the small countries in Central Asia. The provision of irrigated land per capita is only 0.116 ha and 0.006 ha of irrigated ploughed field, including 0.09 ha of arable land. Land suitable for cultivation of crops occupies 8% of the territory of the Republic. Rocky soils make up 140,000 hectares, of which 70 ha is located in agricultural turnover. Low natural productivity of land conditions significant costs of agronomic and reclamation works.

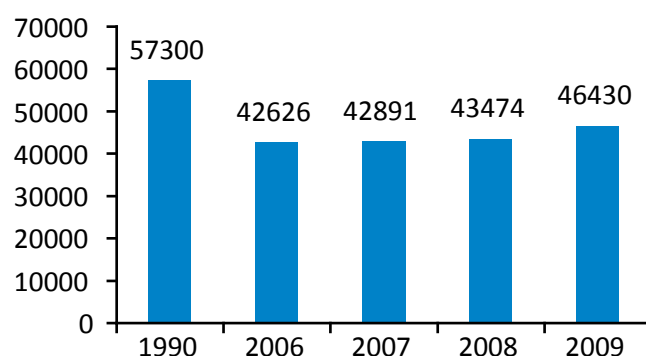
Figure 39. Household area per person (ha)



Data source: Agency for Statistics under the President of the Republic of Tajikistan

One of the main reasons for low development of agricultural production in Tajikistan is the poor state of farmland, resulting in its constant reduction of fertility, the destruction of soil layers, and the decreasing concentration of humus.

Figure 40. Amount of irrigated area with unsatisfactory land reclamation conditions (thousand ha)



Data source: MLR&WR of RT

Waterlogging and salinization of irrigated lands are widespread. Areas of irrigated poor reclamation land tend to increase and land areas with an unacceptable level of groundwater depth combined with salinity decreased by 11%. Due to the prevalence of saline soils in the irrigated zone, Tajikistan is the second group of countries in the world that are characterized by at least 15% of soil salinity, currently at 151,500 ha. The situation is complicated by the high susceptibility of irrigated land to repeated salinization, the area of which is currently 310,000 ha.

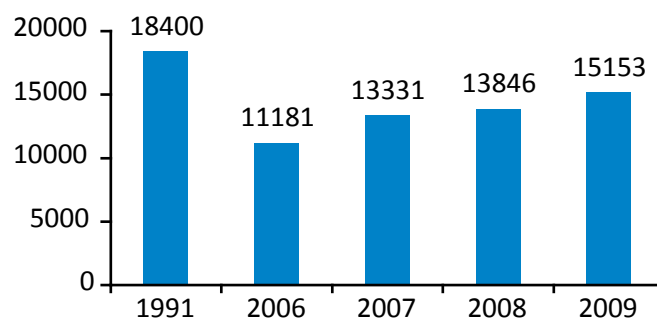
In 2005–2009, the Ministry of Land Reclamation and Water Resources accomplished the works on improving the ameliorative condition of irrigated lands in an area of 60,275 ha.

In order to fulfil the Resolution of the Government of the Republic of Tajikistan, «On measures to improve the reclamation condition of irrigated farmland in 2010–2014», it is planned to improve 49,000 ha. In the first five months of 2010, the reclamation condition of 556 ha of irrigated land has improved.

One of the threats of land degradation is unregulated and overgrazing on pasture lands. Summer pastures are degraded by more than 90%. Productivity of pastures has decreased 5–10 times due to changes in the species composition of plants.

Arable lands are degraded within an area of 720,000 ha. Land degradation is mainly caused by water, wind and irrigation erosion. The area of land affected by desertification in the past decade is more than 4 million ha, a third more than in 1990. Erosion processes are activated under the influence of such natural phenomena as mud flows, floods and landslides, especially during the development of slopes steeper than 10 degrees.

Figure 41. Area of salinated lands (thousand ha)



With some improvement in irrigated lands, provided for in the PRS 2007–2009, the target indicator «5% reduction in the area of degraded land and pastures» is difficult to define and

unlikely achievable. This is due to the lack of monitoring of degraded lands and lack of rehabilitation works with insufficient technical and financial capacities for the coming years.

However, the emerging trend of the agricultural sector development and financial incentives from the public sector and international organizations has contributed to the provision of food products due to a stepwise and sustainable growth in agricultural production, an increase in income and employment, and increased reproduction, thus ensuring food security. In 2009, to improve land development and soil quality, and thus reduce wind erosion and desertification, TJS4,912,000 was allocated, which improved the development of 8,774 ha of land.

Effect of climate change on land

Climate change can have a negative impact on nitrification capacity of grey desert soils and mountain brown soils (average temperature of 20 °C.) at low (-10 °C.) and high (+40 °C.) temperatures, when the accumulation of nitrates in the soil almost stops.

As a result of the impact on land resources and agriculture of naturally extreme and destructive meteorological phenomena, erosion processes are intensified, destroying the upper horizons of the most fertile soil, declining crop yields and reducing arable land area. The greatest concern is the prolonged droughts and outbreaks of diseases and pests.

Table 10. The damage of hydrolytic occurrences

Title	Unit	2006	2007	2008	2009
Leguminous plants / and cotton	Area (thousand ha)	2.1/ 1.7	1822.1/ 3067	3.9/ 0.4	10.3/ 8.6
Total for the country	Damage (TJS thousand)	561.9/ 658.6	1778.3/ 2135.3	3343.1/ 251.9	10471.2/ 4378.4

Climate change and natural disasters

Tajikistan is a mountainous country whose mountain height range from 330 to 7,495 m altitude. About half of the republic is above 3,000 m. Mountains occupy 93% of the country. Tajikistan is located in an active seismic zone, characterized by frequent earthquakes.

The Government of the Republic of Tajikistan adopted:

- The Government Programme for Emergency Situations and Civil Defence for 2009–2014 (2008);
- National Strategy on Disaster Risk Management for 2010–2015 (2010).

With the emergence of signs of global climate change, significant changes in the environment can be seen with the increasing threat of the vulnerability of natural ecosystems, especially in high areas with intensified geodynamic processes, degrading ice cover and land resources.

Caused by natural phenomena, natural disasters threaten not only the life of the population, but also resources and sources for their existence. If timely, concerted preventive measures to

reduce the natural disaster risks are not taken, this may result in significant social and economic losses, and allocation of financial resources to restore the incurred damage, some of which could be spent on sector development and poverty reduction.

To date, more than 50,000 landslide sites are registered, of which 1,200 threaten human settlements, roads, irrigation and other facilities.

In 18 districts of Tajikistan (four in Sogd region, 11 in Khatlon and three in the centrally administered districts), 142 settlements are in permanently waterlogged condition and 490 are seasonally waterlogged during the irrigation period.

In 2006–2009 period, in Tajikistan, 617 natural disasters occurred, which caused damage in various sectors of the economy. In monetary value, this amounted to TJS369,081 million, and affected 16,536 homes, of which 2,868 were completely destroyed (the damage caused by this destruction was estimated at TJS107,165 million)⁷³ with 130 casualties.

In addition to purely natural factors, human economic activity plays a big role in increasing exposure risk.

In Tajikistan, usually 20–30% of mountainous slopes are landslide-prone sites. Irrational use by a population of mountain areas, increased natural disaster risks are caused by: construction in hazardous and restricted zones without the engineering-geological surveys and findings; laying roads; settling on the slopes; construction of dams, reservoirs, canals and growing crops on hillsides; non-compliance of the irrigation mode and inadequate monitoring and planning activities related with the above processes..

The situation is exacerbated by the fact that the traditional placement of human settlements in mountain areas mostly coincide with areas prone to landslide hazard and the population are settled in these areas as large settlements, rather than small individual farms.

Water is the most abundant natural resource in Tajikistan, whose quantitative and qualitative status determines the stability of ecosystems, human health and economic development of the country.

Water resources of Tajikistan

- Glaciers – volume 845 km³, area 111,46 km²;
- Average multi year runoff – 64 km³ / year;
- (55.4% of the runoff in the Aral Sea);
- Groundwater resources -18.7 km³ / year, of which 2.8 km³ are operational resources;
- Lakes – 1,300 lakes with an area of 705 km² and water amount of 46.3 km³, of which 20 km³ is fresh water;
- Water reservoirs - the volume of 15.34 km³, which constitute 13% of the average annual runoff of rivers in the Aral Sea;
- Return water – 3.5-4.0 km³ / year (3.0 km³, - collector-drainage, 0.5 km³, - communal household) .
- In Tajikistan there are 200 springs, 18 mud and salt lakes.
- Recreational capacity (more than 5% of the territory), of which 2,567 km² (about 2%) associated with water.
- The hydropower potential - 527 billion kWh per year, used at less than 5%.

⁷³ According to the Committee for Emergencies and Civil Defense of the Republic of Tajikistan report 2000

With its large reserves of freshwater, Tajikistan is simultaneously having difficulties in dealing with water treatment and supply of safe drinking water, rehabilitating irrigation and drainage systems, and in implementing anti-erosion and mudflow-protective activities, etc. This situation is conditioned with a poor water management system and a low financial capacity to reform it.

Tajikistan consumes about 17–20% of water emerging within its territory, or 9.12% of the average multi-year runoff in the Aral Sea. Almost 40% of taken water from sources returns as waste and drainage water.

On average, to meet all the needs of industry, Tajikistan's annual water intake ranged from 10.0 to 15.0 km³/year.

In the structure of water consumption (by intake), irrigated agriculture dominates (up to 84%), followed by household and agricultural water supply (8.5%), industry (4.5%) and fisheries (3%).

Since 1990, water consumption is declining across the country due to lower production volumes, restructuring of the crop areas, deterioration of reclaimed land, fallow land, failure of irrigation systems, and the introduction of fees for water supply, among other reasons.

Also since 1990, the volume of water consumption by industries has decreased by 11.5%. Discharge of wastewater has also decreased by 16%. Water consumption by the utilities sector has declined by 21% while the amount of polluted runoff has been reduced by 34%.

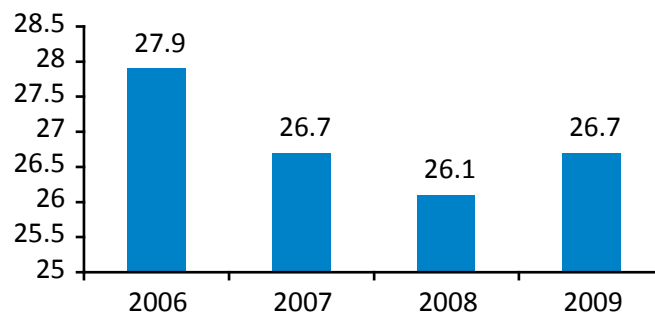
Of the total discharge of polluted runoff, 2–2.5% is of industry and 5–6% of public utilities. More than 90% of surface water pollution is caused by discharge of drainage water from irrigated lands as a consequence of the lack of receiving waters facilities.

The use of mineral fertilizers and pesticides, compared with 1990, has decreased by five times, which positively affected the quality of the waste and drainage waters.

In 2010, the Republic of Tajikistan and the World Bank with GEF financial support signed the project agreement for the rehabilitation of Vakhsh landfill of degraded pesticides, scheduled for the 2011 to 2014 period. About 4,000 tonnes of pesticides will be disposed.

The PRS 2007–2009 target indicator «7-9% reduction of wastewater discharge into surface and ground water facilities», according to the Committee on Environmental Protection under the Government of Tajikistan, is achieved at 6.8%. However, the inadequate monitoring system to assess of the achieved outcomes requires more detailed input-output analysis.

Issues of irrational use of water and its related significant losses are compounded by a significant increase in population both in the country and the Central Asian region. This is connected with an increase in water withdrawal and arable land areas. In this context, the critical task in overcoming the growing shortage of water is its management, regulation and metering.

Figure 42. Per capita water consumption (m³ /person)

Data source: Agency for Statistics under the President of the Republic of Tajikistan

All sectors of the economy have an inadequately established water accounting system, with modern automated water remote measurement devices; it is very difficult to determine the amount of actual water loss. According to State Unitary Enterprise Hojagii Manzili Komunali, the percentage of water loss in conduits is up to 15%; inside the quarter and house/residential networks, it is up to 30% and 40–50%, respectively.

The water supply accounting system is generally equipped with water measuring devices in industrial plants and a small part of the residential sector/housing stock.

The Government of Tajikistan is currently reforming the water resource management system. It is expected that the water resource management system will be transformed to the basin-based principle, and economic functions of water management will be delegated to the basin water management organizations. This will give significant autonomy to local water management basin organizations and ensure the transition to integrated water resources management in the country.

Due to the high degree of deterioration of the entire water infrastructure, accounting of water in the water economy is roughly estimated and water-measuring devices in irrigation networks are installed at a slow pace. Of the 40,000 farms, the overwhelming majority of them have no water meters. Of the 5,200 economic water distribution points, 38% nominally equipped with water-measuring devices.

Realizing the importance of addressing the issues associated with the use of water resources, at the initiative of the President of Tajikistan E. Rakhmon and the support of an absolute majority of United Nations member states and international organizations, the United Nations General Assembly declared 2003 as the International Year of Freshwater. Also, on the initiative of Tajikistan, the United Nations General Assembly declared 2005–2015 the International Decade for Action «Water for Life». In the framework of these decisions, Tajikistan, with the support of the United Nations and other influential international organizations, made a commitment for the International Fresh Water Forum (2003), the International Conference on Regional Cooperation in Transboundary River Basins (2005), International Conference on Disaster Reduction associated with water (2008) and the International High Level Conference on the midterm comprehensive review of the International Decade «Water for Life 2005-2015» (2010). Following the last conference, Tajikistan came with an initiative in the United Nations to declare 2012 as the International Year of Water Diplomacy.

In the resulting documents of these events, the participants reaffirmed their commitment to maintain and implement actions aimed at contributing to achieving the MDGs and meeting their targets. The main leitmotif of a Water Partnership, water solidarity and mutual support is the principles of addressing the water- related problems.

Impact of climate change on water resources

According to assessment on climate change, climate warming trend that has already led to one-third reduction in ice cover and, accordingly, the reduced water reserves in the glaciers. The duration and amount of snow in the mountains and water volume of some rivers tend to decrease. Variation in precipitation and river runoff throughout the country is also increasing.

Every year, on average, the melting of glaciers in Tajikistan contributes 10–20% input in the runoff of large rivers, and in dry, hot years, the contribution of glaciers in some rivers in summer can reach 70%. In longer term, 2030–2050, the area of glaciers in Tajikistan may be 15-20% reduced compared to today, and water reserves in glaciers may decrease by 80–100 km³.

Target 3: Reduce by 2015 the proportion of people without sustainable access to safe drinking water source and basic sanitation facilities.

According to the Ministry of Health of Tajikistan, 58.1% of population has access to safe (drinking) water in Tajikistan from centralized sources, including 95.3% of those in the major cities and towns. In rural areas, this indicator is 32.1%.

In general, in Tajikistan, a centralized wastewater system covers no more than 23% of the population, while in urban areas, almost every second citizen has sewage against 10% in rural areas.

Only 60% of Tajikistan's population uses tap water and 40% consumes water directly from rivers, canals, small-scale irrigation networks and other sources are disadvantaged from a sanitation point of view.

The population is provided with drinking water from 722 water supply systems, including 103 municipal and 619 departmental units.

According to TLSS – 2007:

- 58.5% of the population use improved drinking water sources, of which 90.7% are urban inhabitants and 47.0% are rural inhabitants. Among them, 56.9% are men-headed households and 67% are female-headed households;
- 43.8% households in the country use the water-pipe system as a source of water, of which 84.9% and 24.2% are urban and rural inhabitants, respectively;
- 60.4% of the population use any method of water purification, of which 62.4% are urban and 59.6% are rural inhabitants;
- 12.8% of the population have access to sanitation facilities connected to a sewerage system, of which 44.8% are urban and 1.3% rural inhabitants;

- 99.4% of the population use improved sanitation facilities (if pit latrines can be classified as improved), of which 99.8% and 99.3% are urban and rural inhabitants, respectively, including men-headed and women-headed households -- 99.5% and 99.1% respectively;
- 14.7% of the population use improved sanitation facilities (if pit latrines are classified as unimproved), including 48.3% of urban and 2.7% of rural inhabitants.

Moreover, 463 (64%) of water pipelines do not meet sanitary requirements, because of lack of the sanitary protection zones (251 units), water purification facilities (152), decontamination (chlorination) facilities (233 units). In addition, water is consumed from the 1,155 non-centralized water supply sources.

Intake of 105 pipelines is carried out from open sources that are prone to pollution of various kinds, of which 40, or 38.1%, have no required treatment facilities. Treatment facility capacity deficit is more than 60 million m³.

- According to the GUP Hochagii manziliyu Kommunalni, the state of the drinking water supply in cities and regional centres of the republic within its area of its service or percentage of population with access to drinking water is as follows: 01 January 2008. - 50%, 01.01.09. - 50.2%, 01.01.10. - 50.34%. As at 1 January10, in the cities and district centers 74,1% of the population is connected to centralized water supply system
- Total cost of the Program to Improve the Provision of Clean Drinking Water for 2007–2020 is TJS 3,324,844 thousand TJS.
- According to the approved Programme work plan for 2007–2009 in the system STATE Unitary Enterprise Hojagii Manzili Kommunalni, 31% of the programme budget funds have been actually allocated and utilized.
- According MLR&WR, in the Ministry under this programme the total cost of the implemented projects was TJS12.667 million, resulting in more than 500,000 people gained access to safe drinking water and improved sanitation.
- According to the Agency for Statistics under the President of the Republic of Tajikistan, State budget expenditure on water supply, sanitation and housing and communal services was as follows: in 2007--1.7%, 2008 - 1.3%, 2009- 1.7% of the GDP (preliminary data).

Of the 62 cities, district centers and urban villages, only 52 have a central water supply and only 32 have a sewer system. All water supply and sewer infrastructures are worn out and need reconstruction.

For improving water supply and upgrade water infrastructure, the Government of Tajikistan adopted:

- The Programme to improve the provision of clean drinking water for 2007–2020, approved by Resolution of the Government of Tajikistan (2006);
- In the process of adoption of the Law «On drinking water and its supply».

Efficiency of treatment facilities does not exceed 30-40%. In all the sewage treatment plants, the mechanical treatment is practically not functioning, water treatment is done mainly in biological way. These facilities serve 34% of the population of cities and regional centres.

The major factors affecting the water supply and drinking water quality are: lack of chlorination and filtration of raw water, corrosion of water pipes and water leaks, unstable supply of electricity, and lack of trained personnel, etc.

Authorized agencies and organizations, coordinating the activities on the complex of issues of maintenance of water pipes and sewers, are not able to maintain facilities, primarily due to the decentralized management system of the country's utilities, the uncoordinated reforms in this sector of the economy, instable supply of electricity (especially in rural areas), underfunding and the ineffective tariff system.

The MICS survey reports that 89.9% of the population, including 97.3% of urban and 87.8% of rural population are provided with toilets. If 30% of urban toilets are connected to a sewerage system, in rural areas only 0.7% of the population has access to the sewerage system. The rest of the population uses pit latrines and absorbing type latrines, polluting not only the surface water, soil, but also groundwater.

Drinking water is mainly disinfected in the municipal water-pipelines. Water disinfection in departmental pipelines is irregular. Liquid chlorine disinfection of water is available only in large cities.

Bacteriological tests of drinking water are carried out only in major cities and regions at the regional laboratories. The tests of drinking water conducted by SES of the Ministry of Health show that 14 to 23 % of drinking water samples do not meet sanitary norms and State standards for "Drinking water".

In Tajikistan, surface water and groundwater sources are mainly used to meet the needs of population in water supply. More than half of them exceed the permissible level of hardness and salinity. Overall, 87% of urban and 20% of the rural population receive water from centralized water supply systems that does not fulfill drinking water standards.

The comparative analysis of the incidence of infectious intestinal diseases for 2005–2009 showed that the water factor plays a major role in their outbreaks. In general, in Tajikistan, the incidence of infectious diarrheal diseases is high. In 2002, there were 67,300 recorded cases of acute intestinal infections compared to 67,800 cases (100.7%) in 2008. There were 7.7 and 7.8 t\ cases of viral hepatitis cases in 2002 and 2008, respectively.

The PRS 2007–2009 target indicator on improving access of the urban and rural population to water and sanitation, is difficult to statistically estimate, because there are no assessment monitoring mechanisms and this requires more detailed departmental input-output analysis.

Findings and recommendations:

- Conduct monitoring in adapting to climate change, accounting and reporting GHG emissions in sectors of the economy.
- Strengthen institutional and human capacity on organization and attracting investments in the sectors under the CDM and raise awareness of stakeholders about the social and economic benefits of the projects.

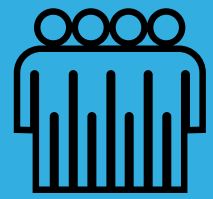
- Implementation of phased transition to more environmentally friendly types of vehicles (Euro-1 level and above) with introduced tax on second-hand motor vehicles and customs duties on imported second-hand vehicles and spare parts.
- Organize integrated environmental monitoring assessment of the degree of environmental pollution from stationary and mobile sources.
- Develop and implement sustainable mechanisms of stimulation and priority investment in the use of RES.
- Develop international cooperation on technology transfer and exchange of experience in the field of RES and dissemination of this knowledge among the population and the general public.
- Adopt legislative and regulatory instruments to ensure priority use of renewable energy sources for the purposes of energy efficiency, introduction of mechanisms to encourage the use of RES.
- Establish a legal framework to prevent the use of ODS and to regulate the issues for licensing and introduction of quotas on ODS; establish a monitoring system, deliver of training and certification, and provide support for research studies on the ozone layer awareness.
- Improve and harmonize environmental legislation in order to create institutional and legal conditions for a successful fight against desertification and degradation of pastures.
- Develop of a monitoring network to assess the quality of lands and rangeland, desertification process and its impact on the environment, the introduction of distant methods of land resources sensing;
- Conduct an inventory of pastures with the complex geo-botanical studies and mapping.
- Rehabilitate eroded lands, implementation of agricultural, agro forestry and hydraulic erosion control measures.
- Use soil conservation methods of irrigation in the furrows, water-conservation irrigation technologies applying drip irrigation and sprinkler irrigation in conjunction with erosion control measures.
- Improve financing mechanisms and investment in the fight against desertification and improve land reclamation.
- Optimize irrigation norms of crops combined with methods of sprinkling and drip irrigation.
- Develop sector adaptation measures to climate change and their integration in regulations;
- Create an integrated legislative and regulatory framework system , defining a legal basis and mechanisms to respond and manage natural and manmade emergencies.
- Develop and periodically update plans on disaster preparedness for natural and man-made disasters setting out the legal framework for response emergencies.
- Improve early warning systems as a way to improve response to natural disasters resulting in a reduction of casualties among the population and prevention of social and economic damage.
- Construct mud flow prevention facilities and flood control hydro technical constructions to reduce natural disasters related to water;
- Integrate issues associated with reducing risk from disasters in the system of formal and informal education and training, the use of knowledge and experience to build a culture of safety and capacity of communities and populations to withstand disasters at all levels.

- Establish mechanisms for joint purposeful action with international organizations at the national and regional levels for long-run perspective;
- Sustainable centralized funding for the development of forestry for the 2006-2015 period.
- Use the CDM capacity under the Kyoto Protocol and the Copenhagen agreement for increase in funding for the restoration of forests and strengthening a network of protected nature reserves.
- Conduct an inventory of forest resources.
- Restore of mountain and floodplain forests in order to reinforce the slopes, stabilize river flow directed to the development of anti-erosion processes.
- Develop adaptation measures aimed at improving fire protection of forests and their protection from pests and diseases.
- Carry out training and involve local people and communities in preservation and multiplication of forests.
- Make the transition to the Integrated Water Resources Management (IWRM), providing for a system of water management based on accounting all sources of water and the interests of all sectors and water users.
- Maximum reduction of water loss associated with its delivery in all sectors of the economy.
- Introduce water turnover.
- Introduce limited water supply.
- Elaborate a long-term strategy for large-scope introduction of water conservation irrigation technologies.
- Improve differentiated and stimulating economic mechanisms of water supply services to the sectors of the economy and population.
- Undergo a concerted reform of the water supply and sanitation sector, implementation of effective differentiated tariff policy.
- Develop the «Drinking Water State Standard»;
- Rehabilitate, reconstruct and expand the centralized water supply systems in cities and towns.
- Develop and implement a programme on government support in water supply, including the creation of an economically attractive environment for private investment and privileged conditions for the communities constructing their own water supply systems.
- Conduct training of sector technical staff and management personnel.
- Raise public awareness about their rights and responsibilities to water use, compliance with hygiene requirements;
- Improve the quality of drinking water disinfection in accordance with the requirement of state standards, construction and protection of sanitary zones of water sources and head water intakes;
- Eliminate water leaks at all levels of water supply, installment of water meters at all levels of users.



GOAL 8:

Develop a global partnership
for development





Indicators:

- *The unemployment rate among youth*
- *The volume of external debt*
- *Debt service as a percentage of exports of goods and services*
- *Access to computers per 1000 population*
- *Telephone and cellular subscribers per 1000 population*

Target 1. Strengthen cooperation with the international community for national capacity development

It should be noted that benchmarks are not established for all these indicators.

MDG 8 is aimed at creating new mechanisms for global partnership to address critical issues of socio-economic development of developing and transition countries, as well as improving existing mechanisms for cooperation between the developed and the above-named countries. Links need to be updated so that international and regional financial and economic organizations, NGOs, the developed countries, and transnational corporations can contribute to the elimination of mass unemployment, lowering levels of external debt, and rapid development of information and communication technologies. Tajikistan, is the most vulnerable, not only in Central Asia, but even in the Asian continent in this respect. Assistance from the international community in Tajikistan should go hand in hand with increased efficiency of use of internal resources to address these challenges.⁷⁴ In fact, the resolving these problems requires that the real and specific needs of the country are met by integrating the Tajik economy into the regional and world economies.

Cooperation with the international community for national capacity development – the current situations and trends

The Report of the United Nations Secretary General at the 64th United Nations session, held on 12 February 2010, after the Millennium Summit and devoted to its follow-ups, states:

The international community, in partnership with all interested countries, should support national development strategies ... intensify the investments in developing countries, minimize potential crises and conflicts, and be much more responsive to their humanitarian, reconstruction and rehabilitation needs, and encourage and support reform to create a more favorable international environment for development ... (p. 104).

The measures aimed at driving the achievement of the MDGs, outlined in the Millennium Declaration, will require that all levels of budget and institutional capacities are consolidated, both of donors and aid recipients and strict regulation of public and private sectors operations

74 United Nations. General Assembly. 64th session. Report of the Secretary General, 12 February 2010. p. 39.



to ensure that the money reached the right place at the right time and for the right targets”⁷⁵(para. 105).

Each country has connections with the international community in different ways, based on the specifics of its development. Tajikistan is not only a transition economy, but a low-income country. According to the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), GDP per capita (PPP value) of the CIS countries are as follows: US\$1,761 in Tajikistan, Uzbekistan – US\$2,455 dollars, in Kyrgyzstan- 2023 dollars, in Turkmenistan – US\$6,138, in Kazakhstan – US\$10,458, in Azerbaijan – US\$8,102, in the Russian Federation – US\$14,917. These data show that Tajikistan is the most backward countries, not only in the Central Asian region, but the entire post-Soviet space. As a result of numerous factors, its place is among the least developed countries such as Bangladesh, Nepal, Cambodia, Lao People’s Democratic Republic and Timor Leste. This country needs more and intensive assistance from international donors, since the low GDP per capita, shown above, brings the risk that the seven MDGs with regard to Tajikistan are unlikely to be met without such assistance. Given that Tajikistan has its own development characteristics and factors, assistance from the international community should concentrate on those areas that can ensure the highest socio-economic effects.

Target 2. Develop and implement strategies for decent and productive work for young people.

As known, one of the indicators of Goal 8 is the unemployment rate among young people. Clearly, this concerns reducing unemployment among youth. According to different expert estimates, in Tajikistan, around 30–59% of young people are jobless. The country does not have the logistical and financial capacity to employ the growing number of young people from year to year. In the 2005 only–2009, the number of persons who attained 20–24 years of age increased from 660,800 to 805,200, or by 21.9%. Size of population of 25–29 years of age grew from 519.5 to 619.8 thousand or at 19.3%. More than 75% of this group is not provided with formal jobs. As a result, they seek jobs either in the informal sector, or leave for other countries in search of work. Jobs can be created in the country but it will cost from US\$5 to 175,000 per worker, depending on the nature of the workplace (labour-intensive, material-intensive, science-intensive, capital-intensive or in various combinations, for example, labour-intensive and knowledge-based).

Neither the state budget, nor the private sector has no resources for full employment of increasing labor force. Only in 2008, there was an increase in the labour force, reaching 138,000 people. In order to ensure the most inexpensive, labour-intensive jobs it will require at least US\$700 million. However, if they are provided with jobs, under the current sectoral structure of the economy, it will require US\$4,14 billion per year, or 86.0% of the national GDP. This is only for one year. Every year, more than 80% of the male workforce population growth flocks to Russian Federation, Kazakhstan, Belarus, Ukraine and United Arab Emirates searching for a job offering a decent wage. It should be noted that the average salary in Tajikistan is very far from being able to provide not only decent subsistence of households, but a simple production of labour force. For a monthly wage in Tajikistan you can buy 50 kg of wheat, compared to Azerbaijan – 218 kg, Belarus – 180 kg, Kazakhstan – 207 kg in the Russian Federation – 433 kg., Ukraine – 219 kg. The same applies in general to other food products (potatoes, meat, milk,

⁷⁵ Statistical Yearbook for Asia and the Pacific. 2009. ESCAP. Bangkok, 2010. p. 104.

butter, eggs, etc.). In the same year, the average salary in Tajikistan was about TJS231.53 TJS, or US\$67.5.

The number of young people entering external migration is continuously increasing. According to the Migration Service of the Ministry of Interior, currently 692,900 people, immigrants from Tajikistan, are working in foreign countries. In contrast to immigrants from other former Soviet countries, they are in need of more support because they are exposed to exploitation and substantial abuse. This is mainly due to the fact that the bulk (80%) of the Tajik labour migrants work illegally because (i) they cannot speak Russian; (ii) have no awareness of labour laws in the labour force of recipient-countries; and (c) have low educational and vocational qualifications. Therefore, Tajik migrants are the most poorly paid, commonly doing unskilled and unhealthy work.

Difficulties and risks towards achieving the goal

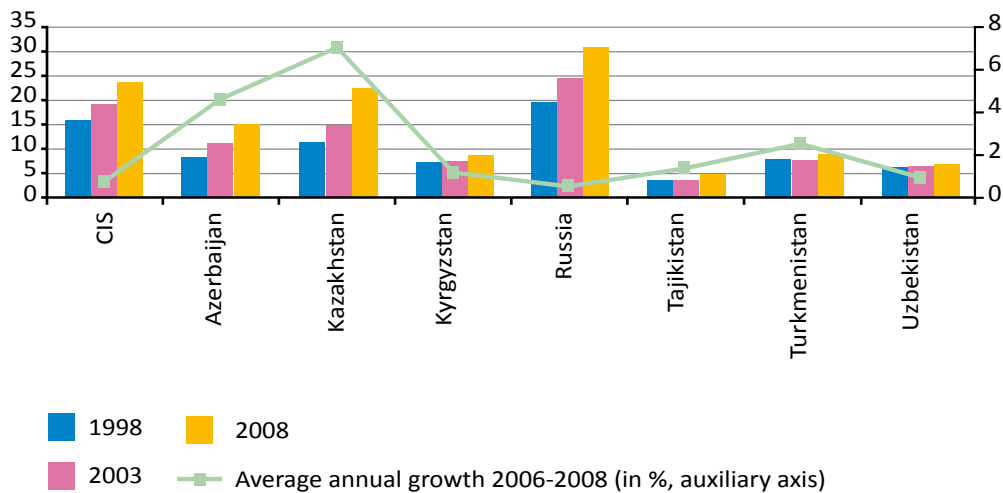
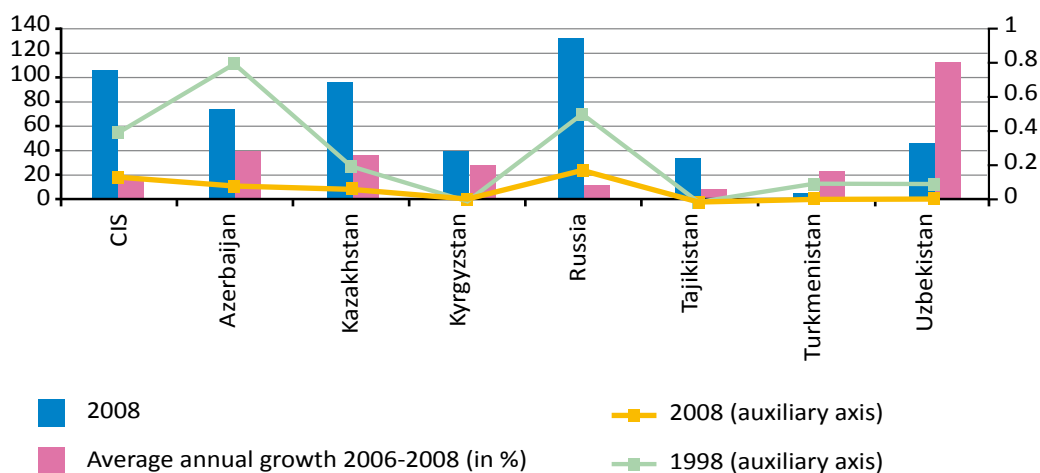
The international community has not yet paid due attention to this category of youth. Neither IOM nor ILO or the international financial and economic organizations have focused on this population, which faces several challenges and risks. Despite a very large amount of remittances of migrant workers (which reached US\$2.7 billion), this cash inflow into the country failed to lead to rapid poverty reduction in Tajikistan. In addition, during the financial crisis, the amount of remittances was reduced to \$1.8 billion.

Surveys show that ELM leads to a deterioration in the demographic structure of the population, weakening the family institution, reduced educational potential of the society. It affects health and recreation capacity of families, shortage of skilled manpower, particularly in agriculture, and the moral degradation of a large number of migrants. In this regard, numerous risks exist, inter alia depopulation of many settlements, the rise in the number of girls who are unable to find a spouse, labour efficiency reduction, and lower rates of skilled labour use.

Target 3. In co-operation with the private sector, make available benefits of new technologies, especially information and communications.

Integration into international information community

In recent years, Tajikistan has been booming in telephone service provision, not only within the country, but also among users of fixed and mobile telephony networks, and other countries. More than 70% of the population are mobile phone users. In cities and large villages, a network of Internet cafes is expanding, increasing people's access to fixed telephone services, mobile communication and Internet access. However, Tajikistan still lags behind in terms of access to international information production in comparison with countries in the region. This is illustrated by Figures 43 and 44.

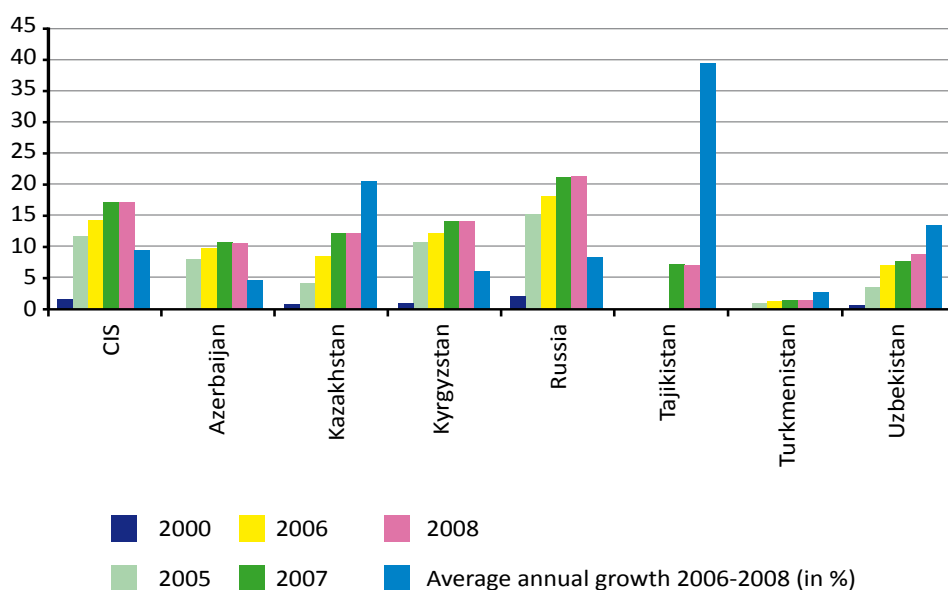
Figure 43. The number of stationary telephones (per 100 persons) ⁷⁶Figure 44. Number of mobile phone users ⁷⁷

Figures 43 and 44 show that in Tajikistan, the growth rate of both fixed and mobile phone networks is far behind other CIS countries despite the boom felt in the country. Installation of telephones in rural, mountainous and outlying areas is occurring at slow pace. Many rural areas are not fully covered by any fixed or mobile phone network. Mobile operators focus only on those settlements whose population is able to pay for the services, i.e. solvent.

Internet services in Tajikistan also lag far behind other countries, as can be seen from Figure 45, although the rate of growth in the number of Internet users is high.

⁷⁶ Statistical Yearbook for Asia and Pacific. 2009. ESCAP, Bangkok, 2010. p.132

⁷⁷ Ibid.

Figure 45. The number of Internet users⁷⁸

These data show a very rapid increase in number of Internet users in Tajikistan, which is expressed in its highest rate of growth among the other former Soviet countries. In this respect, the situation in Tajikistan seems much better than in Uzbekistan, Turkmenistan and other countries. However, the data from official sources need to be verified, since the usual observations shed some doubts on their reliability.

Difficulties and risks in achieving the goal

In Tajikistan, access to information and communication technologies is constrained by low demand of the population and decreasing overall literacy. The above technologies are widely used by people with relatively high incomes, and poor and extremely poor groups of the population remain excluded from their active use. The same applies to the industries and types of settlements. These services are widely used in education, health, governance, finance, industry, but are underutilized in agriculture, environmental protection, local self-government, and in the entities of internal affairs, etc.

Acceptable level of external debt

In such countries as Tajikistan, the issue of external debt is of paramount importance given the following circumstances:

- a) the economy of the country wants to be more attractive for investment. The country has not yet created a favorable investment environment. Therefore, unlike many post-Soviet countries, in order to meet its plans for economic development the Government of Tajikistan places increasing emphasis on external debt;
- b) within the country, in fact, very scarce resources are available for sustained economic development. The country is characterized by high poverty rates with quite high propor-

⁷⁸ Ibid, p. 133.

tion of low-performance companies that adversely affect the formation of government investment resource base and development of private and corporate sectors. This makes both the State and the business community look at external sources of borrowing;

- c) international financial and economic organizations are interested in attracting external funds for such transition economies, characterized by economic backwardness and high poverty rates.

In recent years, the World Bank and IMF have been undertaken the initiatives for Heavily Indebted Poor Countries (1996), known under the acronym HIPC Initiative, and additional debt relief on a multilateral basis – MDRB. (2005). The last initiative allows 100 per cent cancellation of the debt owed to the IMF and the International Development Association (IDA). By writing-off debts, 33 countries have received debt relief;⁷⁹ Tajikistan is in the group of these countries.

Such initiatives absolutely have positive sides. Theoretically it is assumed that free surplus resources can be invested in the economy. But in reality this happens not in all countries. In countries with entrenched corruption, such measures are unlikely to lead to the increase in investment potential.

The reports on external debt status of Tajikistan need further improvement unless they only contain information on the sources of borrowing, debt rescheduling, external debt currency, debt service, along with international comparisons, which include indicators relating to aggregate external debt of the CIS countries, relationship of external debt and GDP for individual countries, external debt per capita, concessional loans, ratio of external debt service and export, etc.⁸⁰

External debts play a crucial role in investing in the Tajik economy. The Committee on Investments and State Property Management reports on investments programmes funded by external debt and grants; 75% of the cost of work carried out under the mentioned programs is the funds of external public debt and makes up US\$8 billion. According to IMF, the aggregate public debt of Tajikistan increased from 30.1% of GDP in 2008 to 44.7% in 2010.⁸¹ The too rapid increase in external debt will prevent critical issues cannot of social and economic development faced by the country from being resolved .

Sources of external debt with respect to national fundamental interests have definite values. Here, the ratio of multilateral and bilateral debts in external debt structure of the country is of concern. From the view of the borrower's interests, they both have different characteristics. A number of multilateral debts, especially small-sized, are not focused on the development of the real sector of the economy, and yet are used for such purposes, which return effect may be zero. This is, basically, the resources that are used for more in-depth political, economic and institutional reforms.

The external debt structure of Tajikistan is presented in Table 11.

79 For more detail, see: Development of a global partnership for achieving the Millennium Development Goals. Report of the Task Force to Assess Progress in achieving the MDGs in 2008. New York, 2008, p. 31–32.

80 See: Annual Public Debt Status Reports, published by the Ministry of Finance of RT. .

81 Hurley Gail. Draft Report Outline: Study on Debt and Fiscal Space. 24 February 2010. www.sitevesources.worldbank.org

Table 11. External debt structure of the Republic of Tajikistan by type of creditor (in US\$)⁸²

(%)	1995	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Multi-lateral debts	79.1	133.0	315.0	365.6	378.5	387.4	459.6	591.5	643.7	629.7	684.8	686.2
	10.4	15.9	32.0	36.0	37.0	39.0	45.0	68.0	72.0	73.0	61.0	50.
Bilateral debts	537.7	574.8	542.0	533.7	529.8	492.4	474.2	217.3	200.7	185.3	385.9	638.4
	70.4	68.8	55.0	52.0	52.0	50.0	46.0	25.0	22.0	21.0	35.0	47.0
Other debts	147.4	128.0	119.7	127.8	110.2	104.7	96.9	62.2	51.2	51.4	49.2	46.9
	19.2	15.3	12.0	12.0	11.0	11.0	9.0	7.0	6.0	6.0	4.0	3.0
Total	764.2	835.8	976.7	1027.1	1018.5	984.5	1030.7	871.4	894.9	866.3	1119.9	1371.4
	100	100	100	100	100	100	100	100	100	100	100	100

Table 11 shows that in the past 15 years, ratios of multilateral and bilateral debts have been fluctuating. Share of multilateral debts tended to increase until 2005, and then its sharp decline commenced. In general, in 1995–2008, the volume of multilateral debts increased 8.7 times, while bilateral debts grew by 18.8%. The situation of bilateral debts dramatically changed in 2006–2008, when such borrowing increased 3.4 times, which occurred as a result of borrowing from China. In 1995–2008, the debt of Tajikistan to China increased from US\$5.3 million to \$494.0 million. According to available data for 2009–2010, Tajikistan's debt to China is approaching US\$1 billion. Financial resources borrowed from China are used for the development of infrastructure objects – the construction of roads of national importance, transmission lines, traffic tunnels, etc. Such facilities are crucial for the real economy development. It should also be kept in mind that such debts will not be written off as debts to such multilateral organizations as the World Bank, IMF or ADB. Therefore, there should be some precaution towards loans provided by some individual countries. The most important thing is to ensure efficient use of the provided cash facility. In recent years, the external debt structure by its users is changing. Accordingly, the level of centralization in acquisition and utilization of public debt rises. The share of direct government debt rises while the percentage of debt of public enterprises and NBT is consistently declining. Consequently, in 1999, the ratio of direct government debt in aggregate external debt was 77.5% against 95.4% in 2008. At the same time, specific weight of state-owned enterprises declined from 11.7 to 3.2%. This situation can be described as negative.

It should be recalled that the increased ratio of direct government debt means directing appropriate resources into the infrastructure sector. With respect to the real economy, under this scenario of receipt and distribution of the borrowed funds, the rate of its delay and, in particular, depreciation of production assets will increase. This is the situation in Tajikistan.

With respect to the efficiency of investments, it would be better to increase the proportion of economic agents in the structure of both external and public debts. Under this option, the bulk of the borrowed funds will be directed to the development of a real sector of the economy. This will lead to a number of positive outcomes which include: a) renovation of basic production assets to meet the requirements of scientific and technological progress and replenishment of floating production assets in the light of standards applied to them; b) rehabilitation of pro-

⁸² Public debt status statement as of 2008, the Ministry of Finance Republic of Tajikistan, Dushanbe 2005. P. 6 and Public debt status statement as of 2008, the Ministry of Finance Republic of Tajikistan, Dushanbe, 2009, p.10.

duction capacities and increase in their use; c) increase in revenue of production units in tax revenue to the state budget, and d) enhanced participation of enterprises and organizations in addressing local problems of socio-economic development.

In the context of Tajikistan, it is crucial to increase the role of the local authorities and local self-governments in obtaining and using external debt funds. Decentralization in the distribution and use of external debts may increase the capacity of repayment and servicing external debt. Under any circumstances, the centralized use of borrowed resources reduces the capacity of timely repayment of borrowed funds and lowers the economic efficiency of the production. Decentralized allocation of these resources will increase the value of the principle of targeting, forcing policy makers to find ways to raise productivity and improve other performance indicators of enterprises. In 1999–2008, the external debt of public enterprises declined from US\$113.9 million to 44.4 million, i.e. a decrease by 2.6 times. The debts of enterprises with and without government collateral decreased by 3.2 times and by 45.3%, respectively.

The Government has reduced the scope of providing guarantees to the private sector. External guaranteed debt to private companies has decreased by 2.3 times.⁸³ The Tajikistan's external debt structure has a clearly imbalanced direct public debt in addition to the debt of enterprises and local authorities. There is a disproportion between centralized and decentralized, manageable external debt of the country. In this regard, the matter of establishment of a special body to manage the external debt of the country is actively discussed. Some researchers share the view that an independent unit should be created to manage external debt. This view takes into consideration that debt management requires special knowledge and skills that are obtained more easily in an independent division. The way that the debt management unit will be organized will depend on the specific situation in each country.⁸⁴ The external debt management office must take into account a whole range of features of political and socio-economic development of Tajikistan. In particular, it aims to more closely monitor the distribution and utilization of the funds borrowed abroad in order to minimize the factors having a negative impact on the effectiveness of this resource utilization. Accordingly, it may be concluded that such a service should work in close liaison with representatives of civil society. Only such cooperation can ensure transparency in the external debt use and reduce corruption in this vital issue.

The main target of the Heavily Indebted Poor Countries (HIPC) initiative, as known, is to release resources for development. Debt reduction means that the appropriate budget resources will not be used for repayment of the main part of the external debt and its servicing. The cost of external debt service in recent years is notably high. In 2000–2008, it was US\$530, 3 million. In one year alone (2007/2008), it increased from US\$48.7 to 89.5 million, under the condition that the transferred amount of interest for the principal debt would increase from US\$11.8 to 17.1 million.⁸⁵ If debts are not written off, this could lead to even increased amount of external debt service, including interest. It is known that it also contributes to narrowing of the investment field needed for prompt solution to the critical issues of socio-economic development of the country.

Experts calculated a threshold value, i.e. optimal ratio of the cost of public debt service and the size of external public debt, at 25%. In this respect, the situation in Tajikistan is more or less problem-free. In 2000, the above indicator was 5.2% compared to 6.1% in 2001, 8.9% in 2002, 3.4% in 2003, 4.2% in 2004, 7.6% in 2005, 5.7% in 2006, 4.3% in 2007 and 6.5% in 2008.⁸⁶

83 Public debt status statement as of 2008, the Ministry of Finance of RT. Dushanbe, 2009, p. 16.

84 Overview of legal issues of debt management. UNITAR. Geneva, 2004, p.16.

85 Public debt status statement as of 2008, the Ministry of Finance of RT. Dushanbe, 2009, p. 19.

86 Public debt status statement as of 2008, Ministry of Finance. Dushanbe, 2009, pp. 7 and 19.

The figures show that the ratio of external debt service and external debt is much lower against this threshold value, which determines taking account the interests of maintaining economic security. This is the result of two factors: repeated debt restructuring and receiving preferential debts. In the future, the burden of servicing the external debt will undoubtedly rise, since timing of debt repayment as a result of its restructuring is postponed.

Difficulties and risks in achieving the goal

In recent years, the external debt structure has been deteriorated with increasing proportion of debts of a bilateral nature, i.e. individual countries. Some of these countries acting as borrowers have their geopolitical interests. These debts are usually not written off and can put pressure for a long time.

Another not less serious point is that there is still no effective monitoring on effectiveness of utilization of the borrowed funds. Neither the central government authorities nor businesses get used to a practice of such use of the funds that the resulting profit would be the main source of debt repayment and its interest. Some definite problems exist in ensuring more transparent use of the borrowed funds.

No doubt that in future the burden of servicing the external debt will raise, since timing of debt repayment in result of its restructuring is postponed.

Coordination of international organizations providing assistance to Tajikistan for socio-economic development

Tajikistan is provided with development assistance by a large number of international and national organizations from developed countries. The most active are international and regional financial and economic organizations (World Bank, IMF, Asian Development Bank, European Bank for Reconstruction and Development, IDB, OPEC). They provide large-scale financial support to Tajikistan, both refundable and non-reimbursable (loans and grants), as well as technical assistance, pursuing the implementation of deeper reforms (structural, administrative, market, sectoral adjustments), and advisory services. In recent years, the role of missions of the ministries for development and technical cooperation of developed countries, such as USAID, German Technical Cooperation (GTZ), DFID, CIDA, Japan International Cooperation Agency (JAICA), etc.). They also fund some key projects, pursuing a policy of market economic reforms, improving food security through a variety of technical assistance projects in the country. Effective representation of regional economic blocs such as the European Union, EurASEC, CAREC ECO, makes it possible, together with the Government of Tajikistan, to resolve a series of political, economic and social problems. In addition, several organizations that are funded by the Aga Khan Foundation are operating in the country. They are active in different areas, including charity activities and loan provision. The same applies to the Fund Khomeini. The activities of these organizations in Tajikistan are systemic and growing and encompassing new spheres. In recently years, Aga Khan Foundation has become increasingly engaged in the socio-economic development of mountain communities.

In Tajikistan, there are numerous international microcredit organizations that carry out operations either directly by themselves or involve local NGOs as their representatives. In the past ten years, they have achieved a great deal, not only in such areas as microcrediting in order to increase self-employment, and develop micro and small enterprises, but also in disseminat-

ing skills and knowledge on the use of micro and small loans. Thus, such organizations have already managed to make an important contribution not only to improve living standards, reduce poverty and unemployment, but also relieve social tension in the country.

Many international NGOs are operating in Tajikistan in different areas. They provide financial and technical assistance, are engaged in concerted efforts to improve the culture of production, develop market psychology, improve knowledge in foreign languages. Further, they provide training on new technologies in the agricultural sector to raise its productivity through obtaining high crop yields, animal husbandry and processing of products in home conditions, as well as other activities.

In general, the current achievements in Tajikistan are difficult to imagine without the purposeful and regular activities of such organizations, which provide the country a wide range of much needed assistance.

There are still some shortcomings in the activities of international and foreign organizations operating in Tajikistan, such as the lack of appropriate coordination between themselves, the overlapping and duplication of activities. Although there are still some areas and territories of the country left without any interventions. In some areas, several international organizations are actively working at the same time, while in other areas, there are no operational international organizations or agencies. It should be noted that, at the moment, the «Rules of attraction, use, coordination and monitoring of external assistance in the Republic of Tajikistan» are under development and, it is hoped, after their approval, the situation will improve in this area.

Findings and recommendations:

- Increase the role of international financial and economic organizations in upgrading skills of young generation, making them adaptable to country environment and succeeding in the recipient countries of foreign labour.
- Increase the number of new and the recovery of previous jobs for youth.
- Direct the efforts of ILO, IOM and other organizations in legalization of labour migration from Tajikistan, and the protection of the rights and interests of migrant workers by the recipient countries;
- Assist the Government of Tajikistan in diversifying the geography of labour migration from Tajikistan, with an emphasis on the countries where the rights and interests of migrant workers are observed better than in Russian Federation, Kazakhstan and the United Arab Emirates.
- Strengthen coordination with international donor community to create highly productive and wage-intensive jobs in Tajikistan, especially in sectors such as agriculture, industry, tourism, and construction.
- Incorporate perspectives of information and communication technologies in the projections and strategies of socio-economic development at national and regional levels.
- Create additional incentives to attract foreign direct investment for rapid innovation and spatial\territorial distribution of these technologies;
- Ensure that the entire country, especially rural, peripheral areas, are fully covered by a digital mobile network reaching all locations and making it possible to become quickly connected with any geographical point of Tajikistan and the globe.

- Rapidly develop wireless communications technology and related technologies (WiMAX) to improve the availability of radio frequency sector.
- In information and communication technologies, make a strong commitment to reduce tariffs, given that a significant part of Tajikistan's population are poor, and introduce these technologies into the daily life of the poor, as this is regarded as an independent factor towards their exit from poverty and misery.
- Strengthen the institutional approach to the external debt management. To achieve this, the international financial and economic institutions would need to take steps to relieve the debt burden of Tajikistan.
- The government must strengthen the fight against corruption and take steps towards the effective use of externally borrowed resources.
- Businesses or companies should set up the necessary prerequisites for repayment of the external debts at the expense of the profit received as a result of the effective use of the borrowed funds. This is the only approach that would enhance the role of external debt in effective investment of the Tajik economy.
- Change the structure of using external debt. It is necessary to increase the proportion of enterprises and organizations and, accordingly, reduce the proportion of centralized use of debts;
- Take action to reduce the volumes of external debt, which are driven by geopolitical reasons (some bilateral debts are meant;-).
- Ensure full transparency of international organizations operations in Tajikistan. Each organization must download a monthly report on its activities on its website.
- Provide an annual compendium «Foreign Aid Report». The collection should contain objective information about the effectiveness of activities of international organizations and agencies providing assistance to Tajikistan.

The recommendations of the NGO Consultative Meeting to improve development and participation of civil society organizations in order to enforce to implement of the Paris Declaration on Aid Effectiveness and the Accra Action Agenda (held on 7–8 July 2010 in Dushanbe) were as follows:

- Develop and implement a clear mechanism for accountability and control in the form of regular mandatory reports on the implementation of AP and APD by the Government together with development partners. Civil society organizations will ensure public monitoring of fulfillment of such obligations.
- Discuss the feasibility of consolidating legal provisions mandating expertise of laws and programmes in terms of their compliance with commitments to promote human rights, gender equality and environmental sustainability;
- Introduce a compulsory review\expertise of all policies and programmes to assist the country at stage of their design, implementation, monitoring and evaluation for compliance with international obligations to promote human rights, gender equality and environmental sustainability in the light of national culture and mindset.

- Improve mechanisms to ensure quality participation of CSOs, in particular, representing the interests of marginalized and vulnerable groups in the design, implementation, monitoring and evaluation of programmes and projects.
- Move from the direct implementation of development projects and programmes to national implementation (the government and CSOs). It is suggested to introduce an additional indicator «Percentage of projects and programs implemented by national implementing partners from the total number of implemented projects» in a monitoring system on the Joint Country Partnership Strategy.
- Develop a communication strategy on broad public information about the problems, achievements and opportunities for improving aid effectiveness.

Conclusion

When writing this report, the authors were guided by the principle that it is a tool to raise public awareness on the implementation of the tasks declared in 2000 to achieve the MDGs. This report essentially represents the views of the general public, the media, creative unions and members of elected bodies at various levels.

It reflects the major indicative figures that were included in PRS-3 and NDS. These national strategic development papers should be closely and organically linked. The Report sought to ensure the prevention of any kind of conflict between these documents, although this has not succeeded fully for objective reasons; the main reason is the current financial crisis. When the NDS was prepared, few people could assume further expansion of the global financial crisis. The document predicted a sustained and accelerating pace of economic and social development, and improving living standards in long-term prospects. In drafting the PRS-3, it was not fully able to take into account the economic downturn and its all adverse consequences. This report, as far as possible, takes into account not only the global crisis, but also provides details of its current and potential socio-economic impacts.

As noted in previous submissions, due to the global financial crisis, the progress in achieving the MDGs in a timely manner (by 2015) has been sluggish on many fronts, including overcoming poverty, which was predicted by the authors of the report. No doubt, the number of the poor will increase in the next 2-3 years. At the same time, the authors sought to seek and suggest the ways of resource mobilization that could mitigate the negative effects of the crisis. It was therefore suggested to use the vast internal resources of Tajikistan such as rapid development of import-substituting industries, or renewed operation of inter-school training-industrial facilities, as recommended in one of the sections of the report.

The United Nations, the World Bank, the International Monetary Fund (IMF) and many other donors will certainly improve their own coordination and strengthen collaboration with civil society pooling up efforts to address the issues related to the worsening of the food security situation, and environmental and other pressing issues. Such coordination is very important in the context of Tajikistan. The assistance is required for: (i) more intensified and effective use of domestic resources to address the most serious problems of socio-economic development. This question has not been given due attention, although it has the potential to play an increasingly crucial role; and (ii) more efficiently structured and increased assistance from international donors. However, what is necessary to understand with respect to efficiency is the capacity of foreign assistance (especially ODA) to mobilize domestic resources for development and in order to best capitalize on overall benefits and socio-economic outcomes.

The Country Team preparing this report has done all possible to identify potential areas for assistance from international donor community, including qualitative and quantitative components, which certainly will assist external donors to realign the provided assistance in the identified dimensions in order to fulfill the real needs of the country.

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