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NATIONAL HUMAN
DEVELOPMENT REPORT 2014

Tajikistan: access to resources for human development



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Dear reader,

You are welcome to the latest National Human Development Report called Tajikistan: Access to Human Development prepared with the support of the UN Development Program and in close cooperation with the government, civil society and international organizations in Tajikistan.

It is remarkable that this Report is presented during the final year of the National Development Strategy of the Republic of Tajikistan for the period of 2015, which was elaborated in consideration of the Millennium Development Goals for 2015 as well as the Living Standards Improvement Strategy of Tajikistan for 2013-2015. It should be noted that the consolidation of resources and permanent monitoring of the implementation of the said strategic documents on the part of the President of Tajikistan, H.E. Mr. Emomali Rahmon, and the Government of the Republic of Tajikistan allowed for significant poverty reduction and provided a fertile ground for the emergence and development of the middle class.

Since the first years of independence, the republic's social policy focused on human development, equalization of economic opportunities, and improving people's access to modern education, healthcare, social security and social service has been one of the priorities of national development. As a result, the country has made great progress in this regard - poverty has been steadily reduced, and access to education, healthcare and social security services has been improving.

This Report deals with the assessment of human development in the country, changes of the demographic situation and on the labour market, as well as the quantitative and qualitative measurement of access to the key resources of the Republic of Tajikistan (institutional, economic, social and natural).

The Report also provides an assessment of the recent trends in the social evolution of the country, linking national development with human development indicators.

The authors of the Report note that access to economic resources ensures human security encompassing both energy and food security, which eventually exerts a decisive influence on the development of the country. Certainly, the above said does not in any way undermine the importance or the significance of other types of security (transport, information, environmental and other types of security). This Report for the first time presents a comprehensive analysis of the primary economic resources available in Tajikistan, and based on this analysis high-priority resources of great importance for the improved well-being of the population are identified. With that special attention is given to the problems of quality and access to these resources and their efficient use for development purposes.

It is worth mentioning that in the process of the preparation of this Report regional studies in the context of human development were continued with the support from all levels of the government, scholars, experts, and civil society organizations, and a textbook "Human Development" for higher educational establishments was published, which effectively allows a broader access of the population of Tajikistan to information and educational services.

Naturally, there is still a lot to be done to ensure quality access to various government services, but we are determined to do everything in our power so that steady economic development is more and more reflected in the sustainable growth of prosperity of our people. And this, in our opinion, will be a platform for the elaboration and implementation of the future development strategies of Tajikistan with due regard for the principles of human development.

I can positively state that the National Human Development Report Tajikistan: Access to Resources for Human Development containing quite a lot of valuable analytical information will be of use for a broad range of readers, staff of governing bodies of various levels, as well as the civil society of the republic.

Sincerely,
Nematullo Khikmatullozoda

Minister of Economic Development and Trade
of the Republic of Tajikistan

Dushanbe, February 2015



Dear Reader!

The National Human Development Report 'Tajikistan: Access to Resources for Human Development' builds on the tradition of reviewing the key factors contributing to country's actual development progress in the socio-economic area.

This report provides detailed description and analysis of the most recent trends in human development and links the access to resources with human development indicators in the context of the key strategies coming to the end in 2015, such as: Millennium Development Goals, National Development Strategy of the Republic of Tajikistan and the Living Standards Improvement Strategy of Tajikistan for 2013-2015. In view of this, the Report gives a short review of the existing resource capacity of the Republic of Tajikistan.

Difficult demographic situation and problems in the national labour market, given the high unemployment rates and external labour migration, have a direct impact on the economic growth and access to the established potential.

Access to economic resources is of utmost importance for development in general, and it is especially important in the context of the process of human development. The Report includes a comprehensive analysis of the basic economic resources of Tajikistan and highlights those having primary importance for the improvement of the well-being of the population of Tajikistan. While doing so, special attention is given to the problems of access to basic resources and their efficient use for sustainable development.

Yet, in the current situation of the increasingly complicated and intensive global economic processes, the role of governance needs to be enhanced, and it is especially notable during the reforms and crises. Therefore, the review of the public services as well as the major issues and challenges in this regard are of added value.

Tajikistan is successfully overcoming the constraints of the existing transportation problems. At the same time, additional resources, including at intra-regional level, need to be mobilized to ensure energy and food security.

Currently there is an increasing global understanding of the need of assuring economic progress through social development, based on an individual's potential, accumulation of human capital and its utilization for economic growth.

With that, the assessment of human development in the context of access to social services helps to highlight not only the "progress" in provision of equal opportunities, but also to assess the vulnerability level of the socially disadvantaged population groups caused by the limited access to having stable incomes, as well as education and health services.

Given the link between human development and the environment, the Report also includes a section on the access to natural resources. As it is the case in the rest of the world, the concept of sustainable development is gaining wider recognition in the country, while the issues of green development are being prioritised.

Thus, Tajikistan was able to maintain a steady growth of the Human Development Index value, which in 2014 (at year-end 2013) was 0.607 enabling the country to move one step up as compared to 2012 and rank 133rd in the world rating.

During the preparation of previous National Reports the enhancement of partnerships between the United Nations Development Program and the Government of the Republic of Tajikistan were noted, and, first and foremost, with the Ministry of Economic Development and Trade, as well as other ministries and agencies, the local authorities and the civil society. Of special consideration is the fact that almost all other UN agencies, especially the UN Population Fund and the International Labour Organization were also actively involved in and provided substantive contributions to the preparation of the present Report. I am sure that the successful multilateral partnership will continue and strengthen in the future.

I am convinced that the Report will be of use for the Government of the Republic of Tajikistan, the civil society and the donor community and will be used as an evidence base in effectively dealing with the major challenges hampering human development in Tajikistan.

Alexander Zuev,
UN Resident Coordinator &
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Dushanbe, February, 2015



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ABBREVIATIONS

ADB	Asian Development Bank
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral therapy
AWU	Association of Water Users
BBP	Basic benefits package
CCAPs	Climate change adaptation programs
CHI	Compulsory health insurance
CHP	Combined Heat and Power Plant
CIS	Commonwealth of Independent States
CSR	Center for Strategic Research under the President of the Republic of Tajikistan
DGCs	Dust and gas collectors
EC	Energy complex
ERs	Energy Resources
ES	Energy security
EU	European Union
FDPU	Foundation for the Development of Public Utilities
FEZ	Free Economic Zone
FSC	Financial services coverage
GBAO	Gorno-Badakhshan Autonomous Region
GDP	Gross Domestic Product
GRP	Gross Regional Product
HDI	Human Development Index
HIV	Human immunodeficiency virus
HPS	Hydro power station
ICT	Information and communication technologies
IDA	International Development Association
IDUs	Injection drug users
ILO	International Labour Organization
IMF	International Monetary Fund
IWRM	Integrated water resources management
KPs	Key parameters
kWh	Kilowatt-hour
LE	Life expectancy
LSIS	Living Standards Improvement Strategy of Tajikistan for 2013-2015
MDGs	Millennium Development Goals
MW	Megawatt
NDS	National Development Strategy
NHDR	National Human Development Report
NGO / NPO	Non-governmental organization / Non-profit organization
NWS	National water security
ODA	Official Development Assistance
PA / CSO	Public association / civil society organization
PARS	Public Administration Reform Strategy of the Republic of Tajikistan
PFM	Public Finance Management
PHC	Primary health care
PPP	Purchasing Power Parity
RI	Research Institute
RRS	Regions of Republican Subordination
RT	Republic of Tajikistan
SESs	State educational standards
SMEs	Small and medium enterprises
SUE	State unitary enterprise
TDHS	Tajikistan Demographic and Health Survey
UN	United Nations
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VCT	Voluntary counselling and testing
WB	World Bank
WDR	World Development Report
WHO	World Health Organization
WP	Willingness to pay
WTO	World Trade Organization

BASIC FACTS ABOUT THE COUNTRY

Capital	Dushanbe
Area	142.6 thousand square km
Population	8,324.3 thousand people (as of 1 January 2015) rural: 73.4% average annual growth : 2.1%
Form of government	Presidential Republic
GDP per capita	TJS 5,478.5 (USD 1,110.1) (2014)
Human Development Index (HDI)	
including HDI indicators:	0.607 (2013)*
Average years of schooling	9.9 years (2013)
Expected years of schooling	11.2 years (2013)
Gross National Income per capita	USD 2,424 (2013)
Life expectancy at birth	73.4 **years
Poverty rate	35.6% (2013)
Economic growth	7,2% average annual growth rate in 2010-2013 6.7% (at year-end 2014)
Inflation in consumer sector	6.1 % (2014)
Government budget deficit	0.5% of GDP (during the budget process)
Average monthly salary per one worker	USD 164.1 (2014)
Minimum pension	USD 40.5 (2014)
Foreign trade turnover	USD 5,316.2 million (2014)
Net inflow of current transfers	USD 4.1 billion (2013)
Rate of bank deposits to GDP	about 13% (2013)
Rate of bank credits volume to GDP	15.1% (2013)
Net inflow of direct foreign investments	USD 105.4 million (2013)
Global ranking of doing business	166 (out of 189 economies) on Doing Business 2015 the country is among the top 10 improvers with the most reforms making it easier to do business

* Human Development Report 2014. Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. UNDP, 2014, p.162

** Address by H.E. Emomali Rahmon, the President of the Republic of Tajikistan to Majlisi Oli of the Republic of Tajikistan, 23.01.2015, Dushanbe city - <http://president.tj/en/node/8141>

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EXECUTIVE SUMMARY

This report assesses the country's human development in terms of access to key resources such as institutional, economic, social, and natural resources.

Just as with the previous National Human Development Reports prepared with national and foreign experts under UNDP's auspices, this report focuses primarily on Tajikistan's achievements in the context of human development, unresolved issues, and what still needs to be done to ensure the country's and society's advancement. Of special note is the contribution to this report of UNFPA Tajikistan experts and of the ILO National Coordinator's Office.

Chapter 1. Tajikistan's Resource potential as the basis for achieving MDGs and Development Strategies

For more than a decade, a new trend of revitalization and significant change in Tajikistan's national economy has been observed. During this period, many sectors have gradually been emerging from crisis and have shown some positive signs of economic progress.

The Republic of Tajikistan has also participated in global efforts to achieve targets set by the Millennium Development Goals (MDGs) by consistently striving to improve its development indicators. However, the situation in terms of achieving MDG progress can be characterized as inconsistent and includes both apparent achievements (reduction of poverty, infant mortality, achieving universal secondary education) and ongoing urgent problems (maternal mortality, gender inequality at decision-making levels, and degradation of ecosystems).

In conformity with the country's strategic policy objectives, measures have been taken towards promoting economic growth and gradually improving living standards by ensuring energy security and food security, and by developing the country's physical infrastructure and communications networks.

In addition, the relatively high rate of economic growth is also reflected in human development trends. For example, life expectancy at birth increased from 64.8 years in 2000 to 67.2 in 2013. Rates of basic education also grew, including for girls (from 91.3 to 95.2 percent), while gross national income per capita increased from \$900 to \$2424 (in PPP terms). Finally, the human development index value grew from 0.529 to 0.607.

The issue of energy security ranks high among national security priorities. The choice of an energy development strategy for Tajikistan directly affects the economy's sustainability and human development. This chapter deals with key tasks to ensure Tajikistan's energy security in the mid-term, the system of ensuring energy security, as well as public policy for this sector.

With regards to Tajikistan's efforts to support food security, an attempt is made to analyse access to internal resources in relation to external ones in order to ensure food security as an element of national economic security. As a consequence, the following issues are to be considered: the role of agriculture and how it affects Tajikistan's economy; access to land and water as economic resources; challenges in terms of developing agribusiness to ensure food security with due respect to the goals and objectives of national agrarian policy in the context of human development. The following aspects are also emphasized: trends and prospects in food production and consumption; price behaviour and trade dynamics; gender gaps in agriculture; and how to invest in agriculture to safeguard a better future.

Considering population growth and the need to address inequality and poverty issues, as well as the need to support the rise of a middle class, it can be concluded that the country's rate and quality of economic growth are not sufficient. Therefore, the republic needs to accelerate the rate of economic growth by increasing productive capacities while promoting quality development and transformations within the social sector.

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Chapter 2. Demographic trends, employment and access to employment

The population (regardless of age or gender) is both the main producer and consumer of all available resources.

The country's major demographic trends which are characterized by the types and orientation of population growth and their impact on the development of a gainfully occupied population will be addressed in this chapter. In addition, characteristics of the present day labour force will be identified as a result of comparisons between Tajikistan's 2010 census which comprises a multiple factor analysis and previous population censuses and current statistical data.

The challenge that has not been resolved until now is the discrepancy between the high rates of natural population growth and the creation of satisfactory employment opportunities within the context of a transitional economy. The inability to resolve this issue is the main cause of internal and external labour migration and has also contributed to the high level of informal employment which has virtually become an independent sector of the country's labour market. Consequently, this report will focus on analysing employment levels and examining the specificities of formal employment with its problem of understanding the correlation between jobs and labour potential and sectoral employment in terms of its age and gender characteristics. In addition, attention will be focused on the quality of statistics.

The problem of high rates of unemployment among the country's able-bodied population are examined based on an analysis that considers existing criteria and the actual situation of the unemployed. Some types of unemployment are analyzed in terms of age, gender, location of residence, and also within the context of the current job creation policy based on sector and location.

Chapter 3. Access to institutional resources for development

The advantages of possessing various resources depends on the efficiency of the public administration. This is of continued importance and is always relevant for any society. Within the current context of a complex economic transformation, the significance of the public administration increases globally and is of critical importance during periods of reform and during crises. This is why public services are examined in detail within the context of the public administration sector. In addition, the elements and key aspects of reforms aiming to improve the efficiency of the public administration system need to be reviewed.

Public administration cannot be regarded as sustainable until it is supported by a well-functioning local self-governance mechanism. Currently, the process of modernization of local governance at sub-national level is noticeably slower than the development of the national public administration. In view of the above, this chapter deals with the state of local governance and self-governance.

In recent years, a large number of non-governmental organizations have been created almost everywhere in the world. The rapid increase in their numbers is evidence of the importance of establishing continuous dialogue and cooperation between governments and non-governmental organizations. The Republic of Tajikistan is in line with this global trend. Thus, Chapter Three's private sector overview shows the current state of the NGO sector and its role in identifying citizens' needs and in enhancing civic awareness.

Chapter 4. Access to economic resources aimed at supporting Tajikistan's wellbeing

The combination of two situations typical for any economy, namely unlimited needs and limited economic resources lay the foundation for the entire economic system and economic theory. Access to economic resources is of utmost value for development in general, and this is particularly important when considering the human development perspective.

This chapter analyses economic resources available in Tajikistan and focuses especially on those that are of primary significance for improving the well-being of Tajikistan's population. Special attention is given to the problems of access to these resources and their efficient use for development purposes.

With regards to the development of the energy sector, this chapter considers access to the country's resource potential, energy and mechanisms for its effective utilization.

As part of the analysis of challenges presented in the section on Development of the private sector and business (one of the main tasks and the basis for the establishment of the middle class as part of the implementation of the Mid-Term Living Standards Improvement Strategy of Tajikistan for 2013-2015), the influence of business on sustainable development is examined. The chapter also provides compelling arguments that the low level of business activity is equivalent to an underutilized national economic resource and requires the creation of a market infrastructure in line with global standards. This requires the elaboration of a set of measures, which would provide incentives to increase levels of business activity in the country and would also entail the choice of state priorities and the development of mechanisms for social entrepreneurship.

Special emphasis is made on access to communications services through an analysis of the state and scale of ICT use with due respect to improving access to information and communication infrastructure. This approach would make it possible to consider the prospects for the development of an information economy in Tajikistan.

It is also essential to consider access to national financial market services in the Republic of Tajikistan based on the creation of an investment climate and promoting the investment appeal of Tajikistan's formal economy as an important condition to access national financial resources. Cash remittances into the country are viewed as a "driving force" of demand and as an incentive for the development of import-substituting industries with due regards to the development of the financial market. The impact of remittances is also analyzed in this section in terms of national financial sector development.

The section on trade and human development, was prepared based on reports of UNDP Regional Office for Europe and CIS and UNDP's Communities Program in Tajikistan as part of the project "Aid for Trade for Central Asia", stands apart as access to trade services is considered not only as an economic resource, but also as a potential resource for human development.

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Chapter 5. Access to social services in Tajikistan

Reforms are taking place in virtually every branch of the country's social sector. These reforms are the basis for the achievement of the country's Millennium Development Goals. The involvement of the business community and civil society along with the government will be instrumental in achieving these goals more quickly and more effectively.

The tasks of ensuring equal access to social services must be embodied in policy to ensure sustainable development and real social progress. A lack of attention to addressing the problem of equal opportunities could hamper the development of the economy and dramatically aggravate already existing social disparities.

Access is understood as the possibility to obtain a package of social services that meets one's actual needs. With regards to the assessment of people's access to education, healthcare and social protection, this section considers the regional and financial aspects of the problem.

This chapter reveals opportunities and limitations in the access to basic social services based on an analysis of social development trends and current social policy reforms. This approach made it possible to justify national social development and the establishment of priority areas to ensure an inclusive and balanced growth with due regards to gender and regional perspectives.

Chapter 6. Access to natural resources

Tajikistan has large stocks of hydropower resources and fresh water, a variety of mineral deposits, a favourable climate for growing organic products, as well as opportunities to intensively develop ecotourism. These characteristics are compatible with the core criteria for human development within the context of access to natural resources.

However, access to natural resources is still a national stumbling block to development. For example, the low capacities of the country's irrigation system makes it impossible to ensure proper access to water resources. One of the ways to ensure water conservation is integrated water resources management and promoting water cooperation which is critical in ensuring the population's access to clean drinking water.

Despite conditions of land scarcity, agriculture is the main source of subsistence for the rural population which represents more than seventy percent of the population. In this regard, activities to support and consolidate conservation and land rehabilitation, and proper economic use of sub-mountainous and mountainous territories are of utmost importance.

As for the country's sustainable development, it is essential to develop environmentally friendly forms of land use, including broad utilization of renewable energy sources, organic agriculture, and ecotourism. Through the process of advancing socio-economic goals, it is also critical to create the conditions for stable growth by promoting the principles of a "green" economy. This implies the implementation of measures to ensure an interest in a "green" economy at all levels from industry to households. It is important to ensure economic growth based on a reasonable balance of economic interests on the one hand and environmental protection and conservation of natural resources on the other.

An important task for the country is to develop a concept of environmental and economic development which includes an improvement in production and consumption models based on increasing energy efficiency and workforce productivity without creating additional burdens on natural resources and the climate system.

FOREWORD

In the recent decades, economists have increasingly concentrated on the human dimension of economic development. This fact is reflected in all policy and analysis of UN organizations and the World Bank. The UN Development Program (UNDP) has been publishing since 1990 global Human Development Reports. The methods and indicators for measuring human development proposed by UNDP make it possible to perform a comparative analysis of the progress made by individual countries and groups of countries and also to review their economic and social policies from this perspective.

The idea of human development and now we must speak about the idea of sustainable human development quickly gained so much appeal and popularity that more than one hundred countries, including Tajikistan, are currently publishing annual national human development reports.

The fundamental issues arising from these reports naturally form a conceptual basis for other government policy documents.

The concept of human development is immensely multifaceted and offers an abundance of possibilities that can be applied to many different aspects of human life and society in general.

These reports have analyzed such issues as vital basic human needs, dimensions of human security, opportunities for increasing social development by reducing military spending, new areas of cooperation, combating extreme poverty, employment, the impact of globalization, consumption patterns, links between human development and environmentally sustainable development, etc. Thus, the contemporary outlook on gradual social development places the human being not only at the centre of the spiritual sphere of social life which is a traditional approach, but also at the core of the productive relations cycle. This perspective is rooted in the recognition that people are at the starting and end points of socio-economic development. The human or social dimension of such development becomes its dominant principle while the physical, tangible potential becomes the condition for such development.

At present, the new vision of economic development is more frequently linked to people's perception of the concept of "human development". This concept is constantly augmented and is itself also developing.

These Human Development Reports are increasingly utilized by politicians and leaders in formulating their political viewpoints. At the same time, the concept of human development is increasingly recognized by researchers who often refer to UNDP Reports in their studies. Public hearings of national reports are also indicative. From year to year, discussions at such hearings are becoming more and more professional and participants easily use terms, indicators and indices related to human development.

In addition to the above, principles are observed in the preparation of the reports and these are provided below:

- **National responsibility** - NHDRs are COUNTRY-led and COUNTRY-owned. The reports primarily rely on national expertise and reliable current data and provide discussions on such topics as impact outcomes and policy relating to all fundamental principles of human development.
- **Continuity and quality of analysis.** NHDRs adapt basic human development principles and apply them to concrete situations. NHDR results are reliable and can serve as a solid basis for policy design. Along with Human Development Indices (HDIs), NHDRs also gained international recognition. Their influence is grounded in the accuracy of their data and analysis. The Report team view themselves as the custodians of data they gather rather than owners.
- **Cooperation with stakeholders, including preparation.** NHDRs go beyond the academic community to review diverse national potentials; neither group affects the work unreasonably. The process of preparing an NHDR includes and embraces various points of view. The government fully participates as the principal architect of public policy. The involvement of other stakeholders - academia, private sector, workers, mass media and, when necessary local communities is also very important.
- **Ensuring impact.** NHDR stimulates public debate and creates opportunities for political reforms and mobilization of resources. The report is only truly successful when it has an impact and brings about positive change which can be seen and measured.

INTRODUCTION

To reduce inequality and ensure sustainable human development, individuals must have access to diverse resources which are found in the interrelation and interdependence of capabilities and needs of an individual and society. This also contributes to the mitigation of a number of global concerns that humankind faces: addressing hunger and poverty; resolving environmental issues and promoting nature conservation; ensuring a satisfactory population policy, etc. These global problems, which are the key challenges of the 21st century, must be addressed both globally and at the national level and must be commensurate with the nation's actual capacities.

Currently, the key priorities of the international community are poverty reduction and sustainable development.¹ According to World Bank data, a quarter of the population of developing countries still live on less than \$1.25 a day, while one billion of people do not have access to clean and safe drinking water. An additional 1.6 billion people live without electricity and three billion people are deprived of proper sanitation. Finally, a quarter of all children in developing countries suffer from malnutrition.

Supported by international development partners, the Government of Tajikistan has done much in this regard. In particular, it has adopted and implemented National Development Strategies: Poverty Reduction Strategies (2007-2009 and 2010-2012), as well as a Living Standards Improvement Strategy of Tajikistan for 2013-2015. It has also put in place until 2015 Public Administration Reforms Strategy and a Strategy for Public Finance Management until 2018, as well as a Labour Market Strategy until 2020, etc. Another important indicator of reform initiatives is the Republic's Enactment of the National Targeted Research Concept Regarding Human Development, Continued Assurance of Democratic Principles and the Development of Civil Society for 2013-2028.

The concept of human development focuses on disadvantaged people and the overall assessment of development depends on whether their situation changes for the better or for the worse. This is why Tajikistan's Policies and Strategies need to be further refined and targeted in order to ensure a more sustainable and long-term effect on people's capabilities by influencing their incomes and prospects for improving livelihoods, as well as for health, education and other components of the Human Development Index.

¹ World Development Report "Development and Climate Change", 2010, <http://www.worldbank.org/wdr>

CHAPTER 1

Resource potential of the Republic of Tajikistan as the basis for achieving MDGs and Development Strategies

1.1. DEVELOPMENT IN THE NEW MILLENNIUM: 2000-2013

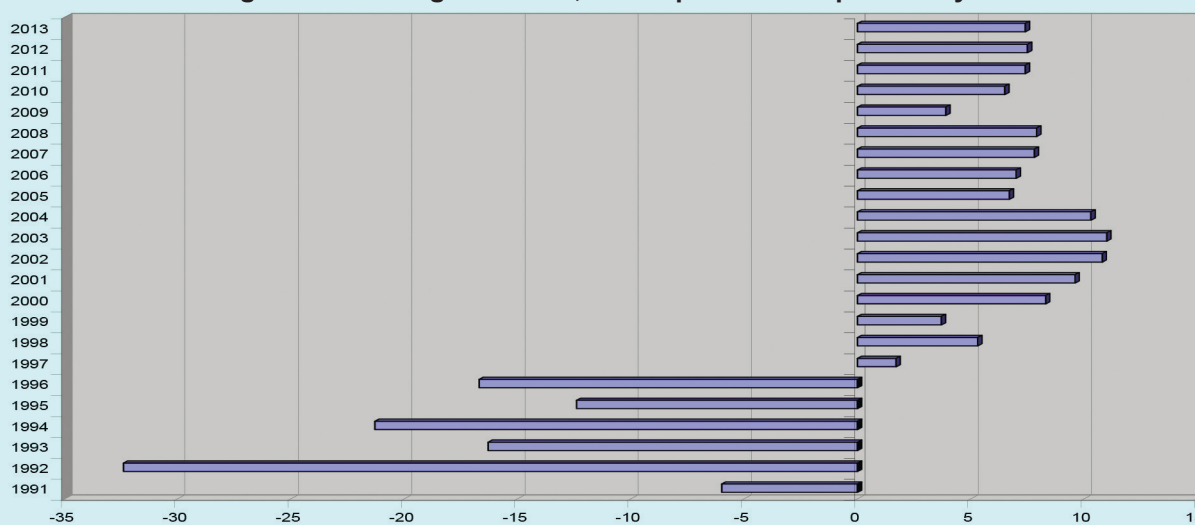
For the Republic of Tajikistan, the beginning of the 21st century has been characterized by gradual advancement toward market transformation, a positive transition to economic growth and support for human development. The basis for socio-economic well-being is following an upward economic development trend. As recently as 2009, GDP growth was relatively low and stood at only 3.9% which to a greater extent was due to the influence of the world's financial crisis, which, in turn, was linked to three other developments:

- lower foreign remittances due to the decline in labour migration. The economic recession in Russia, which is the major external destination for the country's workers, had a negative impact on migrants' employment and revenues;
- reduction of export and budget revenues associated with the decrease in global prices for export goods primarily for aluminum and raw cotton;
- decrease in investment opportunities offered by donor countries and international organizations with regards to the provision of subsidized loans and grants.

BOX 1.1. A BRIEF OVERVIEW OF THE REPUBLIC'S OVERALL ECONOMIC GROWTH RATE

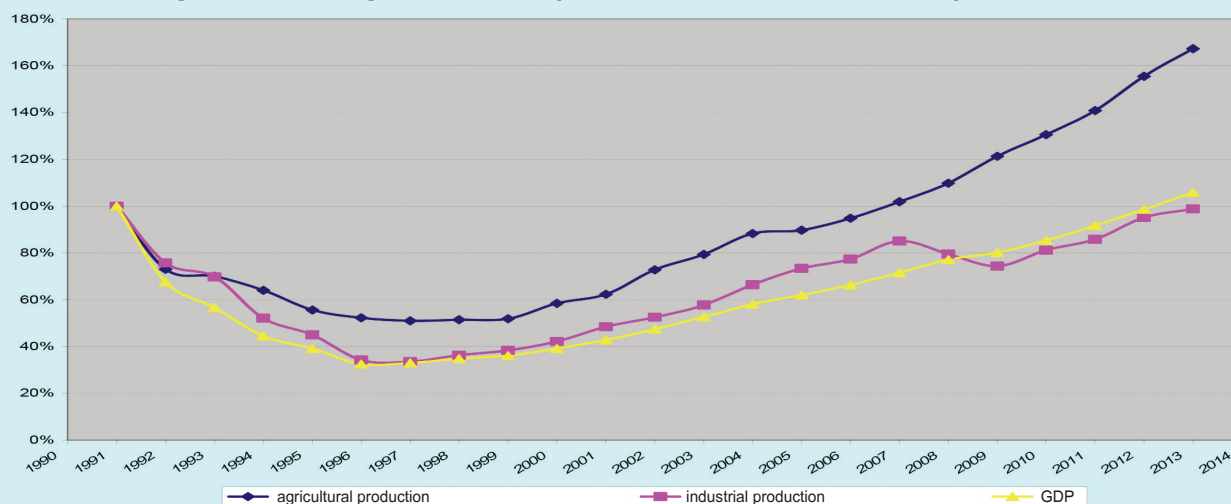
An analysis of national economic dynamics shows two periods: the period of recession until 1996 characterized by depressed levels of production and the period of post-crisis recovery characterized by renewed growth of production volumes starting 1997.

Diagram 1.1. GDP growth rate, % compared to the previous year



During the period between 1991 to 1996, the country's GDP declined threefold. However, in subsequent years GDP growth reached 1991 levels. The multidirectional and multi-sectoral changes in output volumes have been relatively more pronounced after 1997 with gradual growth in agriculture and industrial output instability, especially in the sector's processing branches.

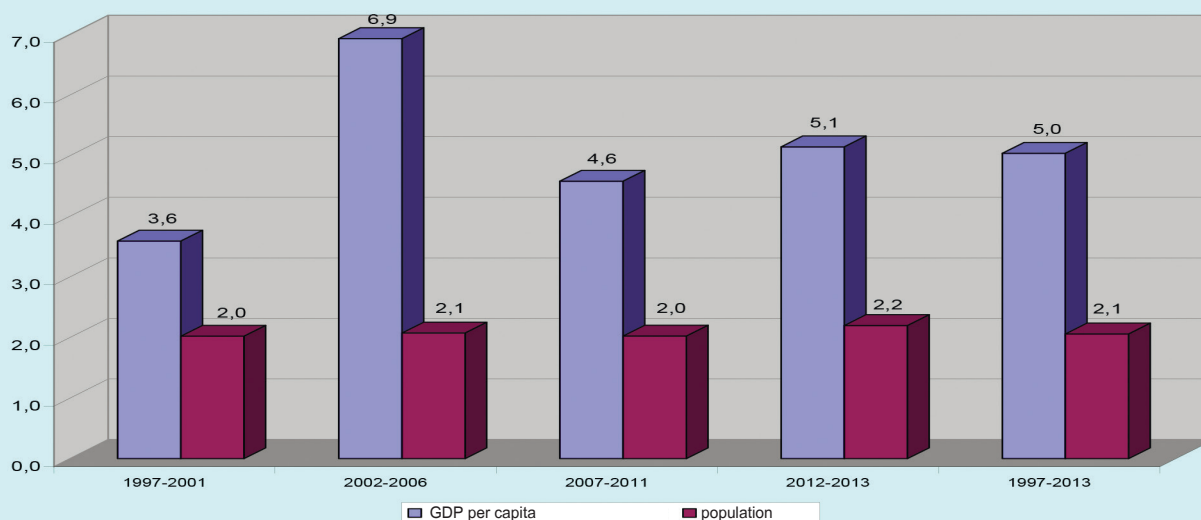
Diagram 1.2. GDP growth and output increase trade-wise, % compared to 1991



The state of the post-crisis national economy is characterized by the development of recovery processes but now with due account for the changed economic environment - an increased significance of external development factors and the creation of market incentives and development mechanisms.

With that the average annual rates of GDP per capita growth now exceed the mean annual population growth rates, which is evidence of the population's improved living standards.

Diagram 1.3. Average annual growth rate, %



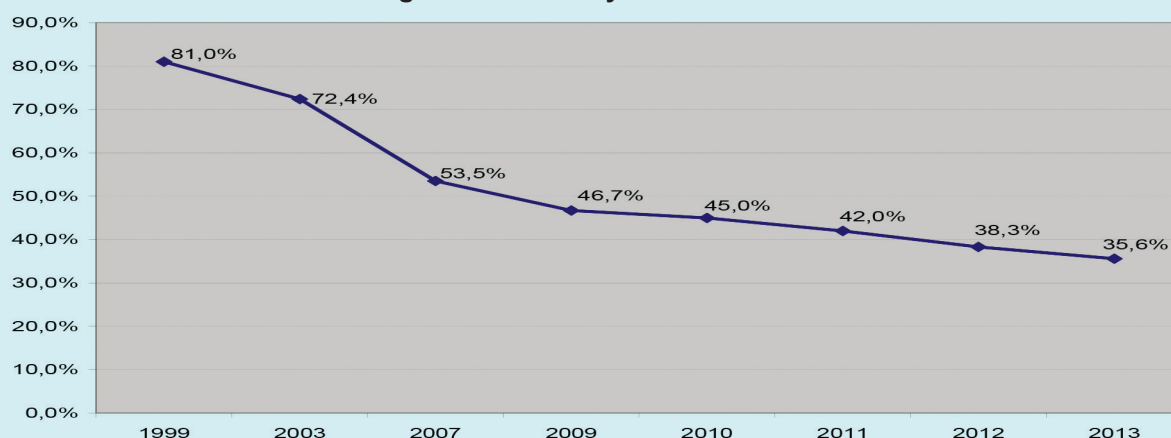
In general, the republic's mid-term macroeconomic policy is focused on reducing inflation and maintaining high economic growth rates in order to generate higher living standards.

The key policies adopted during the last decade, as well as the socio-economic development goals that aim to improve living standards and quality of life are reflected in the National Development Strategy for the period until 2015, as well as in sectoral and regional development programs.

BOX 1.2. IMPROVING LIVING STANDARDS and consequently poverty reduction is recognized as an essential high-priority task for the Tajik Government.

The National Development Strategy for the period up to 2015 defines key development goals, including the creation of a favourable development environment which are to be gradually implemented for ensuring sustainable economic growth and human development. The implementation of strategic goals and national priorities, economic reforms in various production sectors, accomplishment of strategic and policy tasks, as well as measures to safeguard macroeconomic stability resulted in economic growth. According to the most recent studies, the poverty level as a result decreased from 81 per cent to 35.6 per cent from 1999 until 2013.

Diagram 1.4. Poverty reduction trends



In order to ensure efficient implementation of the Living Standards Improvement Strategy of Tajikistan for 2013-2015, the process of poverty reduction will be reviewed with consideration of integrating the poor population to middle class.

Source: Living Standards Improvement Strategy of Tajikistan for 2013-2015

The primary sources of economic growth are as follows:

- implementation of economic reforms, including support to the development of the business and private sector;
- increases in cash remittances from Tajiks working abroad that enhance domestic demand.

The large volume of remittances by Tajiks working abroad stimulated increased personal consumption and, to a lesser extent, increased levels of investment. The share of final consumption is major element of the national GDP structure.

Diagram 1.5. Economic growth and net volume of current transfers into the country

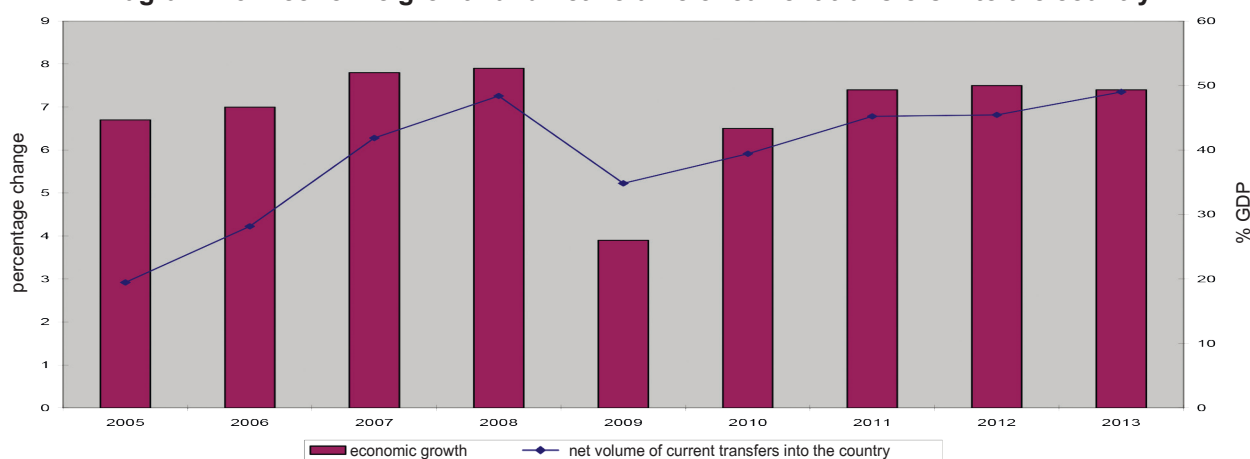


Table 1.1. GDP components (Percentage)

	2000	2005	2010	2011	2012
Final Consumption Expenditure	98,4	107,7	109,5	132,5	127,6
Gross Capital Formation	9,4	13,1	27,2	34,9	26,1
Net export of goods and services	-7,8	-20,8	-36,7	-67,4	-53,7

Structural shifts between GDP components are due to the following processes:

- increased share of final consumption demonstrates a shift in the proportion toward incomes used by households for consumption in order to maintain existing standards of living;
- significant growth by 2013 of net exports of goods and services resulting from a very slight change in the commodity-based economy and an expansion of imports;
- instability and serious variations in the share of gross capital formation against the background of consumption growth without a significant increase of “propensity to save” and more foreign borrowing.

The economy depends to a great extent on cash remittances. The positive impact of cash remittances is as follows:

- they are an important source of currency entering into the republic and the source of financing for the fiscal deficit linked with the current account balance;
- they stimulate domestic demand;
- they mitigate unemployment, ensure alternative employment, and correspondingly contribute to maintaining the required standard of living, ensure a satisfactory access to necessary goods and services, and thereby assist in improving the consumption structure.

The risks related to such dependency are as follows:

- strong dependency on the state and on the economic prospects of one foreign country (labour migration to Russia prevails), which, in turn, depends on the behaviour of energy prices on the global market and has structural development problems;
- cash remittances do not transform into investment and thus the problems with creating sustainable jobs remains against the background of increasing import consumption.

BOX 1.3. THE ROLE OF CASH REMITTANCES IN HOUSEHOLDS' INCOMES

The Centre for Strategic Research under the President of the Republic of Tajikistan conducted a survey of migration in 2012.

The survey findings demonstrated that cash remittances from migrant workers provide on average 56 percent of the income of surveyed households.

The proportion of families whose income mostly depends on remittances from labour migrants stands at 83 per cent. Therefore, the number of families that are heavily dependent on cash transfers from abroad is almost four times as great as the number of families that are not as dependent on such sources of income. The trend of a heavy dependency on remittances from labour migrants has been increasing from year to year. For example, according to the survey conducted by the Centre for Strategic Research (CSR) and the ILO in 2009, only 50 percent of households depended on remittances from labour migrants². In the survey conducted by the Asian Development Bank in November 2007, only 35 percent of households reported that cash remittances amounted to over 60 percent of their income³. The survey also showed that 86.5 percent of cash remittances are used by households immediately and are not deposited as savings in the banking system.

² Cash remittances from migrant labourers in Tajikistan: the potential for saving and investing in the economy and financial products to attract cash transfers / Subregional Bureau for Eastern Europe and Central Asia, ILO. CSS - Moscow: ILO, 2010;

³ Remittances from migrant labourers and poverty in Tajikistan, ADB, November 2007

Considering the constantly increasing negative net export values, economic plans in the near future should be oriented towards finding increasing financing and investment sources. Furthermore, interventions are needed to create conditions for the development of competitive domestic production and for the creation of incentives for the inflow of direct foreign investments.

Changes in the domestic economy are characterized by two main trends: a decrease of the share of manufacturing sector and the growth of the share of services sector.

The inflow of cash remittances and the development of non-manufacturing forms of trade are the reasons why services remained the country's major economic sector which accounted for almost half of the country's gross value added followed by the agricultural sector which makes up one fifth of GDP.

The increase of the services sector share of GDP cannot be interpreted as a key indicator of market economy improvements. The share of the service sector and gradual prevailing domination of services over goods in developed countries was achieved as a result of economic development while in Tajikistan this is taking place in the context of relatively low growth rates in the manufacturing sector.

The increase of the share of the service sector is slightly more related to the growth of market services primarily trade, catering, transportation and communications.

An increase in investments partly through the attraction of private investments can enlarge the resource base for economic growth.

Diagram 1.6. GDP of the republic by industry and sector (Percentage)

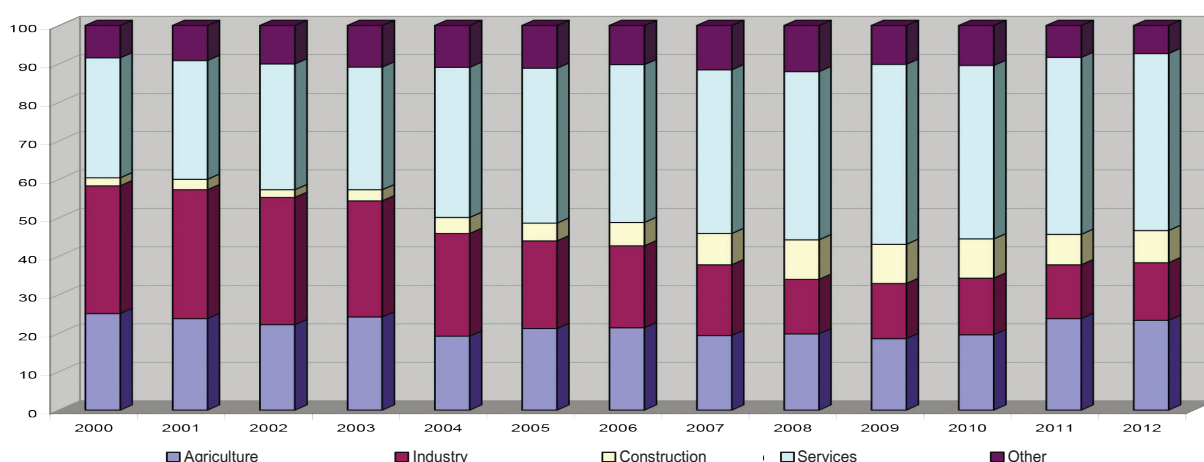
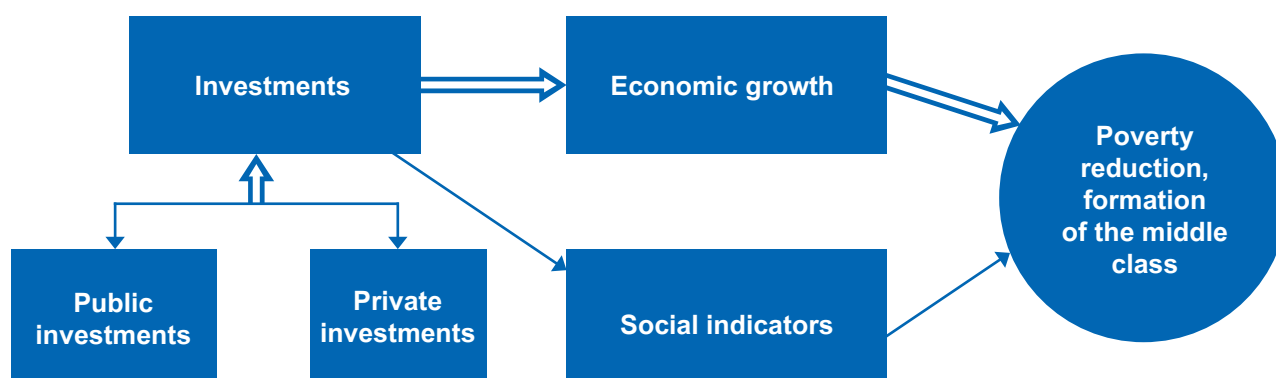


Figure 1.1. Links between investment flows and poverty reduction and improved living standards



At the same time, the enhanced role of domestic sources of capital investment is also important for the country's growth. However, the amount of capital investment attracted so far is not sufficient for structural reforms and for creating reserves for long-term growth.

At the same time, sustaining high levels of investment depend on sources of financing. With regard to the structure of financing capital investments, a significant proportion of such investments comes from public funding of capital formation and foreign investments. The low level of domestic and foreign investments is evidence of the financial imbalance and poor incentives of enterprises for capital investment.

A continued high rate of government spending on investments, which are also associated with the implementation of infrastructure projects necessary to create conditions for development, combined with insufficient incentives for private investments can pose a threat to economic growth due to the need for increasing cumulative tax immunities.

In effect, major structural reforms are needed to make the economy more attractive for domestic and foreign investment.

The country's economy is still vulnerable to shocks. So far, cash remittances flowing into the country have mainly fostered consumption while the unfavourable business environment, insufficiently developed financial services sector and the low

Diagram 1.7. Capital investments (Percentage of GDP)

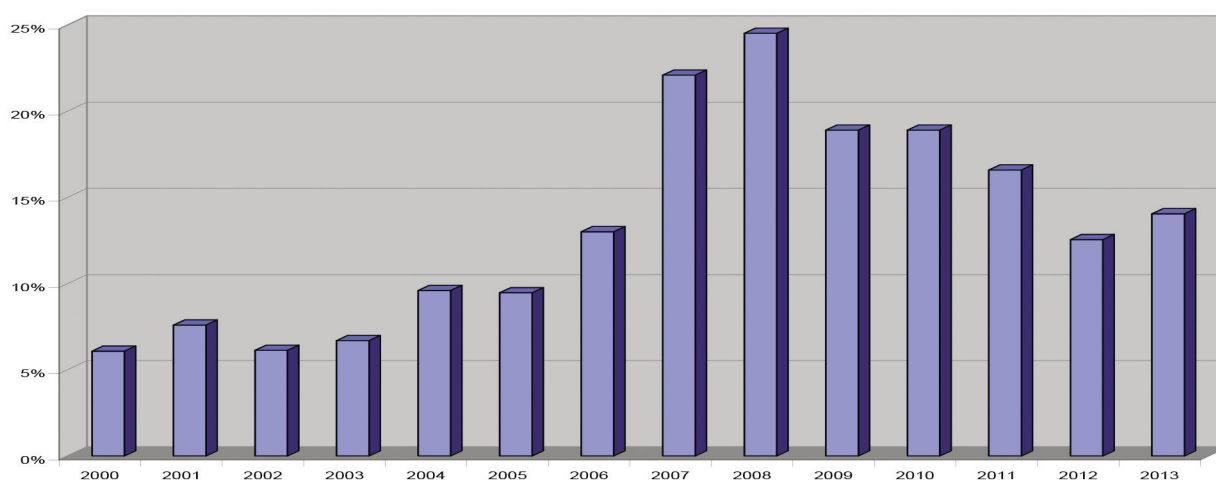
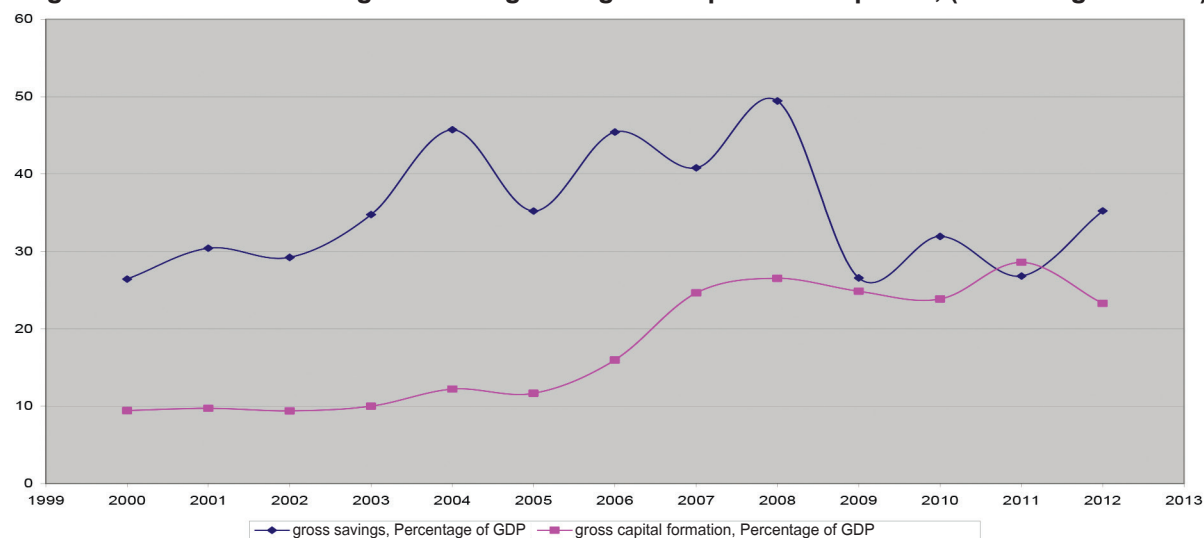


Diagram 1.8. Parameters of gross savings and gross capital development, (Percentage of GDP)



level of confidence in the banking system hinder channelling these funds into effective investment activities.

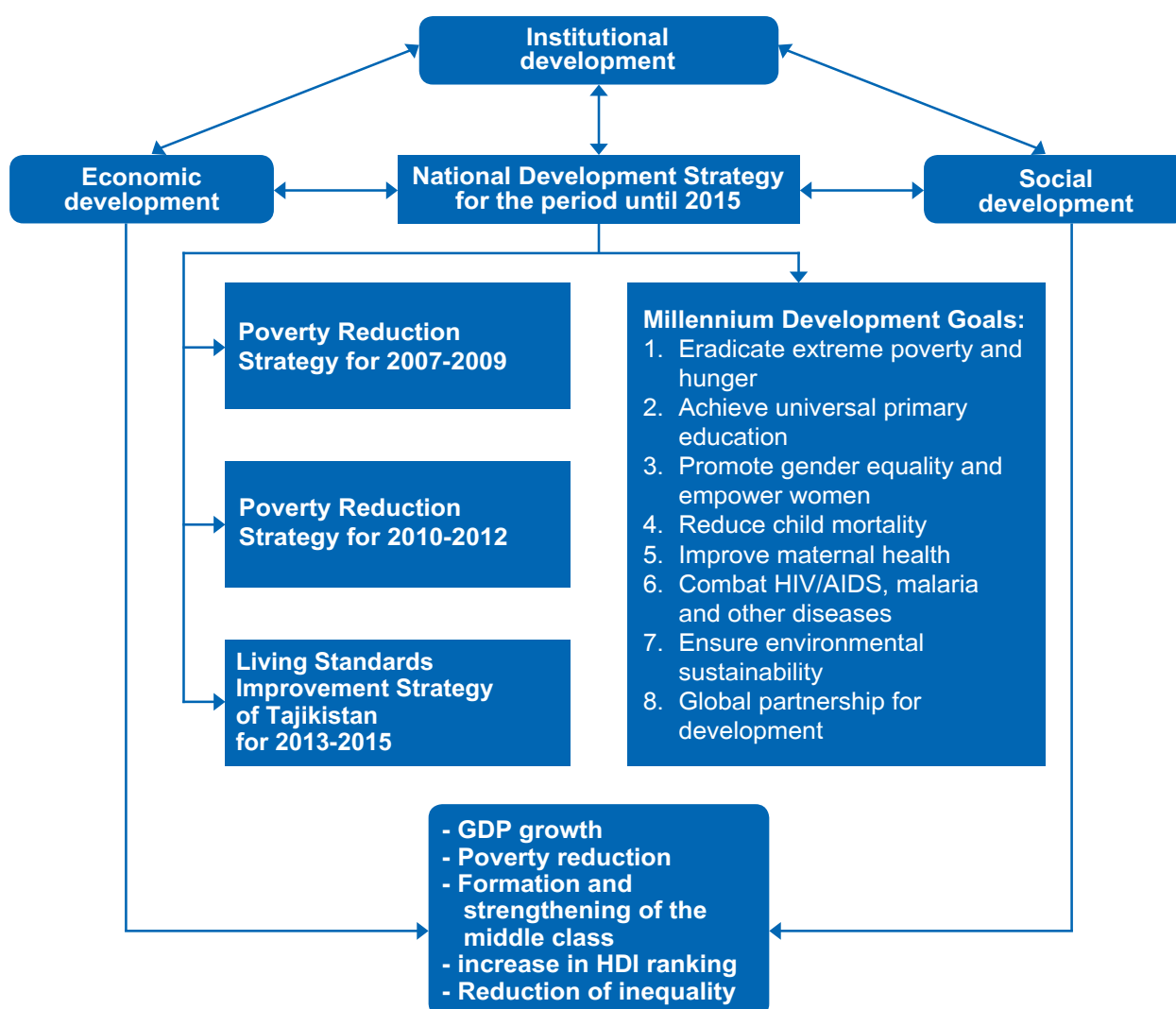
The situation with regards to the country's budget and public-sector debt is still singular and a source of instability because the country's growth pattern is based on cash remittances, a limited export base, high dependency on soft-term financing and a great need for infrastructure development which includes the social sector.

The cost efficiency of the banking sector is still low. As a result of this sector's limited potential and management problems, the number of troubled loans reached its highest ever level at 21.2 per cent of the total loan volume by the end of September 2013.

The financial and business sectors' poor management and accountability hinder the development of the financial sector and the public-sector debt market. Financial control and management systems of state-run enterprises lack consistency and transparency, and this carries considerable fiscal risks. The liabilities of twenty-four major companies are equal to the state budget and the continuing practice of cross-cancellation of debts, tax deductions, as well as other various exemptions granted to publicly owned companies distorts the market and undermines competition.⁴

⁴ Tajikistan: sustainable growth, increasing risks. Report on the Economic Development of Tajikistan No.5, 2014 - World Bank

Figure 1.2. Integration of MDGs and Human Development Concepts into the country's policy documents



Improvement achieving of Millennium Development Goals. In 2000, the Millennium Declaration was adopted which consists of a program of fighting poverty and generally improving living standards. This Declaration features eight development goals which are scheduled to be achieved by 2015.

A high rate of sustainable economic growth is essential for achieving the country's Millennium Development Goals. The links between the country's policy documents, MDGs and human development are quite multi-faceted and sophisticated.

1.2 DISTINCTIVE FEATURES OF DEVELOPMENT

Each country has development peculiarities that must be taken into account.

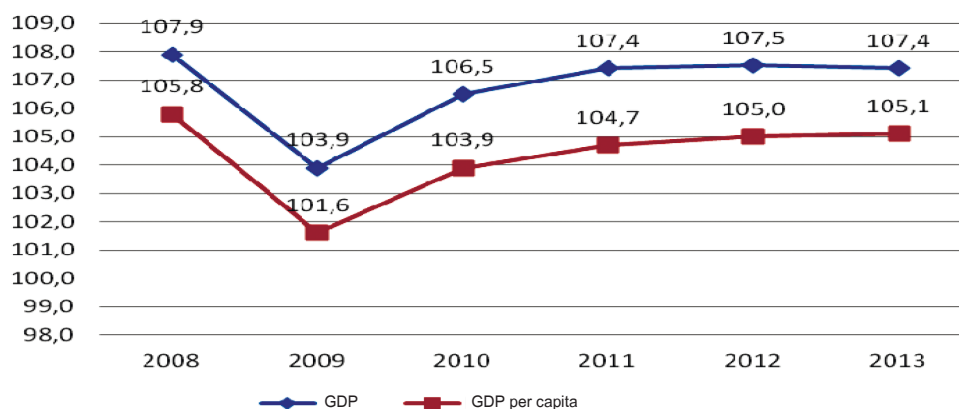
Tajikistan's government and the UN Country Team have consistently worked together to evaluate progress towards achieving the MDGs:

- In 2001, the Poverty Reduction Strategy was developed, and during the course of this work key progress indicators were assessed;
- In 2003, the Report Moving Towards Millennium Development Goals was prepared in which major challenges hampering the country's development and opportunities to meet the MDGs were identified;
- In 2005, a Report was developed on Investing in a Sustainable Future: Assessment of Requirements to Achieve Millennium Development Goals;

- In 2007, the following policy documents were adopted: the Republic of Tajikistan's National Development Strategy for the period until 2015 and the Republic of Tajikistan's Poverty Reduction Strategy (2007 – 2009) in which problems were identified, priority areas were substantiated in line with MDG milestones.
- In 2010, in the aftermath of the global financial and economic crisis, another progress report on MDG achievement was presented and the Poverty Reduction Strategy of the Republic of Tajikistan for the 2010 - 2012 period was adopted;
- In 2012, Living Standards Improvement Strategy of Tajikistan for 2013-2015 was developed and focused on a transition from a poverty reduction strategy to a strategy to improve the population's well-being which corresponds to the concept of sustainable human development. It should be noted that this strategy has a pronounced focus on formation middle class.

The country succeeded in reducing poverty levels from 81 percent in 1991 to 35.6 percent in 2013. Maintaining macroeconomic, social and political stability in the country in many ways contributed to the gradual reduction of poverty. It is assumed that the implementation of the program framework of the Living Standards Improvement Strategy of Tajikistan for 2013-2015 will allow poverty reduction up to the level of 30% and create a sustainable basis for the formation middle class.

Diagram 1.9. Changes in GDP growth rates and GDP per capita growth rate (Percentage)



The country's economy remains vulnerable to potential risks, including new macroeconomic shocks which revealed themselves in the aftermath of the global financial crisis and carries additional responsibilities for the national government in guaranteeing the fulfillment of social development indicators.

New development challenges are "manifested in declining quality of young people's knowledge, increasing unemployment, deterioration in the quality of drinking water and sanitation services, the problems of climate change, and the adaptation of all economic sectors to such changes, as well as the increasingly complex power supply production processes, more widespread malnutrition, quick spread of infectious diseases, greater food insecurity, and so on. New risks have emerged, and the current threat is that over a short period of time all progress achieved will not be sustained. These challenges have emerged mainly since 2008 after the economic and financial crisis and are still in place".

At this stage of development, energy and food security are crucial for Tajikistan's national human security. It is exactly these two components of national security that will have a decisive impact on the country's development. Insufficient electricity supply hinders normal industrial, agricultural and business development and has a negative impact on the non-productive sectors, such as education and healthcare, living standards as well as people's general quality of life and levels of comfort. The unresolved problem of food security [which in addition to the mere availability of food supplies includes issues of providing the population with organic and healthy foods according to scientifically based nutritional standards that take into account gender, age, working conditions, etc., as well as access to clean drinking water, sanitation and healthcare] are among the principal causes of unemployment and, consequently, the migration of labour which represents roughly one third of the country's able-bodied population. Certainly, the aforementioned issues do not in any way undermine the importance or the significance of other types of security: transport, information, environment, etc.

Energy security. The issue of energy security (ES) ranks high among national security priorities. The strategic decision to support the development of the country's energy complex (EC) directly affects the national economy's sustainability. Analysis of Tajikistan's current national economy and its energy sector provides evidence of the increasingly negative impact of threats to the country's economic and national security. This is not only related to the EC's increasingly important role in the country's economy but is also linked to sectoral crisis. The EC, like the economy as a whole, has been suffering serious hardships recently and cannot be described as a stable sector. There is an accelerating trend of increasing dependency on the import of energy resources while restrictions continue with regards to the export of seasonal electrical power.

Limited access of the country's growing population to Energy Resources (ERs) is at the root of the current global energy problems. According to UNFPA data, the world's population has been doubling every 23 years since 1950. As for Tajikistan, according to the 2010 population census, the republic's population numbered more than 7.5 million citizens. Population numbers directly influence energy demand as the greater the population, the more energy is needed. In addition, per capita energy consumption is of great importance. For example, 49 percent of the increase in world energy demand between 1890-1990 was due to population growth, while the remaining 51 percent was associated with increased per capita energy consumption.⁵ There is also a backward linkage in that energy strategies and energy consumption patterns are reflected in population growth rates by influencing the number of wanted births in families and the so-called "cost of childbirth". Current electricity tariffs at 2.3 cents/kWh are considered the lowest in the world. It is worth mentioning that the share of electricity expenditures in relation to overall household expenses (less than two percent) is lower than in the Republic of Kyrgyzstan, Moldova, Armenia and other CIS countries⁶. World Bank experts conducted a survey of consumers' willingness to pay (WP) for electricity, and the following averaged

⁵ Goldemberg J. and others "Basic Needs and Much More With One Kilowatt Per Capita", 1988, Ambio.

⁶ Energy Crisis in Tajikistan during the Winter: Alternative Options to Balance Supply and Demand. World Bank, 2012.

BOX 1.4.**ENERGY SECURITY
AND ENERGY INDEPENDENCE**

Energy security is one of the major components of National Security (NS), because energy is one of the fundamental conditions determining the life of modern people, one of the key factors of production and the functioning of the society in general. The analysis of literature shows there are several approaches to defining ES. For example, the World Energy Council (WEC) proposed the following definition of ES: “is the confidence that energy will be at one’s disposal in the amount and of the quality required under given economic conditions”.

One can say that: ES is the situation in which citizens, the state and the economy are protected from the risks of energy scarcity (externally or internally caused) as compared to their justified needs with affordable fuel and energy resources of acceptable quality in normal conditions and during emergencies, as well as when they are protected from disturbances in the continuity of fuel and energy supply.

The concept of energy independence (EI) is closely related to ES, and these two terms are very often confused or are considered synonymic. Energy independence is one of the principal components of ES and characterizes the ability of a country (region) to do with their own resources in case of the loss or reduction of external supplies of fuel and energy.

The Tajik Government declared energy independence one of the priority areas of its economy strategy. However, international experience shows that ensuring energy independence is a strategic and a multidimensional task, which requires focused policy plus enormous resources and a lot of time.

WP values were obtained in the context of the predicted unmet demand for electricity during future winter seasons within the framework of the programs aiming to develop the energy sector:

- For the residential sector: 4.6 cents for a consumed kWh.
- For the group of consumers not related to the residential sector: 10.4 cents for a consumed kWh. The country’s average weighted WP value for the highest level of electricity consumption amounted to about seven cents for a consumed kWh.

In other words, the current tariffs represent approximately thirty percent of the cost that consumers pay for electricity they consume this causes excessive consumption.

There is also a correlation between energy and food security. Recently the country once again faced problems of malnutrition. Although since 1997 there have been positive changes in Tajikistan’s agricultural sector, improvements have so far only become evident in the volumes of agricultural output while productivity (crop yield) remains low. Many farms are, in fact, loss-making. To a great degree, the problem of malnutrition is linked with a shortage of adequate energy supplies for the agricultural sector which employs a considerable segment of the country’s population.

The share of arable land in Tajikistan has constantly diminished, particularly land used for irrigation farming. If in 1990 the total area of irrigated land per capita stood at 0.11 hectares, by 1998 that number dropped to 0.10 hectares. Meanwhile, in 2012 this value declined to 0.09 hectares⁷. Reductions in the total amount of irrigated land per capita occur due to natural population growth and degradation of land resources caused by the lack of electricity, fuel, as well as fertilizers necessary to maintain the fertility of the soil.

⁷ Data from the Land Inventory for respective years.

BOX 1.5.**WILLINGNESS TO PAY INDICATOR**

The willingness to pay (WP) indicator is the maximum amount that consumers are ready to pay for electricity.

Despite the fact that raising tariffs up to the WP level (starting from the current level, which is 2.3 cents/kWh up to 7 cents/kWh) is an effective method of reducing need for investment into new power generating facilities, it requires a thorough consideration. Even in the case of gradual increase of tariffs in 2014 - 2025 (11 years) annual increase will amount to about 11 per cent, which will generate financial pressure on households' budgets. Proper tariff policy requires a set of supportive measures, which envisage the management of demand for electricity at the consumer market in order to reduce electricity consumption and mitigate the impact of the growing tariffs on the total households energy consumption.

Source: Energy Crisis in Tajikistan in the Winter Season: Alternative Options to Balance Supply and Demand. World Bank, 2012

The key energy problems contributing to sustainable economic development of the country are caused by:

Regulatory framework requires improvement:

The existing legislative and regulatory framework in energy sector still restricts opportunities for its development, prevents competition and does not allow liberalization of the sector's services. The current regulatory framework allows for non-observance of the principles of objectivity, openness, equality and lack of discrimination.

Depreciation of fixed assets and lack of financial resources to support the operations and development of energy providers

A common problem for all Tajik energy providers is the obsolescence and physical deterioration of infrastructure and facilities inherited from the Soviet Union: the lifespan of power plant equipment, electric power distribution systems and switching stations, and gas pipe-lines has expired long ago. Use of obsolete equipment results in additional maintenance costs. Quality repairs to such equipment are impossible due to the lack of financial resources, poor repair facilities and a

lack of competent specialists. The deterioration of energy providers' financial position, which can be attributed to lower actual demand and a constant increase of non-payments by consumers for the supplied energy resources, considerably reduced investment potential in EC plants and also reduced opportunities for attracting funding through loans. The role of internal private and foreign investments is also absolutely insignificant due to the increased risk of capital spending.

Low current tariffs. Currently fuel imported into the country is sold to consumers at market prices, while the published electricity tariffs and those currently in force are too low and do not cover the costs for its generation and transmission. Electricity tariffs were established without due regard for the requirements of a market economy and did not foresee the compensation of all costs, including long-term marginal costs. Today the Tajik Government recognizes the need to establish electricity tariffs that will guarantee recovery of all costs. As a result, the action plan for the gradual introduction of new tariffs has been implemented. This has been in place since 2003.

Poor collection of payments for services provided.

The country has long faced the problem of debts caused by the mass non-payment of energy bills by ordinary consumers. This is first of all due to imperfections in the regulatory framework which governs the relationship between energy providers and customers, as well as an inability to pay, which is characteristic of the majority of consumers, including members of the general public.

Lack of involvement of the private sector in the development of the energy sector. The successful implementation of an investment program for the reconstruction, modernization and development of the energy sector, which lacks its own sources of funding, depends on greater involvement of the private sector. The private sector's engagement assumes partial privatization of the existing infrastructure and the development of a public-private partnership within the sector.

BOX 1.6.**A SAMPLE MODEL OF PUBLIC-PRIVATE PARTNERSHIP**

Pamir Energy Company which received funding from IDA, IFC (World Bank Group) and the Government of Switzerland established an exemplary model of public-private partnership to supply electricity to the most remote districts of the eastern part of the country using domestic infrastructure for the generation, transmission and supply of electricity. Thanks to the project, well-established and sustainable electricity generation was ensured, plus Pamir HPS is now able to supply electricity to several villages in the neighbouring Afghanistan, although only to a limited extent. All above mentioned projects were implemented with considerable foreign investments into the energy sector.

Source: Report on the Partnership Program of the World Bank Group and the Republic of Tajikistan, 2013

Wasting energy, low energy efficiency and a lack of energy conservation programs.

In view of the current lack of strategic investors, the implementation of cost-intensive investment programs for the construction of new HPSs should be postponed and instead the implementation of a national energy saving program should become a priority to ensure a more efficient use of available resources. The efficiency of energy saving projects is evident: the investment cycle is up to 1.5 years with a payback period between 1.5 and 2 years. As a result, the costs of energy saving are two times less than the costs associated with generating an equal amount of new energy by an electricity supplier.

Lack of qualified specialists. Certain socio-political events have had a negative impact on the energy industry's human resources. A considerable number of skilled professionals have emigrated from the country. Furthermore, the critical situation with respect to the training of young professionals is of concern. Educational institutions suffer from a shortage of highly qualified academic and teaching staff, as well as poor facilities. Meanwhile, training professionals abroad require considerable funding.

In view of the above, safeguarding energy supplies must become one of the government's priorities focused on energy efficiency, energy saving and expansion of regional partnership.

Restoring and developing parallel operations of Central Asian energy systems and expanding these to neighbouring countries (primarily to Afghanistan and Pakistan) will make it possible to save resources and energy for all participants through the following technical improvements:

- hourly peak and weekly (thanks to the alternate days off) differences in the capacity of individual countries covering an area of seven million square kms with a population of over 350 million people;
- differences in the seasonal energy consumption peaks in the northern (winter) and southern (summer) parts of the region;
- reduction of the region's absolute standby power and, consequently, in each individual country.

According to other calculations made by the Turkish Corporation for Electricity Generation and Transmission (TEAS), parallel operation of the energy systems of the countries in the region can ensure the saving of \$13 billion.

The creation of a unified regional electricity market will automatically exclude inefficient use of hydropower resources and the current phenomenon of idle discharges coming from the Nurek and other hydro-electric power stations. According to estimates, the latter could ensure an annual increase of electricity production by Tajik power plants of 1.5 bln. kWh, i.e., an amount that would almost cover half of the current deficit.

In comparison to Serbia, Estonia and the Republic of Belarus, Tajikistan is considered a country with a medium energy-output ratio (0.20 - 0.30 kgoe / GDP) at the level of 0.21 kg oil equivalent / GDP. Tajikistan's energy efficiency indicators are presently better in comparison to other Central Asian countries and are in the range of 0.25 - 0.73 kgoe/GDP⁹. Two relatively recent publications are dedicated to a detailed analysis of Tajikistan's energy efficiency challenges:

- Tajikistan: In-depth Energy Efficiency Review, Energy Charter Secretariat, 2013.
- Tajikistan's Master Plan for Energy Efficiency. Efficiency of Using Energy for Economic Development and Poverty Reduction (UNDP 2011)

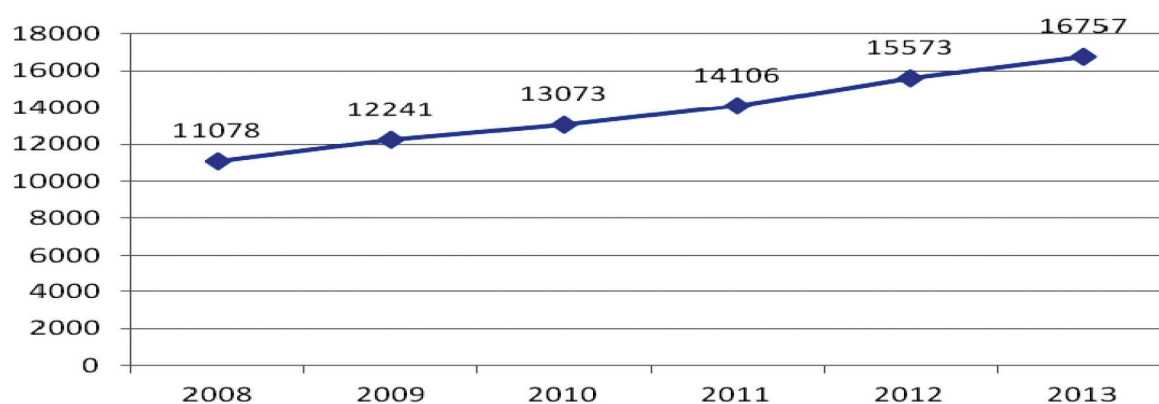
Energy efficiency is an essential component of poverty reduction. Thus far, energy efficiency has been given little priority despite the existence of the law on Energy Saving adopted in 2002. Energy efficiency should primarily be considered as an instrument to improve the quality of services, as well as living and labour standards. At the same time, efficient use of equipment, materials and practices will reduce energy demand and the need for secondary energy sources⁹. A new law “On energy efficiency and energy saving” was adopted in Tajikistan on 9 September 2013. It is expected that the law will establish a corresponding regulatory and organizational framework and will contribute to the introduction of energy efficient materials, equipment and technologies. The law contains proposals regarding the introduction of mandatory energy audit practices, the creation of procurement procedures, including energy efficiency criteria, requirements regarding energy consumption in buildings and household appliances, and others. The law also envisages the establishment of a National Fund to promote renewable energy sources, energy saving and energy efficiency.

Food safety. Agriculture has a great influence on the Tajik economy and represents twenty-three percent of the country’s GDP. Taking into account the variability of prices at product and commodity markets and the continuing energy crisis, the agricultural sector is currently the best opportunity for improving the population’s standard of living and its well-being, especially for the almost seventy percent of the population living in rural areas and

whose incomes are directly or indirectly linked to agricultural production.

The resource base for Tajikistan’s agricultural sector is characterized by a limited area of arable land, a great dependency on irrigation for crop production, as well as large areas of perennial pastures. Out of 4.1 mln. ha of agricultural lands, there are only 830 thousand hectares of arable land, which is equal to 0.11 hectares per capita of the rural population¹⁰. Approximately eighty five percent (720,000 ha) of arable land is irrigated, but currently only 515,000 hectares are being used due to the deterioration of the irrigation and drainage infrastructure, paludification and soil salinization. The principal cultivated crops are wheat, cotton, fruit and vegetables. Fodder production and the state of local pastures affect animal production to a great degree. The available 3.3 million hectares of perennial pastures increase pressure on arable land even more, especially when one considers the limited supply of arable land. However, this being said, Tajikistan possesses sufficient resources and potential to develop diversified commercial farming based on the production of cotton, grain crops, fruit, vegetables and animal products. Tajikistan is greatly affected by various external factors, such as an increase in food prices, which enhances the food instability of households. Increased fuel and lubricant prices are also a cause for concern as they have started to endanger the recent modest progress made by farmers. Therefore, the implementation of measures to remove existing barriers to develop agricultural production and to reduce the sector’s vulnerability with regard to

Diagram 1.10. Changes in agricultural production at 2012 values, million. TJS



⁸ The database of global development indicators, the World Bank, sample collection of 10 August 2012.

⁹ Master Plan of Energy Efficiency for Tajikistan. Efficiency of Using Energy for Economic Development and Poverty Reduction. UNDP 2011.

¹⁰ Data from the Land Inventory 2012

external negative phenomena can have a great positive impact on economic growth and poverty reduction.

Growth rates in agriculture are much lower than growth rates in the economy in general. From 2008 to 2012, the agricultural sector provided fourteen percent of the country's total economic growth. Growth during this period was achieved through the reorganization of land, liberalization of the internal cotton market and the writing-off of debts of the cotton growing farms. Most collective farms were replaced with over eighty-five thousand small private farms. The development of the agricultural sector also had a great impact on poverty reduction, as seventy-seven percent of Tajikistan's poor population live in rural areas. Of the country's four regions, Khatlon Region is the most important for the agricultural sector's development because it accounts for about forty-five percent of the country's total agricultural gross output. Sughd region follows with a production of thirty percent of gross output while the Region of Republican Subordination stands at twenty percent and Gorno Badakhshan Autonomous Region - GBAO produces five percent of the country's output. Following the successful implementation of the Government's Resolution of # 111 "On

economic freedom", smallholders were permitted to grow crops of their choice and sell their products wherever they believed their produce was needed and without any interference from the authorities. The above reforms have been important steps to secure economic self-reliance and transparency and have promoted further private sector development and economic growth. Tajikistan's government demonstrates a great commitment to these reforms and with several development partners continues to work on its agricultural sector development strategy. However, the pace of reform to improve agricultural productivity should be accelerated to ensure growth.

Despite these recent improvements, there are still many opportunities to increase the productivity of various crops and animal production through more efficient crop cultivation processes, a more intensive use of farming industry methods, and - what is most important - modernization of irrigation systems¹¹. Overall indicators describing the agricultural sector for the last 12 years are provided below in two tables.

¹¹ Report on the Partnership Program of the World Bank Group and the Republic of Tajikistan, 2013

Table 1.2. Agricultural production, in thousand Tajik somoni (TJS); in permanent 2000 prices

	1990	1995	2000	2005	2010	2011	2012	2013
Production - total:	571,411	675,097	715,803	987,330	1 179,121	1 273,268	1 405,687	1 512,519
Crop production	384,095	512,138	594,192	888,353	1 160,870	1 253,740	1 384,264	1 489,468
Animal production	187,316	162,959	121,611	98,977	18,251	19,529	21,423	23,051

Source: Statistical Agency under the President of the RT

Table 1.3. Production of key agricultural crops (thousands of tons)

	1990	1995	2000	2005	2010	2011	2012	2013
Raw cotton	842	412	335	448	310	416	417	393
Grain crops	318	249	550	935	1261	1098	1232	1393
Sweet corn	85	19	38	156	151	155	175	175
Fodder corn	1,222	436	226	339	915	794	851	955
Rice	29	24	82	62	77	77	82	78
Potatoes	207	112	303	555	760	863	991	1116
Vegetables	528	491	354	718	1143	1242	1342	1491
Fruit	220	149	169	148	225	263	313	328
Grapes	190	96	110	91	124	155	167	175
Hay	1,521	931	290	219	409	350	642	630

Source: Republic of Tajikistan's Presidential Statistics Agency

Despite the aforementioned growth rates, the markets to sell agricultural products remain underdeveloped which is a restraining factor to increasing farm production. Poor links between sales and markets, low economy due to the growth of production, insufficient access to loans and barriers hampering business creation and expansion - all these factors limit demand for agricultural production on the part of market agents. Solutions to these issues will require a shifting of priorities in the sector's development and will require more focus on developing the private sector. The measures to commercialize agriculture must be prioritised.

One of the most important problems in Tajikistan's present-day economy is food security. This is primarily due to the development of a strategy to protect state interests which includes: maintaining social stability, meeting the needs for nutrition, eliminating the country's dependence on food imports, which requires the development of domestic food production; designing a balanced export and import structure and creating agricultural reserves to stabilize food supplies, etc. Food security is an important component of the state's national and economic security.

The concept of food security originated in the 1970s and it acquired with time several meanings. According to estimates, there are approximately two hundred definitions and four hundred and fifty food security indicators.¹² The most widely used definition of food security is that of the United Nations' Food and Agriculture Organisation (FAO): "Food security at the individual, family, national, regional and global levels exists when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life"¹³. This definition indicates the following aspects of food security¹⁴:

- **Availability:** Availability of sufficient amounts of food of proper quality supplied through internal production or imports (including food aid).

- **Access:** Access of an individual to sufficient resources (social rights) for buying proper food to ensure a nutritious diet. Social rights are defined as the range of all goods that a person has the right to dispose with due account for the legal, political, economic and social aspects of the society where this person lives (including traditional rights, such as access to collectively used resources).
- **Utilization:** Utilization of food through proper nutrition, pure water, sanitation and healthcare to achieve nutritional well-being, when all physiological requirements are met. This highlights the importance of non-food inputs for food security.
- **Stability:** To ensure food security, a country's population, a family or an individual must have access to proper food at all times. Access to food must not be put at risk as a consequence of unexpected shocks (for example, economic or climate crisis) or cyclic events (for example, seasonal food insecurity). Therefore, this concept of stability can refer to both availability of and access to food.

According to this definition, Tajikistan is considered a chronically food insecure country. The Republic's food security policy is currently limited in terms of increasing the physical availability¹⁵ of food and, partially, its stability¹⁶. Households are major suppliers of food and a source of subsistence for buying food on the markets for around 80 per cent of the rural population¹⁷. A safe and nutritious food supply is essential for good health. The Joint FAO/WHO Declaration on Nutrition 1992 states that "...access to nutritionally adequate and safe food is a basic individual right".

According to FAO classification, individuals consuming 1,520 calories a day belong to the category of "starving", while consumption of 2,150 calories per day is classified as marginal for hunger and malnutrition. A nutrition analysis of the Tajik

¹² FAO. 2002. The State of Food Insecurity in the World 2001. Рим; Сэйдж К. "Продовольственная безопасность", в Пейдж И. и Редклифф, М., Безопасность человека и окружающая среда – международный сопоставительный анализ (Эльгар, 2002), 128, 129.

¹³ FAO. 1996. The Rome Declaration on World Food Security and the World Food Summit Plan of Action. World Food Summit 13-17 November 1996. Rome.

¹⁴ Institutional, political and legal framework of Tajikistan's food security. Food and Agriculture Organisation of the United Nations, Rome, 2008.

¹⁵ The Government of the RT supports availability through increased agricultural production and food production.

¹⁶ The Government of the RT promotes stability through price adjustment and sales from government reserves.

¹⁷ DCC-GoT Initiatives: February 1, 2014.

population's diet reveals that food is increasingly vitamin deficient, lacks micronutrient and macronutrient elements while fewer carbohydrates are consumed in the form of vegetables, berries and fruit. The availability of animal products, especially meat and eggs, is insufficient. At the same time, more bread and baked goods are consumed. Vulnerable groups of the population also lack sufficiently nutritious foods.

One of the recent detailed national surveys on nutrition was conducted in 2011 at the initiative of the Ministry of Health,¹⁸ provided evidence of a chronic child malnutrition across the entire country.

This table shows that in 2006 the prevalence of chronic malnutrition of children ages 6-59 months in Tajikistan stood at 20.7 percent. In 2008, this number rose to twenty-two percent. The greatest prevalence of chronic malnutrition (21.9%) was found in Khatlon Region and the RRS while the lowest stood at eighteen percent and was observed in GBAO. These results are confirmed by a number of other surveys and reviews conducted in the framework of projects by international donor organizations, including the Tajikistan Demographic and Health Survey 2012 (TDHS), which was carried out in 2012 by the Statistical Agency under the President of the Republic of Tajikistan.¹⁹ One should, however, note that according to WHO data²⁰, the prevalence of chronic malnutrition in Central Asia (25%) is lower when compared to Southern Asia (>40%) and the world's average.

¹⁸ Organization of the monitoring system and malnutrition estimation among vulnerable groups of Population of Tajikistan. Development of the addressed nutrition support mechanism. Republican Center on nutrition issues of the Ministry of Health of the RT. Dushanbe, 2011.

¹⁹ Tajikistan Demographic and Health Survey 2012 (TDHS). Statistical Agency under the President of the Republic of Tajikistan, Ministry of Health of the Republic of Tajikistan, MEASURE DHS ICF International. 2012.

²⁰ The WHO Global InfoBase, <https://apps.who.int/infobase/>

BOX 1.7. PROTEIN-ENERGY MALNUTRITION

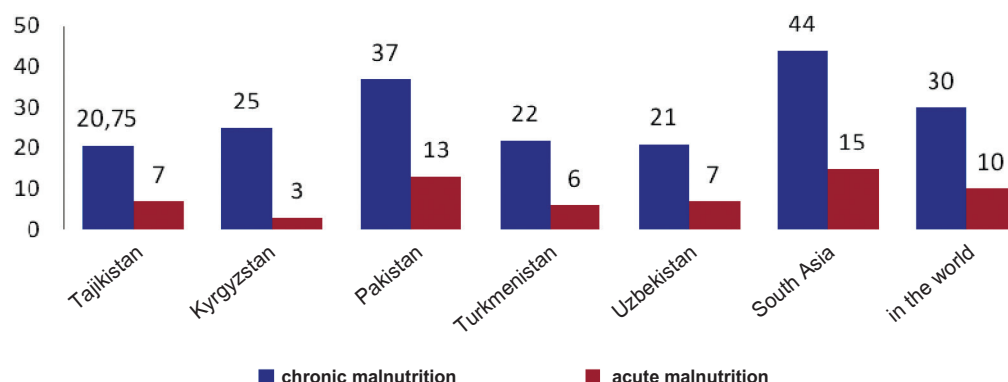
- The prevalence of protein-energy malnutrition (PEM) among women of fertile age in the Republic of Tajikistan is 11.2%. According to the WHO recommendations, this result is considered unfavourable for public health. The highest level of PEM among women is observed in GBAO.
- PEM is widespread among women of all ages. The lowest PEM level (7%) was identified among women aged 15-19, and the highest (15%) was observed among women aged 46-49.
- Over 5% of children in Dushanbe and RRS, Sughd Region and GBAO suffer severe chronic malnutrition.
- The least level of the prevalence of chronic malnutrition (9.2%) is observed among children aged 6-11 months, and the highest level (35%) - among children aged 36-47 months.
- The prevalence of acute malnutrition among children aged 6-59 months in the Republic of Tajikistan is 6.65%. According to WHO standards the obtained results for the prevalence of acute malnutrition are considered as an unfavourable problem of public health.

Source: The organization of the monitoring system and the assessment of malnutrition among vulnerable population groups in Tajikistan. The design of the mechanism of targeted assistance to those in need of food aid. Republican Centre for Nutrition Problems of the Ministry of Health of the RT. Dushanbe, 2011

Table 1.4. Prevalence of child malnutrition in the Republic of Tajikistan (2001 - 2011, Percentage)

Regions	Chronic malnutrition				Acute malnutrition			
	2002	2004	2006	2008-2011	2002	2004	2006	2008-2011
City of Dushanbe and RRS	29,3	27,5	21,2	22,6	4,4	6,1	9,0	7,0
Sughd Region	35,4	28,8	21,3	21,3	3,4	2,4	3,9	3,9
GBAO	25,3	30,3	20,8	16,9	5,3	8,7	8,8	7,8
Khatlon Region	32,2	35,1	18,1	27,8	5,8	10,5	6,4	6,4
Tajikistan	30,6	30,4	20,7	22,1	4,7	6,9	7,0	6,3

Source: Republican Centre for Nutritional Problems of the Ministry of Health

Diagram 1.11. Child malnutrition: Tajikistan comparisons to other countries

Over a quarter (twenty-seven percent) of all children under 5 years in developing countries suffer nutritional deficiency. Approximately half of all children under 5 in Southern Asia suffer nutritional deficiency. According to the World Nutrition Report²¹ the prevalence of nutritional deficiency in Southern Asia in 2005 stood at 36.5 percent while in 1990 it was 49.6 percent. In Tajikistan, per capita consumption for almost all types of products is below normal. According to official 1991 – 2008 data, annual per capita food consumption decreased as follows:

- per capita consumption of meat and meat products in 1991 was 26.1 kg. This indicator in 2000 and 2004 decreased to 4.4 kg, i.e., six-fold as compared to 1991 while in 2007 it suffered a 7.1-fold decline;
- per capita consumption of milk and milk products in 1991 was 171 kg. This indicator in 2000 was 64.9 kg, and in 2004 it was 43 kg (i.e., it decreased four-fold, and in 2007 it decreased 5.9-fold as compared to the level of 1991). In addition, reduced consumption of eggs, confectioneries, etc. was observed.

In order to support the system of providing reliable and updated information and analysis of the current food security situation, the Tajik Government decided to prepare and publish a regular food security bulletin. From 2005 on, the Agency on Statistics under the President of the Republic of Tajikistan has prepared and published on a quarterly basis analytical reports on food security in Tajik, Russian and English as a collection of

articles entitled “Food Security and Poverty”.

These are accessible at the Agency’s web-site:

www.stat.tj. The bulletins’ baseline data on food security elucidate information on: food production, availability and affordability of food, crop acreage, agricultural production, general climate parameters, the state of nutrition and health, water supply, prices and quantitative data indicative of food market realities.

Currently, Tajikistan’s food market mainly provides a physical availability of products of plant origin, and even then it does not cover all needs. The food balance i.e., balance of the main groups shows that to a considerable degree the country’s demand for food is covered through imports²². However, a large share of imports does not necessarily mean food supply difficulties for the population. Economically, if imports cost less than domestic products, especially if the domestic resources which are currently free are used more profitably, it can be concluded that it is better to import. But such a point of view assumes that there are reliable partners ready to meet the demand for imports at reasonable prices and that there are provisions for the safe storage, transportation and sale of imported food. At present, Tajikistan is highly dependent upon the world food market. This is why an increase in international food prices can aggravate the country’s problem of food security. Even when enough food is available on the market, a comparably slight increase in prices could make it unaffordable for the population.

²¹ WHO Global NCD InfoBase [online database]: WHO global comparable estimates. Geneva, World Health Organization, 2005.

²² See regular bulletins of the Statistical Agency under the President of the Republic of Tajikistan: “Agriculture of the Republic of Tajikistan”, Food Security and Poverty”.

Increases in the country's budget will to some extent depend on agrarian sector growth rates. However, this sector cannot develop without exporting its products. Major, dramatic changes in the republic's agrarian sector are required to develop export potential and increase agricultural production, which should be of high quality to meet the demand of consumers from countries - trade partners. These changes are related to the implementation of the requirements of a number of Agreements signed at the World Trade Organization in the framework of GATT-94. Addressing problems specified in the Agreement on Agriculture (AA), Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), Agreement on Technical Barriers to Trade (TBT), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and Agreement on Import Licensing Procedures (AILP) can play a significant role in the development of the republic's agricultural sector. This could also increase agricultural export potential and thereby raise the amount of currency earnings available for the country's budget through trading agricultural products on the external market.

BOX 1.8.

FOOD SECURITY LEVELS

According to FAO classification seven former USSR republics are considered most at risk for food insecurity and countries suffering from a chronic food deficit: Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The key indicators for such an assessment are the nutrition level and the food patterns of the population matching its needs, the trends and rates of consumption dynamics, per capita food production, and the structure of sources. These indicators change under the influence of a set of conditions, which determine the following levels of food security:

- optimal (sufficient) - this is the balance of resources sufficient to ensure 80-85% of domestic products on the internal market;
- intermediary (insufficient) - this is the level of production where at least 60% but not more than 80% of foodstuffs are produced domestically;
- critical - production level, below which there is import dependency and with which the domestic market should be covered up to 60% with domestic products.

Globally, the essential criteria of food security are the level of self-sufficiency (provision of staple foodstuffs) and the levels of their carryover stocks, which should amount to 15-20 percent of annual consumption. In order to track progress towards food security the following indicator is used: the share of produced agricultural and fish products, raw materials and foodstuffs in the total volume of goods on the domestic market expressed as a percentage. In the medium term for the CIS countries, including Tajikistan, the threshold values for this criterion are recommended as follows:

- cereals – at least 95 percent;
- vegetable oil – at least 80 percent;
- sugar – at least 80 percent;
- meat and meat products (equivalent to meat) – at least five percent, milk and milk products (equivalent to milk) – at least 90 percent; fish products – at least 80 percent²³.

Tajikistan's regulatory framework is established by Law # 641 "On Food Security", adopted on 29 December 2010, the Republic of Tajikistan's Food Security Program for the period until 2015, adopted by Enactment # 72 of the Government of the Republic of Tajikistan dated 2 February 2009, National Healthcare Strategy of the Republic of Tajikistan for 2010 – 2020, and others.

Tajikistan's agricultural policy should plan for a food production and supply system that can satisfy the population's needs only for some foodstuffs, namely for vegetables, potatoes and fruits. Of these, only horticulture and viticulture have the long-term preconditions for large-scale exports. This being said, Tajikistan's agricultural sector with its high-output cotton production, horticulture and viticulture complexes and production of other industrial crops is quite capable of providing raw materials for further development of the light and food industry, which would then produce end products of high market value. These products could then be exchanged to compensate for the shortage of cereal, meat, milk, fertilizers and feed compounds.

In market-driven economies the cost of water plays an important role. The scientists of the Tajik Research Institute for Water Engineering and Land Reclamation calculated average weighted costs for the generation of additional 1000 m³ of water by various methods.

²³ The concept of improving food security of CIS countries was adopted by the Resolution of the Council of CIS State Leaders dated 19 November 2010.

Table 1.5. Average weighted costs for the generation of additional 1000 m³ of water, USD

No	Methods of water generation	Costs, US dollars
1	Conversion of saline water	1000±250
2	Rehabilitation of reclamation systems	800±100
3	Water transfer	750±200
4	Purification of wastewater	120±20
5	Reservoir operation	70±20
6	Implementation of water conservation techniques	3±2

The calculated results conclusively show that the cheapest and the most economically viable method to increase production is through the implementation of water conservation irrigation techniques which amounted to just \$3-5 for the generation of 1000 m³ of water.

Therefore, given both the deficit of water resources and the established water quotas, it is necessary to implement a set of water saving measures such as: rational management of irrigation waters through the improvement of principles of land reclamation and hydromodule zoning, design and implementation of evidence-based irrigation regimes and established water consumption for agricultural crops. Furthermore, utilization of advanced water saving irrigation technologies, improvement of the state of lands, and the elaboration and implementation of new advanced methods are also required. Finally, irrigation techniques, and their optimization to ensure increased productivity, and output per irrigated hectare and use of newly irrigated lands, is of high scientific and practical relevance.

The problem of food insecurity is constantly discussed at various international forums where the conceptual framework for addressing this problem is being developed. Smallholders, their associations, cooperatives and other organizations must primarily participate in the formulation of such policy. To this end, an adequate legal framework and business environment needs to be created, and agricultural producers need to be motivated.

The following essential issues must be tackled to ensure an efficient implementation of Tajikistan's agrarian policy:

- Transparent and results-oriented completion of agrarian reform: In this regard, there is a need to reconsider its focus areas – it must be completed as both land and water reform. Apart from the distribution of lands, which previously belonged to collective and state

farms, this stage of the reform must include a comprehensive solution to all issues of agricultural production, including all issues related to water and the country's water sector;

- Market-oriented and competitive development of effective systems for the logistical support of agriculture, transportation, storage and sale of agricultural products;
- All state-run institutions responsible for these issues must work as one team and be governed by a single coordination centre. They should aim to render assistance to market entities;
- Training specialists for the sector – structures/institutions should be established to foster the new generation of rural entrepreneurs and public officers for the agro-industry. To this end, large-scale training of smallholders (farmers) and managers for the new farms, which can work in current conditions, should be conducted. To complement this task, scientific support to agriculture should also be restructured;
- Creation of a favourable business environment in agriculture and the agro-industry, which enables the organization and development of various forms of rural entrepreneurship and cooperatives that provide services for agricultural producers.
- A clear definition of the role of the state in pursuing agricultural policy.

According to data of the Ministry of Labour, Migration and Employment of the Republic of Tajikistan, the increase in the number of university graduates when compared to 1991 stands at 51.5 per cent for the entire country. For graduates in economics, that number has risen by 3680 percent (almost a 37-fold increase);

Law studies have seen a 1270 percent increase (almost a 13-fold increase). For other educational sectors, the increase ranges from 9 to 30 percent, but in agriculture the number of graduates has declined by 24.4 percent.

In agrarian sector of Tajikistan, there are over 30,000 agricultural farms with different business models. Specialist graduates are not in demand at these farms. Instead, there is a great demand for farmers, but there are no schools that provide a basic and systematic training for farmers. It is evident that the system of agrarian education should be seriously revisited. Training in skills that are needed today should be given priority, meaning an expansion of services relevant to farmers.

Over the past several years NGOs implemented agricultural extension projects funded by different donors. These projects enabled rendering important extension services to farmers. Unfortunately, these efforts were not well coordinated. In addition their actions have been limited in scope and frequently not attached to technical base.

There is also an urgent need to seek new ways to develop agricultural research institutions. It might be a good idea to divide the existing research institutions as follows: Some institutions would continue academic research, develop new agricultural techniques, breed new plant varieties and new animal breeds, etc. The rest could move over to the newly organized consulting groups, which could provide extension services to farmers at the local level such as consultations and advice for farmers and trainings on new technologies. This type of organization would enable linking theory with practice and it would also enable creating feedback mechanism to enhance quality of research and better respond to needs of farmers.

Despite recent progress²⁴, Tajikistan's internal, regional and international transport network remains inadequate and limits access to markets and services while increasing costs and hampering economic and social development. The existing barriers of administrative, legislative, institutional, regulatory nature, hinder transboundary movement of vehicles, reduce efficiency, increase costs and hamper the development of regional and international trade.

The country also faces road safety challenges. Poor observance of traffic regulations and inadequate training combined with drivers' behaviour are among the main factors contributing to high mortality rates due to road accidents.²⁵

1.3. HUMAN DEVELOPMENT INDICES DYNAMICS IN THE REPUBLIC OF TAJIKISTAN

Human development is an abstract concept. In order to measure it (say, determine the level, dynamics, direction of changes) indicators are needed, which would quantitatively describe aspects of human development.

The Human Development Index is one of the most universally recognized international ratings; it has been published since 1990 in the independent human development report, which is compiled by a group of leading world scholars and practitioners on commission from the United Nations Development Program.

In 2010 the United Nations issued Human Development Report at its 20th anniversary devoted to the Real Wealth of Nations: Pathways to Human Development, where the HDI calculation methodology was seriously revised. So now a larger body of input data is required, including:

- data on gross national income (GNI) per capita (in PPP terms in USD);
- expected life expectancy at birth (years);
- expected years of schooling (years);
- data on mean years of schooling (years).

Primary sources of such data are national statistical services and surveys conducted by international organizations.

²⁴ The number of repaired regional roads, tunnels. Transport Sector Development Plan for 2010 - 2025; more budget funds allocated for road maintenance, including the transfer of roads to the private sector; limits for overloaded vehicles to drive at night in summer; amendments to the law on administrative offences related to the movement of heavy trucks, large-sized and hazardous goods, modernization of traffic inspection and equipment for weighing vehicles at the checkpoint at Kulma and Nizhny Pyanj; national aviation policy 2010.

²⁵ DCC-GoT Initiatives: February 1, 2014

Table 1.6. Human Development Index and its components in 2013²⁶

No	Groups of countries according to human development	Human Development Index (value)	Life expectancy at birth (years)	Mean years of schooling (years)	Expected years of schooling (years)	Gross national income per capita (USD in PPP terms)
1	Very high human development	0,890	80,2	11,7	16,3	40046
2	High human development	0,735	74,5	8,1	13,4	13231
3	Medium human development	0,614	67,9	5,5	11,7	5,960
	Tajikistan	0,607	67,2	9,9	11,2	2424
4	Low human development	0,493	59,4	4,2	9,0	2904

According to 2013 data Tajikistan is included into the group of countries with medium human development and is ranked 133rd with its HDI = 0.607²⁷. Tajikistan went up one rank relative to the 2013 ranking of countries and the annual growth rate was 0.7%.

Table 1.7. Human Development Index trends in the Republic of Tajikistan, 2000-2013²⁸

	2000	2005	2007	2010	2011	2012	2013
HDI	0,529	0,572	0,591	0,596	0,600	0,603	0,607

Average annual increase of the HDI value for the period 2000 - 2013 is 1.07%. Whereas the average annual increase for medium human development countries for the same period is 1.17%.

BOX 1.9.

An essential part of human development is equal opportunities. Every person has the right to live a full life consistent with one's own values and aspirations.

Inequality slows down human development and in some cases can even stop it. This applies more to inequality in education and health and to a lesser extent to income inequality.

The impact of inequality on human development can be captured with the inequality-adjusted human development index (IHDI) which considers the HDI of the average person and its distribution across the following indicators: life expectancy, education level and control over resources. The difference between HDI and IHDI is the evidence of inequality.

As seen from IHDI figures in 2012 almost a quarter of the HDI value or 23% are losses in human development due to inequality.

Human Development Report 2013

²⁶ Human Development Report 2014. Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. UNDP 2014

²⁷ ibid

²⁸ ibid

Table 1.8. Inequality-adjusted Human Development Index 2013²⁹

No	Groups of countries according to human development	Inequality-adjusted HDI	Inequality-adjusted life expectancy index	Inequality-adjusted education index	Inequality-adjusted income index
1	Very high human development	0,780	0,881	0,769	0,702
2	High human development	0,590	0,749	0,531	0,517
3	Medium human development	0,457	0,575	0,331	0,502
	Tajikistan	0,491	0,514	0,561	0,409
4	Low human development	0,322	0,394	0,241	0,307

Table 1.9. Gender Inequality Index 2013³⁰

No	Groups of countries according to human development	Gender inequality index (value)	Maternal mortality rate (deaths per 100,000 of live births)	Adolescent birth rate (births per 1,000 women ages 15-19)	Share of seats in parliament (% held by women)	Women with at least some secondary education (% of women ages 25 and older)	Labour force participation rate (% of women ages 15 and older)
1	Very high human development	0,197	16	19,2	26,7	86,1	52,7
2	High human development	0,315	42	28,8	18,8	60,2	46,8
3	Medium human development	0,502	186	43,4	17,5	44,7	50,5
	Tajikistan	0,383	65	42,8	17,5	89,9	57,4
4	Low human development	0,586	427	92,3	20,0	15,2	56,4

Table 1.10. Multidimensional Poverty Index 2013³¹

Multidimensional Poverty Index (value)	Population in multidimensional poverty		Population near multidimensional poverty, %	Population in severe poverty, %	Contribution of deprivation in dimension to overall poverty, %			Population below income poverty line, %	
	headcount %	intensity of deprivation, %			education	health	living standards	PPP \$1.25 per day	National poverty line
0,054	13,2	39,0	23,4	1,2	13,4	52,6	34,0	6,56	46,7

²⁹ ibid³⁰ ibid³¹ ibid

The overall loss for Tajikistan's IHDI as compared to HDI in 2013 was 19.1%, which is less than in the medium human development group of countries (25.6%). It is higher for the inequality-adjusted life expectancy index with 29.3% in comparison to 21.9%, lower for the inequality-adjusted education index with 12.2% compared to 35.1%, and the inequality-adjusted income index with 15.0% compared to 35.1%.

Gender inequality is simultaneously an issue of greatest concern and an integral part of human development. Women are still too often discriminated in healthcare, education and on the labour market, and this limits their freedoms. The degree of discrimination can be measured using the Gender Inequality Index, which shows losses in human progress due to gender inequality in the following three domains: reproductive health, empowerment and labour force participation. Based on 2013 data the GII demonstrates considerable variations across nations.

According to GII value and its components the state of women in Tajikistan is better than in medium human development group of countries.

The multidimensional poverty index value in 2013, as compared to 2012 has decreased to 20.6%.

The human development index for Tajikistan's regions was first calculated and published in the National Human Development Report 2009 - 2010. HDI is calculated for the major regions of the republic - city of Dushanbe, RRS, Sughd, Khatlon and GBAO regions are based on a traditional calculation method.

The calculations of the regional HDI value which allow the identification of key factors contributing to the positive dynamics of the country's regions and districts demonstrated that Dushanbe still has the leading position in 2013 with a human development index of 0.712.

The analysis of HDI components shows that expected life expectancy varies from 71.8 years in Sughd Region to 74.1 years in RRS. The literacy level of adults is relatively high in all regions, but there is a slight variation in values. Three regions have high primary, secondary and higher education coverage, namely the capital Dushanbe, GBAO and Sughd region. The lowest education coverage figures are registered in RRS and Khatlon region.

The regional human development indices of the Republic of Tajikistan primarily correlate with the economic development of individual regions due to the fact that Gross Regional Product per capita is the most differentiated component.

Diagram 1.12. HDI broken down by administrative units of the Republic of Tajikistan (traditional calculation method)

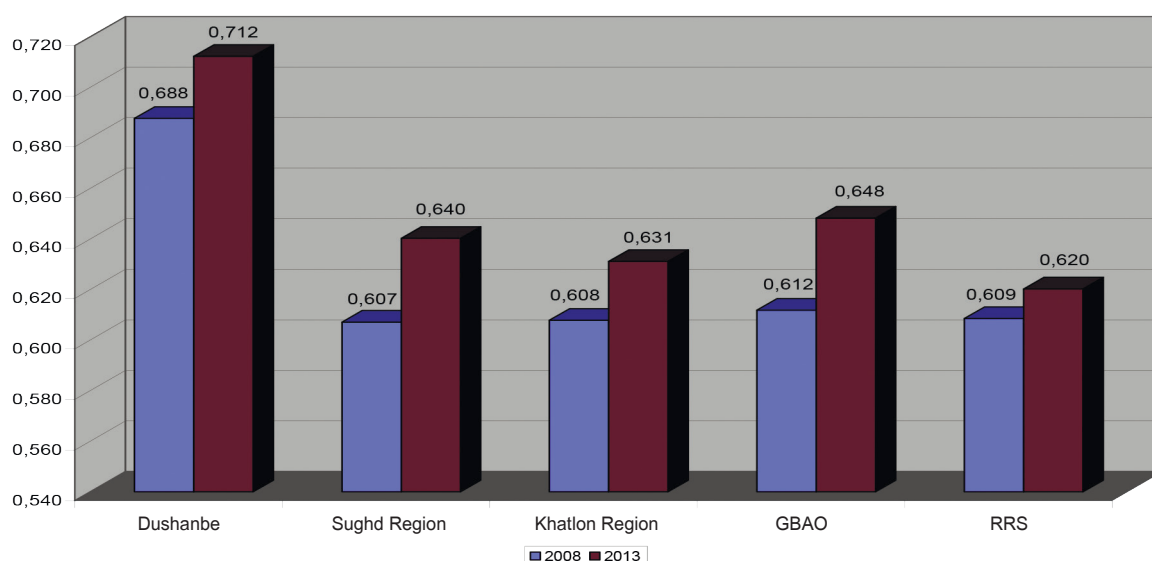


Table 1.11. Dynamics of the Gross Regional Product per capita in the regions of the Republic of Tajikistan, TJS

	Years					
	2008	2009	2010	2011	2012	2013
Dushanbe	4740,4	4889,0	7184,3	8690,3	9684,3	11055,6
Sughd region	1859,7	2250,2	2555,3	3148,7	3724,9	4235,9
Khatlon region	1856,0	1928,3	2426,5	3007,1	3460,8	3540,9
GBAO	1524,0	1782,9	2019,4	1855,8	2611,3	3193,5
RRS	2013,9	2415,5	2602,7	2717,4	2999,6	3228,7

This means that despite the fact that HDI values have been growing recently mostly due to higher rates of income growth as compared to health and education, incomes are still too low, which points out the necessity to stimulate economic activity in the regions.

During the period of 2008 - 2013, HDI for the regions increased on average in the range of 0.5 - 1.5% annually. In fact, relatively low growth rates are observed in the RRS while relatively high rates are registered in Sughd Region and GBAO.

In general, the practice of HDI calculation and the analysis of its results show that only the combination of two trends, namely stimulating economic growth in the regions and positive social changes with regards to the population's living standards and lifestyles guarantee a sustainable and fast HDI increase. Promoting sustainable human development in the long run implies that there are development priorities in place and effective regional policy mechanisms that have been introduced for different districts and regions.

CHAPTER 2

Demographic trends, employment and access to jobs³²

2.1 POPULATION AND LABOUR FORCE GROWTH DYNAMICS³³

The country's population, influenced by a new market-driven economy, has changed its demographic behaviour³⁴. According to 2010 census data, Tajikistan's population was 7,564,502, which is 1,437,009 more than the population registered during the 2000 census. During the period in question population growth continued at the same rates. Over the analysed period, population growth averaged 19.0 percent. The number of women increased by 689,105 over that period, which represents 18.4 percent, whereas for men the increase was 747,904, equivalent to 19.6 percent. According to the republic's 2010 population and housing census the population under working age increased by 73,842, which represents only 2.8 percent. This was due to the increase of the male population by 52,898, i.e. 3.8 percent, whereas the female population grew by 20,944, which represents 1.6 percent.

The working-age population increased by 1,390,260, or. 30.8 percent. Such growth was due to the increase of the male population by 713,416, or 31.1 percent whereas the increase of the female population was 676,844, which represents 30.5 percent.

As for the increase of the working age population, this category witnessed a decline over the 2000 - 2010 period. In particular, this group saw a reduction of 27,090 or - 7.5 percent. The downward trend is much more pronounced among males - 18,410, or 13.1 percent, whereas this figure (number) for women has dropped by - 8,680 or - 4.1 percent respectively (diagram 2.1).

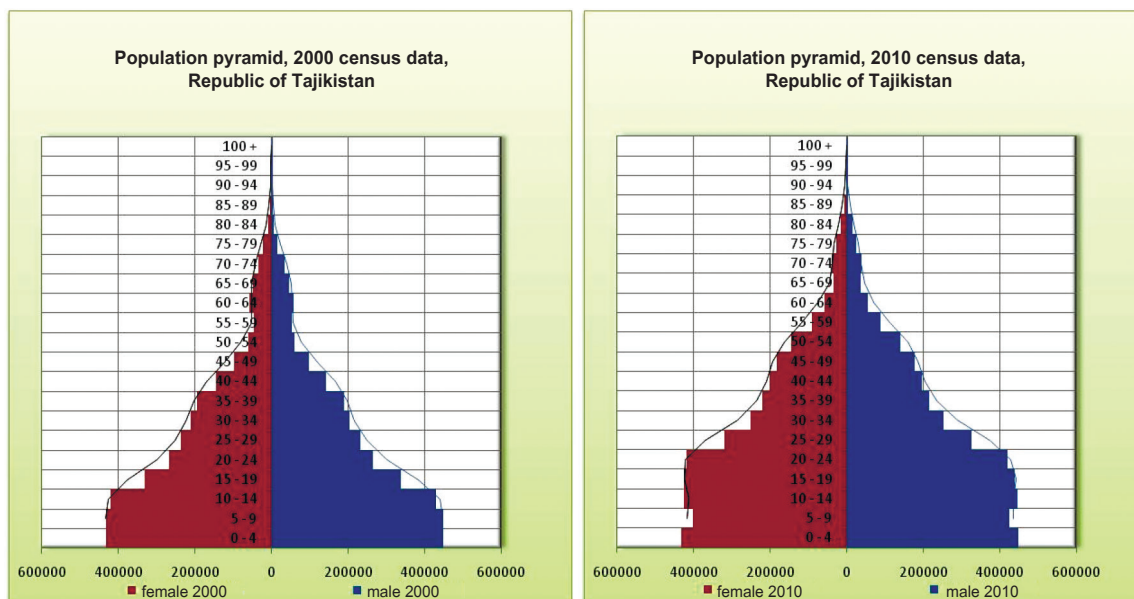
According to findings disaggregated by age and gender categories (population pyramid), the 2010 population and housing census, shows that a significant proportion of youth aged 15-24 entered the reproductive age group, which caused a rise in births during the 2005 - 2010 period. The 15-24 age group can be an economic development opportunity if this resource is used consistently for planning socio-economic development. If the age and gender pyramid based on 2000 and 2010 data is considered, the following development scenario can be observed.

³² As demographic trends and changes on labour market have sustainable dynamics, please see also: Unemployment in the National Human Development Context, 2009, Tajikistan-<http://hdr.undp.org/en/content/unemployment-human-development-context>

³³ The chapter is based on the Report Analysis of the Demographic Trends of the Republic of Tajikistan prepared by the UNFPA Office in Tajikistan for NHDR Tajikistan: Access to Resources for Human Development. The full text of the Report is attached to the NHDR (Sources and Information Materials).

³⁴ Demographic behaviour as main element of population development is an aggregate decisions accepted by population, which form demographic events and processes as fertility and mortality, marriage, migration.

Diagram 2.1. Population of the Republic of Tajikistan by age and gender according to the 2000 - 2010 census data³⁵



The shape of the pyramid changes according to the existing demographic trend (diagram 2.1), which causes the base of the pyramid to narrow at the bottom while the top of the pyramid becomes wider (onion shape). In other words, there is a trend for the coming 10-20 years in terms of the reduction of the number of children, an increase of the working age population, as well as a gradual increase of the older working age population and of those citizens in the advanced age (80 years and older) category.

The population of Tajikistan primarily resides in rural areas. Population expansion is determined by the population dynamics in rural areas. During the census period 2000– 2010, the rural population demonstrated a sufficiently positive dynamic (see diagram 2.2).

Over the period in question (2000-2010) the population of the Gorno-Badakhshan Autonomous Region remained unchanged. This is evidence of population decline. The population of this region must on average be 19.0 percent higher to follow national trends.

From 2000 to 2010, the growth rate in Sughd Region was 16.3 percent while the Khatlon Region increased its population by 19.7 percent. In cities, towns and districts under republican administration and in Dushanbe, the growth rate was 22.4 percent.

Khatlon Region is currently the country's most populated region with thirty percent of the total population. Once Tajikistan gained independence, the population of Khatlon Region increased quite quickly, and became the country's fastest growing region.

An important prerequisite for high population growth rates, other things being equal, is a favourable gender ratio and, in particular, the ratio between the number of men and women of reproductive age.

Among the regions of the republic, GBAO experienced a lack of balance in the numbers of men and women over the 1979-2010 period. A maximum number of women was observed in 1989, standing at 63.2 %, while the share of men stood at 36.8 percent in 1989. Such figures show that 26.4 % of the region's replacement potential was underutilized. More favourable conditions for population replacement are observed in Khatlon Region, where the unused population potential is estimated at 1.2 %. Meanwhile, in Sughd Region it is estimated at 2.4 percent and in Dushanbe it is 3.2 %. In other cities and in the DRSs it stands at 1.4 percent. On average, the figure for Tajikistan is estimated to be 1.2 percent. According to Diagram 1.1.2 the total number of females within the population is lower as compared to the number of males.

³⁵ Population and housing census of the Republic of Tajikistan 2010. Population of the Republic of Tajikistan by gender, age and marital status. Vol. II Statistical Agency under the President of the Republic of Tajikistan, 2012

Diagram 2.2. Permanent population in the regions according to 2000 - 2010 data (in thousand)³⁶

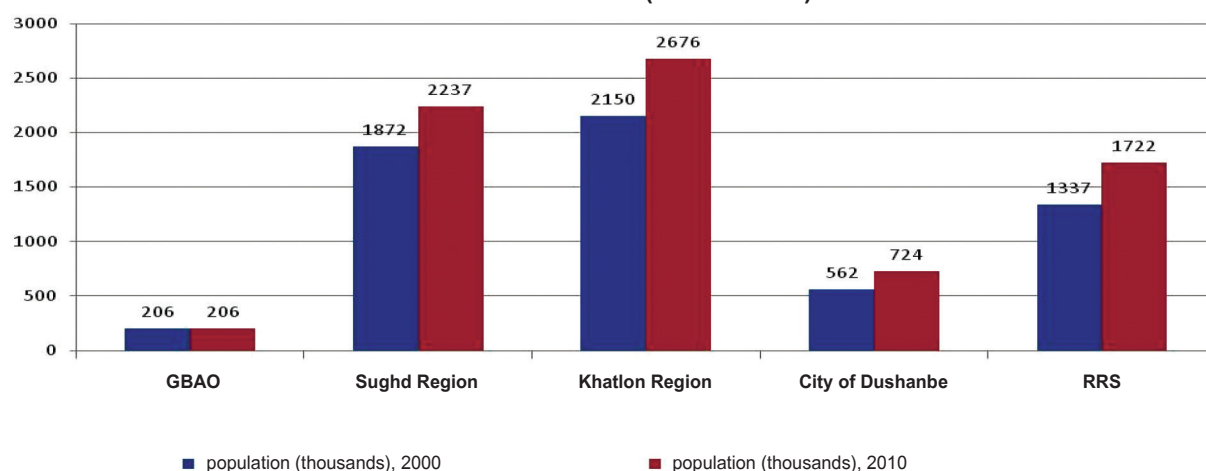


Diagram 2.3. Dynamics of the labour force of the Republic of Tajikistan

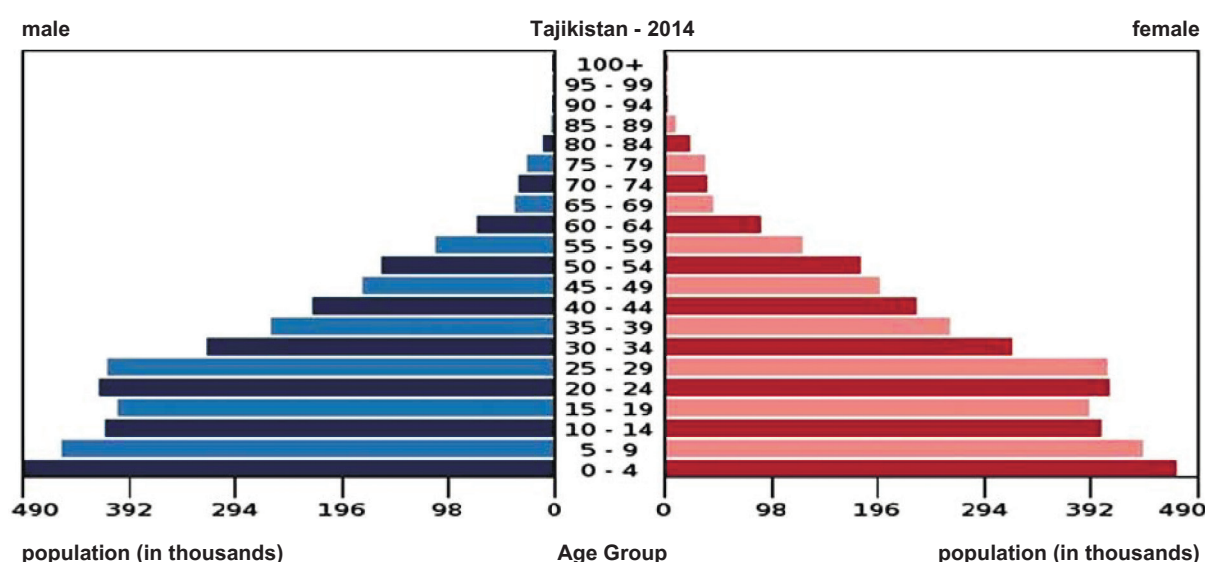


Table 2.1. Labour force of Tajikistan, 2007-2011

	2007	2008	2009	2010	2011	2012	2013
Working age population (absolute numbers)	4,172,000	4,310,000	4,435,000	4,530,000	4,664,000	4,796,000	4,866,000
Gainfully employed population (absolute numbers)	2,201,000	2,217,000	2,264,000	2,280,000	2,303,000	2,347,000	2,362,000
Labour force participation rate (percentage)	53	51	51	50	49	49	49

Source: Republic of Tajikistan's Statistical Agency, 2014

³⁶ Population and housing census of the Republic of Tajikistan 2010. Population of the Republic of Tajikistan by gender, age and marital status. Vol. II Statistical Agency under the President of the Republic of Tajikistan, 2012

2.2 EMPLOYMENT RATE³⁷

Demographic models show that Tajikistan has a young and quickly growing population, which is reflected in its labour force dynamics. According to national statistics, the working-age population and the still working population³⁸ increased by almost twelve percent over the period from 2007 to 2011. Ironically, over the same period the number of the gainfully employed population increased only by 102,000 or five percent, while the number of people in employment increased by only 99,000. In other words, only one fifth of the labour force could find a job. The labour force participation rate went down from 53 percent in 2007 to 49 percent in 2011, which is a very low rate when compared to both global and regional rates. In all CIS countries for which such data is available, the labour force participation rate in 2011 stood at 60 percent.³⁹

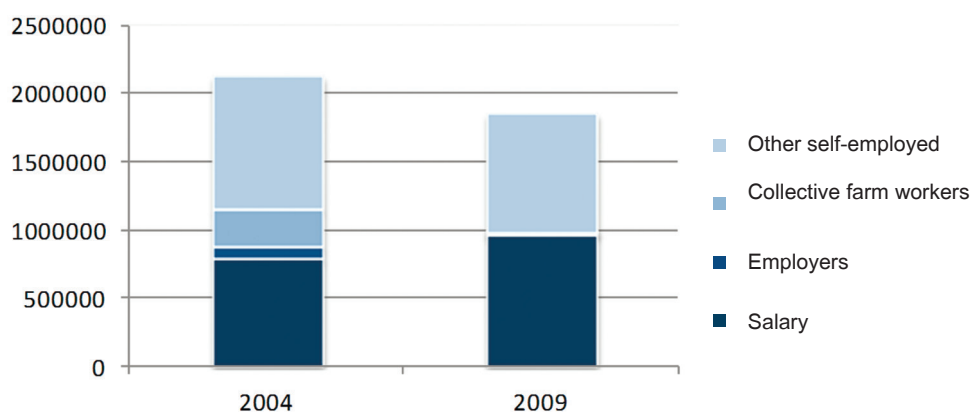
During the 2004-2009 period, the working-age population increased by 727,500. However, the gainfully employed labour force decreased by 30,900. The labour force participation rate fell from 67 percent to 56 percent. The gender gap has been growing. It has become apparent that the number of jobs created is not sufficient to integrate the increasing number of working-age people into the labour market.

2.3 UNEMPLOYMENT AND ACCESS TO WORK⁴⁰

Unemployment was a critical issue in Tajikistan even during the Soviet era. The situation has recently experienced some improvements. Nevertheless, the absolute number of unemployed and the country's unemployment rate have grown over the last decade.

According to 2011 official statistics, there were only 54,000 registered unemployed, which means that the unemployment level was a mere 2.5 percent. Five years earlier it was even lower at 2.2 percent. These low rates are partly explained by the fact that the unemployed very rarely visit employment bureaus for help as their services are not very useful. Most jobs offered by employment bureaus are low-paid and unappealing and such services are provided in rural areas only to a limited extent.

Diagram 2.4. Change in the structure of the working-age population



³⁷ This section is based on the Report Unemployment, Employment and Access to Jobs prepared by ILO's Tajikistan Office for the NHDR Tajikistan: Access to Resources for Human Development. The full text of the Report is attached to the NHDR (Sources and Information Materials).

³⁸ In the age of 15-74

³⁹ Information source ILOSTAT, 2013-02-14

⁴⁰ This section is based on the Report Unemployment, Employment and Access to Jobs prepared by the ILO Office in Tajikistan for the NHDR Tajikistan: Access to Resources for Human Development. The full text of the Report is attached to the NHDR (Information Materials).

Table 2.2. Dynamics of officially unemployed and out-of-work benefits 2007 - 2012

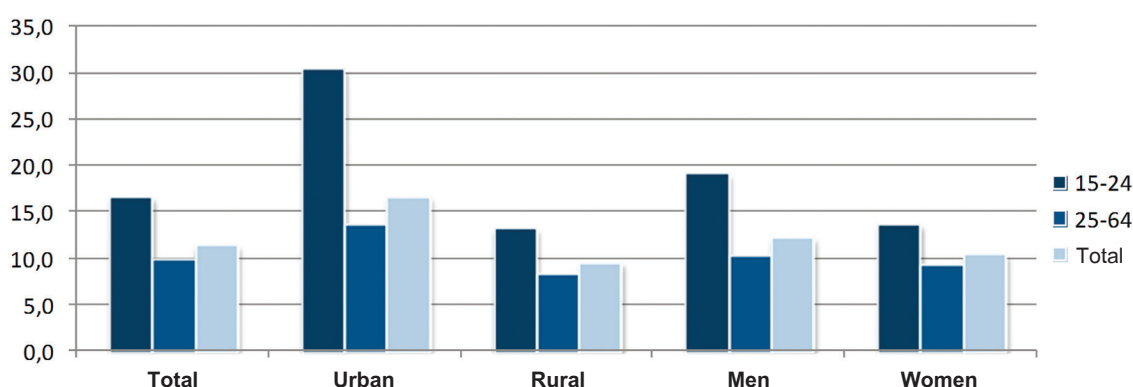
	2009	2010	2011	2012	2013
Officially registered unemployed (thousands)	45000	47000	54000	56000	55000
Official unemployment level, Percent	2,0	2,1	2,5	2,4	2,3
Recipients of unemployment benefits (thousands)	3,000	2,300	3,500	6,300	8,180
Benefits paid (thousand TJS)	1796,1	1669,2	2083,6	2172,2	3411,8
- including benefits to women (thousand TJS)	402,8	370,5	324,3	244,8	271,8

Source: Republic Statistics Agency, 2014

Furthermore, many unemployed do not meet the criteria entitling them to employment benefits, which is another reason for the non-registration with employment bureaus. In 2012, there were extremely few recipients of unemployment benefits. Only 6,300 persons received unemployment benefits, which amounts to only 11.7 per cent of the officially registered unemployed. But still, it was a considerable increase in comparison to 2011, when 3,500 persons or 7.3 percent of the officially registered unemployed were entitled to unemployment benefits. These extremely low rates give a very clear indication that the criteria for unemployment benefits are too strict, and that a high level of informality has an impact on access to benefits. This being said, people with no working experience or people without official employment contracts have few reasons (if any at all) to visit an employment bureau and register as officially unemployed.⁴¹

Unemployment is especially high among youth (16.7 percent) and in urban areas (16.8 percent). Almost every third young person living in an urban area was unemployed in 2009. With a large young population ready to enter the labour force in the near future, there are imminent risks that unemployment rates among youth will increase.

Recently a considerable reduction of long-term unemployment has been observed: the average unemployment period decreased from 11.2 months in 2004 to 7.5 months in 2009.⁴² Undoubtedly there have been significant improvements in this sphere over the last decade in Tajikistan, including rapid poverty reduction. This was achieved, in particular, through changes in the labour market. Remittances from abroad, increased wages and improved productivity levels led to income growth for the population, especially in urban areas.

Diagram 2.5. Unemployment rate broken down by gender, age and location (2009)

Source: Labour Force Survey 2009

⁴¹ Baskakova M.(2013), calculations based on Research of Labour Force, 2009

⁴² ibid

Despite these positive changes, there are still many outstanding employment issues, and this is primarily due to the need to create a competitive domestic market. This will require the diversification of the economy and, in particular, a considerable increase in the number of newly created jobs. It also will need to take into account both the large numbers of young people entering the labour market and the excessively large share of the population not gainfully employed.

According to official data (Address by the President of the Republic of Tajikistan and annual reports by the Republic of Tajikistan's Ministry of Labour, Migration and Employment of the Population) over 600,000 new jobs were created during the past five years.⁴³ If all these jobs resulted in two working shifts, then all migrants currently going abroad to work would be able to find jobs in the country, and as a result Tajikistan would require additional workers.

But the number of migrants is not decreasing, official unemployment rates are growing, while the number of available jobs remains the same.

This is why a clear differentiation between the different types of employment is required; jobs should be categorized according to trade, territory, permanent, temporary or seasonal work; high technology, motorized, unqualified, manual, etc.

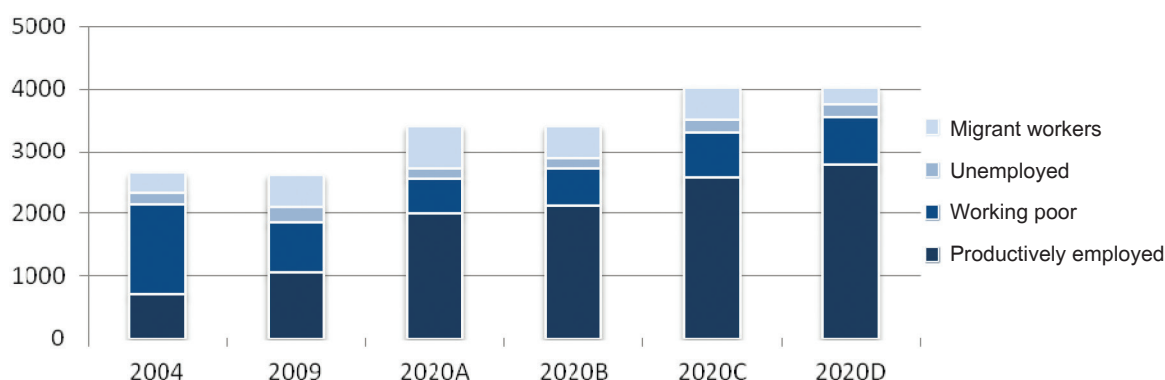
This being said, even such rates are not sufficiently high to ensure in the near future satisfactory access to employment for all job-seekers in the internal labour market. Continued economic growth and improved labour productivity cannot be taken for granted. Instead, these will require effective and efficient strategies and considerable investments with high returns.

Tajikistan's labour force will for the foreseeable future continue to grow quickly as large groups of young people are now entering the working-age population segment. The overall working-age population is estimated to grow by 6,044,000 in 2020, which means an increase of approximately 122,000 individuals annually. One can also assume that increased migration will slow down, and the large numbers of the inactive population will be reduced. All this may create enormous pressure on the domestic economy for the creation of productive jobs.

ILO elaborated four scenarios (Diagram 2.6), based on the need for employment growth. All scenarios imply the same goal: reducing poverty/working poverty and unemployment rates by half by 2020. Scenario A assumes that the same numbers in the labour force are engaged in labour migration⁴⁴. Scenario B assumes permanent numbers of labour migrants, and that the entire labour force increase remains in the domestic market. Scenario C is based on the desire to increase the labour force participation rate to its 2004 level while preserving at the same level the number of labour migrants abroad. This, in particular, implies the need to quickly increase female labour force participation rate. Scenario D is the most challenging and implies an economic growth rate that corresponds to 2004 levels and 50 percent reduction by 2020 of the number of Tajik migrants working abroad.

⁴³ Message of Emomali Rahmon, the President of the Republic of Tajikistan to Majlisi Oli of RT made on 20.04.2012 in Dushanbe; <http://news.tj/ru/news/svyshe-205-tys-novykh-rabochikh-mest-sozdano-v-tadzhikistane-v-proshlom-godu>; <http://news.tj/ru/news/bolee-35-tys-chelovek-trudoustroeno-v-tadzhikistane-v-2012-godu>

⁴⁴ Based on the LFS 2009 figures

Diagram 2.6. Anticipated demand for productive employment growth (in thousands)

Scenario 2020A: The same ages and labour force participation rates and migration level as in 2009

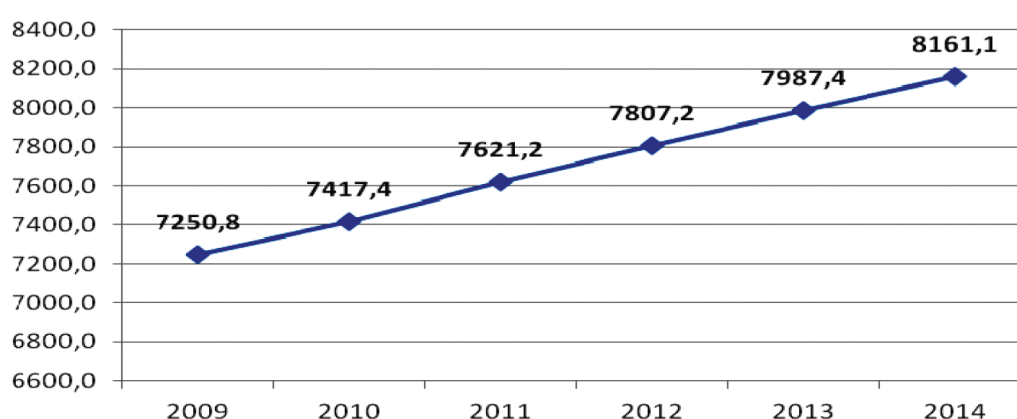
Scenario 2020B: The same labour force participation rates, age and the same number of labour migrants abroad as in 2009.

Scenario 2020C: Increase of the overall labour force participation rate corresponding to 2004 levels (66.5 percent) and the same number of labour migrants abroad as in 2009.

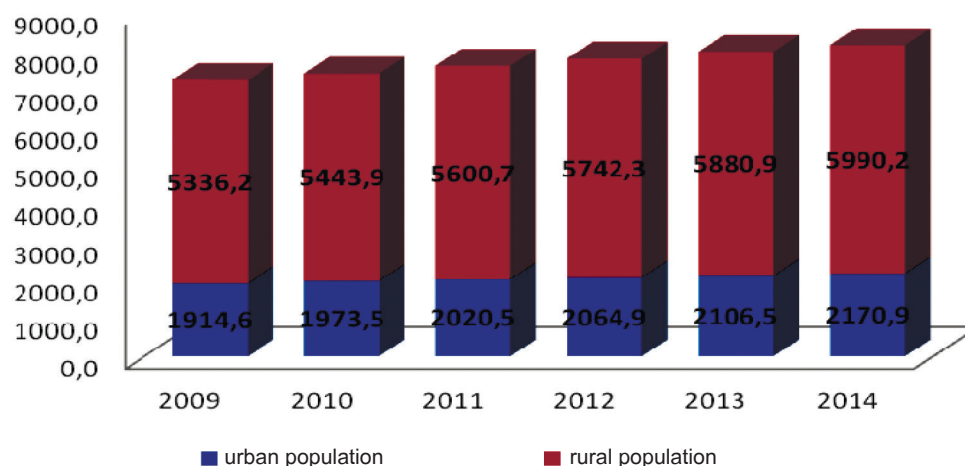
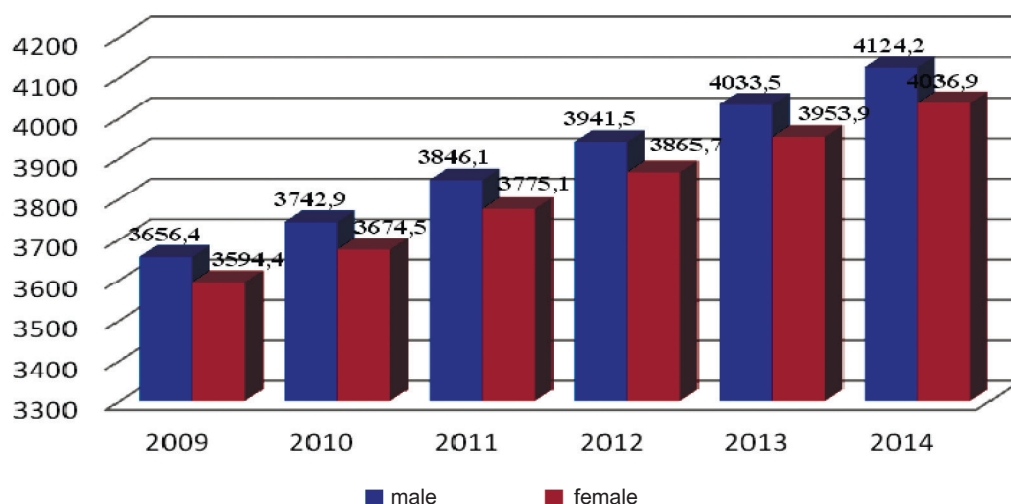
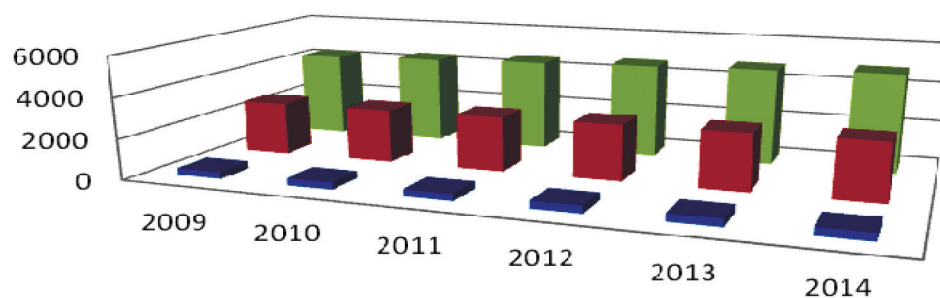
Scenario 2020D: Increase of the overall labour force participation rate to 2004 levels and reduction of the number of labour migrants working abroad to 2009 level.⁴⁵

Therefore, considerable improvements in some aspects of the labour market are evident but many employment issues still exist, particularly for the:

- inclusion of women in labour market;
- creation of a competitive domestic labour market;
- formalization of informal employment;
- creation of jobs in order to include a large number of young people entering the labour market.

Diagram 2.7. Change of the permanently-residing population in the beginning of year (in thousands)

⁴⁵ Population growth of working age for period from 2009 until 2020, according to official estimation will be 28.4%. Poverty rate is based on poverty indices (Updated poverty estimation in Tajikistan-2007 and rate of working poor to total number of poor-0,936 . Common rate of participation in the labour force is determined as a rate of working age population occupied in the domestic market, or working abroad.

Diagram 2.8. Change of the population composition of RT at the beginning of the year (in thousands)**Diagram 2.9. Changing gender composition of the population of RT at the beginning of the year (in thousands)****Diagram 2.10. Change of the labour force of RT at the beginning of the year (in thousands)**

	2009	2010	2011	2012	2013	2014
older than working age	342,6	346,3	357,7	366,5	378,3	396,8
younger than working age	2626,4	2660,5	2714,6	2768,5	2811,6	2844,2
population of working age	4281,8	4410,6	4548,9	4672,2	4797,5	4920,1

CHAPTER 3

Access to Institutional Resources for Development

3.1. PUBLIC ADMINISTRATION SERVICES⁴⁶

An analysis of several sources shows that Tajikistan is significantly rich in all types of economic resources. The second chapter of this report contains data that conclusively demonstrates an existing and broadly positive situation in the country in terms of a youth labour surplus, which translates into a relatively high labour force mobility, high fertility rates, etc. Various data, reports and the findings of multiple national and sectoral surveys and studies provide evidence that the country has an abundance of natural resources that are sufficient for economic development. Regular national statistical reports show an increase in industrial and agricultural production, as well as an observed universal increase in construction, proving that the country possesses considerable capital and financial resources. The entrepreneurial spirit is also characteristic of Tajikistan, which was historically part of the Great Silk Road and became famous for its merchants and trade. The practical day-to-day implementation/exploitation of the advantages of the above listed resources depends on the efficiency of the public sector. The question of the public sector's efficiency is of continued importance, as it is always relevant to any society. Daily life proves that governance plays a crucial role that does not lose its relevance but instead acquires additional significance in the current situation characterized by increasingly complicated and intensive global economic competition. Furthermore, good governance is of critical importance during times of reform and crisis.⁴⁷

BOX 3.1.

RESOURCES FOR TAJIKISTAN'S ECONOMIC DEVELOPMENT AND INFLUENCING FACTORS

Tajikistan has many resources, the effective use of which can become a solid base for the country's future development. These resources are: (1) considerable hydro-electric energy and fresh water resources; (2) various mineral deposits; (3) favourable conditions for the development of ecotourism; (4) raw agricultural resources for processing; (5) comparatively large areas of undeveloped lands suitable for agriculture; (6) favourable conditions for organic farming; (7) relative maturity of the transport and communication system; (8) low-cost manpower.

The economic development of the country is affected by a number of objective negative factors, including: (1) landlocked country; (2) remoteness from developed global economic centres; (3) lack of accessible domestic oil and gas deposits; (4) natural and geographic fragmentation of the country into regions; (5) low capacity of the domestic market; (6) external factors which may affect political instability; (7) high transaction costs related to the mitigation of the consequences of natural disasters and the need to combat drug trafficking and terrorism.

⁴⁶ See also: NHDR 2011 Tajikistan: Institutions and Development <http://hdr.undp.org/en/content/institutions-and-development>

⁴⁷ Statistic book "Tajikistan: 20 Years of Independence" Agency on Statistics under the President of RT, Dushanbe, 2011.

A criterion of the public sector's efficiency in the democratic governance system is its ability to satisfy the daily needs of individuals and society as a whole within conditions of strictly limited resources. This is why when considering the problem of access to economic resources to improve the population's well-being-one must firstly analyze Tajikistan's current public administration system and the challenges that need to be resolved to improve its effectiveness.

The key strategies and international protocols which act as a foundation to reform Tajikistan's public administration system are as follows:

- United Nations Millennium Declaration;
- National Development Strategy of the Republic of Tajikistan for the period of 2015 (NDS);
- Living Standards Improvement Strategy of Tajikistan for 2013-2015 (LSIS);
- Public Administration Reform Strategy of the Republic of Tajikistan (PRS);
- Concept for the Transition of the Republic of Tajikistan to Sustainable Development;
- Concept for the Establishment of E-Government in the Republic of Tajikistan, and others.

In addition, publications of various international organizations implementing projects in Tajikistan analyse the current situation and problems relating to public administration. Some of the most essential, universal and relevant studies are:

- National Human Development Report 2011 Tajikistan: Institutions and Development. UNDP, Dushanbe, 2012;
- Tajikistan: Building an Effective National Development System (Japan National Cooperation Agency, March 2007);
- Tajikistan: Public Expenditure and Institutional Review (World Bank, December 2005);
- Assessment of the Republic of Tajikistan's Public Administration System (Asian Development Bank, 2004).

The documents listed above contain detailed information about the state of the public administration system and also provide an in-depth analysis of existing problems. One should note that these studies all essentially identified the same problems which should be addressed through reforms.

The main conclusion to which both external and internal experts arrived is the **lack of effectiveness of Tajikistan's public administration system**, which currently is not capable of responding to the country's most basic needs that are hampering market economic growth, and Tajikistan's poverty reduction efforts. The country's current public administration system is characterized by inefficiency, duplication, lack of a clear delimitation of the competencies of individual administrative levels, predominance of command functions, where each higher echelon is mostly busy with controlling its subordinates rather than fulfilling the institution's mandate and functions.

Currently, there are a number of international indicators and ratings related to public administration. One of them stands apart, namely Governance Matters - a global survey with ratings of countries according to the quality and efficiency of public administration⁴⁸. This rating is calculated based on World Bank methodology using several hundred variables obtained from various sources, such as from national institutions' statistical data and international organisations, results of research performed on a regular basis by international and non-governmental organizations. The survey has been conducted since 1996 and is currently the most complete set of indicators which provide an overview of the quality of public administration of many of the world's countries.

The survey's methodology relies on the World Bank's six global governance indicators (Governance Indicators) reflecting various public administration parameters:

1. Voice of the population and accountability of public bodies
2. Political stability and absence of violence
3. Government Effectiveness
4. Regulatory Quality
5. Rule of Law
6. Control of Corruption

The World Bank's 2012 Report on Governance provides data calculated based on 2011 results. In 2012, the survey included 215 states and territories. For each of the six governance indicators, the table provides ratings from 0 to 100 which indicates the country's position compared to other countries. Consequently, the lower the rating, the worse the quality of governance is.

⁴⁸ Authors of the survey: World Bank experts: Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi.

According to the latest report, Tajikistan's score per indicator 'Government Effectiveness' (Index #3) is 18 points, Denmark and Finland both have 100 points (maximum value), Afghanistan has five points (minimum value) while Kazakhstan scores 45 points.⁴⁹

Studies focusing on an analysis of Tajikistan's public administration problems identify the same fundamental issues:

- 1) Lack of strategic direction: While there are several strategic and fiscal documents in existence, there is no process that would guarantee their continuity, coordination, implementation and monitoring. This also refers to "strategic policy" (NDS, SIWP), sectoral strategies and "strategic funding", such as a state investment program, state budget, donors' funds, etc. In some cases, this shortcoming was linked to a lack of "development focus", which essentially means the same.
- 2) The links between strategic decisions (development strategies and budgets), current processes of policy formulation and the actions of executive bodies are either inefficient or absolutely non-existent. There are virtually no procedures for ensuring that current policy and decision making are in line with strategic decisions. Thus, current policy and decision making cannot be used as an effective tool for strategy implementation.
- 3) There is confusion about roles and responsibilities regarding various elements of the political system, including current policy planning, policy design and decision making.
- 4) The government is excessively involved in economic activity and its regulatory capacities are not adequate for developing market-driven relationships. The development of a market economy means that the state is less involved in economic activity and will eventually move to indirect levers of state power to influence the economy.

When talking about public administration one must discuss the civil service as a key component. At the beginning of 2014, Tajikistan had more than 18.7 thousand civil servants, and this figure does not include representatives of security and

law enforcement agencies. According to Civil Service Agency data, 23 percent of civil servants are women and about 41 percent are young men under 35.

Fast economic growth in Tajikistan creates enhanced demand for qualified personnel in the economy's market sector. This being said, the system of labour remuneration for the civil service does not carry enough flexibility to respond effectively to the continuous changes and also does not retain sufficient attractiveness for professionally-trained members of the civil service who are also in demand in the private sector. This is why in recent years, the civil service has been experiencing growing pressure on the labour market and is rapidly losing its ability to attract and retain sufficiently trained personnel. Unfortunately, the reform of government's remuneration system in accordance with provisions of the new legislation, still does not make it possible to solve the issue of reducing competition on the labour market. This is becoming one of the major barriers to developing potential, policy, regulations, budgeting and development management.

Global experience conclusively proves that compact, flexible and non-corrupt civil service is one of the most important competitive advantages of any country.

Recently, organizations to protect consumers' rights have been established almost everywhere and focus on the interests and needs of ordinary citizens⁵⁰. Service standards are being set to this end, and citizens are able to influence the decisions of the authorities while the government guarantees 'transparency' of its activities, open information, etc.

Focus on the government's financial management has been growing dramatically in tandem with a growth in public funds. If earlier, each public institution was trying to obtain as much funds as possible from the state budget, it is currently interested in saving resources through the improvement of efficiency and productivity of their own operations. A new principle to justify remuneration, based on productivity and levels of results is also making headway.

⁴⁹ The most recent complete report and a detailed description of the methodology of formulating indices and data sources for them are given in the annual World Bank report: <http://info.worldbank.org/governance/wgi/pdf/c214.pdf>

⁵⁰ For example, the Citizens' Charter was adopted in the UK in 1991; this Initiative includes six principles, which became the fundamentals for the improvement of the operation of government entities: standards; information and openness; choice and consultations; honesty and utility; saving funds; complaining about wrongful acts. These principles are widely advocated in the countries of the European Union. In the US attempts are made to solve the issues of improving the quality of service provision to citizens by introducing the principles and methods of the concept of universal quality management into the work of state-run institutions.

The principle of the monopoly of state bodies and organizations regarding a number of services and functions was seriously criticized. The responsibilities of the private and public sectors and the structure of state bodies and organizations are undergoing a revision.

Unfortunately, one has to state that despite the reforms exercised by the government and numerous government changes, they have not yet brought about an improvement in the quality of public administration.

The way public services are provided has a considerable impact on the country's social and political realities. The quality of public services and their accessibility are among the criteria that determine the efficiency of a country's public administration system. The building of the public services sector is becoming a major policy goal for the development of the modern state. Public services of corresponding quality and range gradually have become the core issue of public administration, enabling a close integration with the market.

One of the latest and most detailed surveys of Tajikistan's public services sector was published in 2013⁵¹. It is a review and analysis of public services in Tajikistan, its overall regulatory framework, and also a study of the country's most important challenges.

In particular, the report states that the quality of services provided by the government remains low due to insufficient potential and number of employees, their low wages, state budget deficits, unsatisfactory control, negative traditions and stereotypes inherited from the old system, and also a lack of and limitations in the implementation of quality standards for the provision of services. The lack of quality standards and access to public services does not allow a harmonization and attribution of responsibilities of executive bodies with regards to society (individuals and legal entities), or implementing the procedures for the control and assessment of the activity of executive bodies. Local government cannot ensure the

population's access to effective quality services. The activities of jamoats, at the level of governance closest to communities, do not meet the principles of local self-government.

However, the basic problem of the existing system to provide public services in Tajikistan is that, on the one hand, there is no equal access of the different categories of users to public services, and on the other hand, some government bodies sometimes force public services upon users even when it is not economically justified or has no legal grounds. The lack of independent entities to review grievances, claims and appeals from citizens complaining about the low quality of services hinders the establishment of democratic legal procedures for their consideration and contributes to the spread of corruption.

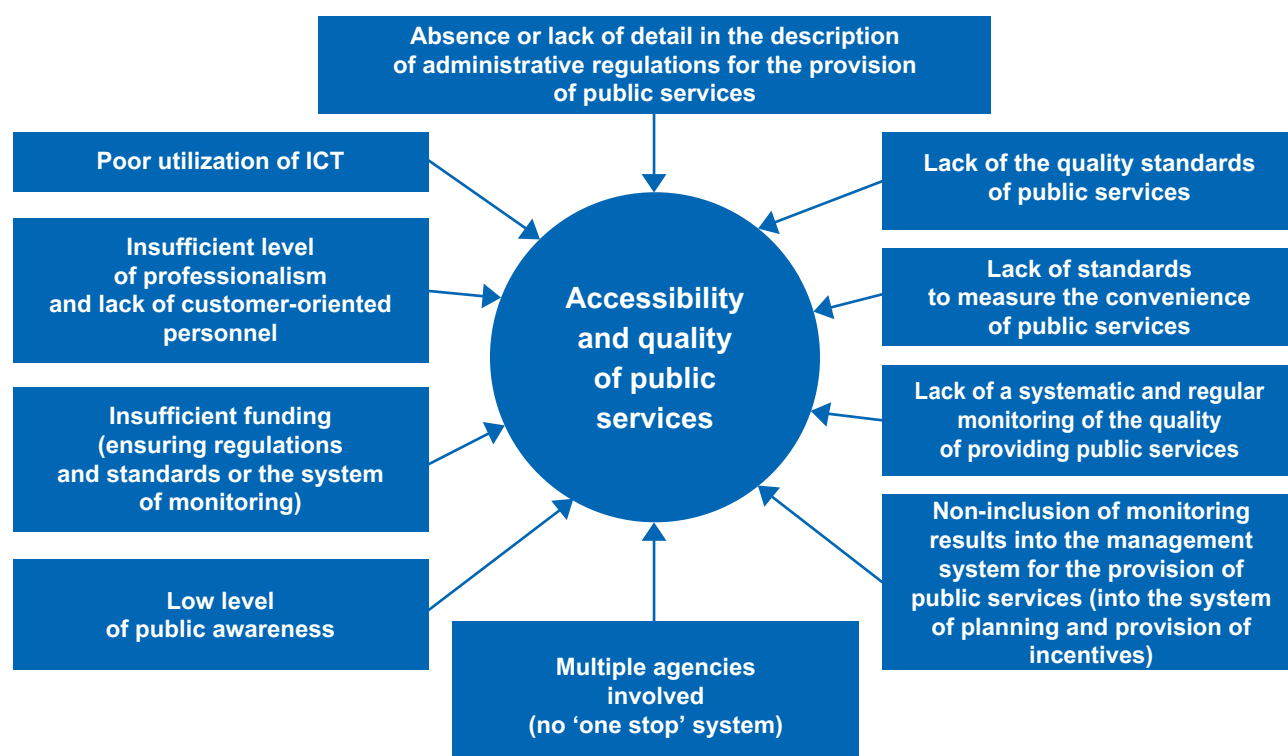
The principal factors negatively affecting the quality and availability of public services are given in fig. 3.1 in an easily understandable format.⁵²

It is evident that in order to improve the quality of public services and the time limits for the provision of such services by Tajikistan's executive authorities must also focus on the problems of developing e-Government and gradually pass through all stages listed above. The Government of Tajikistan demonstrated its commitment to the global trends and in 2011 adopted the Concept for the Establishment of E-Government, the implementation of which has already been launched.

Tajikistan's government actively seeks to reform the system of public administration, including functional reviews, reorganization of the Government, reforms in budget management, strengthening of the civil service system, and anti-corruption measures, plus the introduction of e-government. In general, it should be noted that the measures for the reform of public administration planned by the Government for next several years, should they be successful, will improve the efficiency of the system's functioning and the executive bodies' governing bodies, and thus contribute a great deal to the implementation of national development strategies.

⁵¹ Karimova M.T., Saifiddinov A.A., Sharipov B.M., Vazirov S.Z. State services in Tajikistan: Problems and Prospects. - Du-shanbe: "Irfon", 2013, 65 p.

⁵² Monitoring of government and municipal services in the regions as strategic tool for improving of regional governance: experience, problems, recommendations / S.I.Nedelko, A.V. Ostashkov, C.V. Matukin, V.N. Retinskaya, I.A. Murzina, I.G. Kraevsky, A.V. Lukanin, O.S. Koshevoy. Common Reduction V.V. Markina, A.B. Ostashova. - Moscow, 2008. - p.321

Fig. 3.1. Key factors negatively affecting the quality and accessibility of public services

3.2. LOCAL GOVERNMENT AND SELF-GOVERNMENT SERVICES

It is universally recognized that the system of public administration cannot be considered sustainable until it is supported with a functioning mechanism of local self-governance. Today economic and political reforms are implemented in Tajikistan, which radically change the life of the Tajik society and state. As part of the new Tajik state, and also in the context of the developing civil society, there are emerging problems of organizing local self-government and its functioning, and these problems need to be addressed without delay. However, at the present stage of the development of Tajik national identity the evolution of local self-government and ensuring its effectiveness are complicated by the insufficient detail of the concept of local government. The adoption of the new Constitutional Law “On Local Government Bodies” of 5 August 2005 and the amended Law of the Republic of Tajikistan “On Self-Governance in a Town and /or Townships” of 2009 did not significantly change the situation, as local self-government did not acquire organizational independence. In recent years attempts have been

made to overcome this controversial practice, but an insufficiently clear description of the legal nature of local self-government and the principles of exercising such governance within the framework of Tajikistan’s constitution bring these attempts to naught.

The process of the modernization of the governance system at the level of subnational entities is noticeably slower in Tajikistan than the development of public administration at the national level.

This is reflected in:

- poor development of potential, especially at the municipal level;
- lack of a clear delimitation of powers between different levels of public administration;
- local budgets lack their own income basis;
- unsatisfactory quality of services provided to the population and the business community.

With sufficient detail, the problems of local government and self-government are reviewed in the National Human Development Report 2011⁵³.

⁵³ National Human Development Report 2011. Tajikistan: Institutions and Development, UN Development Pro-gramme, Dushanbe, 2012

BOX 3.2.**CHARACTERISTICS OF THE SYSTEM OF LOCAL GOVERNMENT OF THE RT**

The existing system of local government in Tajikistan can be described as extremely centralized, with a strong vertical subordination of the state territorial administration at the level of the region, district, city/town and village (hereinafter referred to as jamoat). Local government institutions exist and their functions and services are provided in a complex and fragmented environment. As a result of duplication and “double subordination” of district level officials to central ministries and at the same time to the head of the district, their work becomes inefficient. Besides, there is a problem of the synthesis of executive and legislative powers at all levels of local government, where there is virtually no system of checks and balances.

Source: National Human Development Report 2011. Tajikistan: Institutions and Development, UN Development Program, Dushanbe, 2012

At present the Government of Tajikistan is in the process of implementing a complex reform agenda. The main purpose of the reforms is the improvement of the population's living standards and the promotion of economic development.

To achieve these goals the Government of Tajikistan adopted a long-term National Development Strategy until 2015 (NDS).

It should be noted that the reform of the governance system, including the issues of local government, was declared as one of the key priorities of both policy documents.

The overall approach to the reform of governance and institutional reorganization is formulated in the Public Administration Reform Strategy of the Republic of Tajikistan (PARS), adopted by the President of Tajikistan (# 1713 of 15 March 2006). The Strategy states that one of the key tasks of national development of Tajikistan is the creation of an efficient system of public administration, as the basis for the sustainable economic development and poverty reduction. Among the major tasks on the way to achieving this objective are “the necessity to develop administrative and territorial governance” and “creation of self-government bodies capable of providing quality services to the population”. Thus the optimization of the administrative and territorial division and a clear distribution of functions and powers among the central government, local government and local self-government are the key issues in the implementation of the PARS reform.

The most important task here is the improvement of the mechanism for the delimitation of the competences of government bodies and the local government. The principle of the delegation of authority is considered as a principle of the compliance of a given level of governance to a certain level of responsibility. In other words, any function, which may be efficiently fulfilled at a lower level, should be delegated to that level (subsidiarity principle). In the context of Tajikistan, a unitary republic some features of the ‘Asian model’ (the Asian development model is characterized by centralized executive power where the president appoints heads of local administrations from among his deputies, who must pursue presidential policy at the local level) the ‘partnership model’ is virtually inapplicable. According to experts the most suitable model able to “harmonize” the relations between the central and the local authorities is the “interdependency concept”. According to this concept, the republic's central authorities could interact with local bodies by delimiting these relations depending on a specific area of activity and granting absolute autonomy to municipalities within the scope of their mandates and most certainly in accordance with the law, as well as to establish effective supervision of activities that have been delegated to the authorities⁵⁴.

⁵⁴ Аминджанов Б.С. Правовые основы местного самоуправления в Таджикистане. // Юридические науки. – Москва, 2008, № 6.

3.3. NON-GOVERNMENTAL SECTOR

In Tajikistan, the term 'non-governmental organization' became mainly widespread at the suggestion of international donor organizations and replaced the traditional 'public association'. They ensure the analysis and expert assessment of political issues, act as a mechanism of 'early warning' and help exercise control of the implementation of international treaties.

In order to describe the current general state of Tajikistan's public sector, one should note that this sector is at the initial stage of development. These are public associations registered in accordance with the Law of the RT "On Public Associations".

Whereas in 1991, there were just 53 public associations registered by Tajikistan's Ministry of Justice, in 2002 that number rose to 869 NGOs. As of May 2014, 2753 public associations (PAs) were registered in Tajikistan's State Register of Public Associations. Their mandates includes almost all spheres of activity. For instance, they deal with the problems relating to the social protection of people, the issues of youth education, health, ecology, gender equality, as well as the problems of human safety and human rights. In many sectors NGOs closely interact with the Government. According to 2013 the civil society organization sustainability index conducted in Tajikistan under the aegis of USAID, the share of foreign aid in the total funding of local non-governmental organizations amounts to 75 per cent.

The analysis demonstrates that almost one third of Tajik NGOs deal with the problems of women, a quarter deal with the issues of education, science and culture, about 15 percent do charity and humanitarian work, and the rest advocate human rights and implement environmental projects.

In general, the following types of civil society organizations (CSOs) can be distinguished:

- organizations providing services to large groups of people - gender programs (for example, various programs for women empowerment), youth, children's programs and organizations related to them;
- programs for the development of individual groups of population - for example, ethnic minorities, provided as a rule also by organizations directly related to the specific

needs of beneficiary groups;

- programs to support certain segments of the population, namely disabled people, elderly, unemployed, migrants, refugees, adolescents, etc., and also to more specific groups of people - mothers of the military, people affected by the Chernobyl catastrophe, etc.

The difference between national and local PAs is primarily in their territorial coverage and the content of the strategy of organizations/associations.

The activity of national level PAs often contains elements of innovations, which after piloting are consequently implemented at the local level through the branches of these PAs and also by direct cooperation of the sector with non-governmental actors. The activity profile of national PAs is often very broad, although there are also non-diversified organizations whose mandates involve more specific problems of relating to social development.

Local PAs are more oriented towards solving local community problems associated with the peculiarities of local and regional development. Their activities are more closely associated with the current challenges of a society in transformation. These organizations, just as national ones, work both proactively and reactively, responding to the existing social needs.

An advantage of NGOs working at the local level is their ability to establish close relationships with local associations, provide assistance to such local organizations and integrate these into development processes. Such organizations as a rule quickly respond to new circumstances and can experiment with innovative approaches. The significance of NGOs working directly with citizens, their ability to reveal urgent problems at an early stage, and respond to them, including by notifying respective entities and thus serve as an indicator and a catalyst of social discontent cannot be overestimated.

The most recent large-scale survey of Tajikistan's private sector was conducted in 2009⁵⁵, and the findings of the survey were as follows:

- The process of cooperation between CSOs and the state is showing some signs of gradual and positive development.
- There are not just points of contact, but there are also successful achievements of finding joint

⁵⁵ Civil Society Development in Tajikistan. Yusufbekov Y., Babajanov R., Kuntuvdy N. Dushanbe, 2009.

solution to problems relevant to society at all levels: national (for example, CSO participation in the design of draft legislation, etc.), regional (for example, the influence of CSOs in solving socio-economic problems), local (solving problems of local communities).

- The forms of cooperation are very diverse and there is always a quest for new forms of cooperation.
- This being said, the attitude of government entities to CSOs varies in different regions and there is a need to promote a positive attitude by the general public and the government towards CSO goals and missions.
- Contemporary legislation offers opportunities for enlarging partnerships and cooperation between national CSOs and government entities at all activity levels while the positive experience of some central governing bodies and district authorities with regards to the engagement of CSOs in implementing various state projects. State projects can also be widely disseminated and popularized.
- At present, CSOs operate in all sectors of public life and governance. Their focus areas regarding the development of civil society in Tajikistan are diverse; CSOs play a very important role connecting society with the authorities, business and mass media, as well as with other institutions.

The quality and style of CSO operations have been changed. Initially, these organizations worked according to the principle of linking donors with CSO and target groups. Currently, cooperation takes the form of consultations with target groups to identify their priorities (sometimes CSOs are members of these groups). In addition, CSOs begin to actively interact with strategy developers. Bilateral meetings, conferences and round tables are conducted in order to discuss the agenda relating to essential development priorities.

One of the primary organizational and legal issues for local communities is that legislation does not cover activities of local self-government situated below the administrative level of jamoats of shakhrak and jamoats of dekhnot. This problem needs to be regulated by law.

The development of the non-profit sector in the regions is one of the fundamental conditions for the development of civil society in our country. A developed and effective non-profit sector is the backbone of civil society in any country.

Another problematic issue in the social partnership of CSOs remains the engagement of business communities and entrepreneurs of various levels into the development of civil society.

CSOs in Tajikistan presently face problems which when solved will affect to a great degree the future development of the entire private sector and which will seek:

- Increasingly diverse awareness-raising activities
- Broadened participation of citizens and beneficiary groups
- Promotion of further democratization

CSOs establish relationships with different branches of authority, namely engaging in dialogue with and reaching out to various advisory bodies (councils, committees) and government entities and also list as a primary achievement their ability “to counteract wrongful attacks by the authorities”.

In general, the contribution by CSOs to Tajikistan’s democratic developments is lower than it could have been. Neither citizens, nor the authorities perceive CSOs in their region as something cohesive and occupying a clearly determined public relations niche. Many people know about CSOs, but cannot say exactly what they do.

The community itself needs awareness-raising: discussions within other CSO sectors, and NGO colleagues. Besides, joint expert discussions and meetings with representative authorities on current issues are needed. This is perceived as virtually the only opportunity to establish normal relations with the authorities, identify policy makers with favourable views and promote necessary changes and ideas through these policy makers.

Access to economic resources aimed at increasing the Tajikistan's population's well-being

“Economic resources” are understood usually as all types of resources used in the process of the production of goods and services. This is why they are often called production resources, factors of production, or factors of economic growth.

Economic resources include:

- natural resources (land, subsoil resources, water, forest and biological resources, raw materials, climatic and recreational resources), in short - land;
- labour resources (people with their capacity to produce goods and services), in short - labour;
- capital resources (means of production, i.e. real or physical capital);
- financial resources (in the form of monies, i.e. monetary capital)
- entrepreneurial capacities (people's ability to organize the production of goods and services), in short - entrepreneurship;
- knowledge and information necessary for economy (technologies, technological development, science and intellectual potential).
- government reserves which are created by the state and replenished on a regular basis consist of strategic reserves of raw materials and materials, fuel, some types of equipment, food and other material products needed for the continuous operation of the economy in case of emergencies, essential for defense , etc.

The combination of two situations typical for economy - unlimited needs and limited economic resources lays the foundation for the entire economic system and economic theory. Access to economic resources is of utmost importance for development in general, and this is especially important from the human development perspective.

4.1. EXPANSION OF THE ENERGY INDUSTRY AND PROVISION OF ENERGY SECURITY

Tajikistan has a rich energy potential for economic growth primarily in terms of its hydropower resources. Tajikistan ranks 85-th in the world in terms of the size of its territory and has potential stocks of hydropower resources equal to 527 bln. kWh/year. The country, ranks eight after China, Russia, USA, Brazil, Zaire, India and Canada. In terms of specific per capita and per one square km it ranks first and second 2nd in the world. The country has considerable stocks of coal with known reserves of 1,130 million tons, including 670 million tons of industrial grade quality coal⁵⁶. Recently, a number of major international gas companies have become very active in Tajikistan. These are Gazprom (Russia), TOTAL (France), and CNPC (China). These investments give credence to the country's existing estimates of considerable gas reserves. Tajikistan also has favourable conditions for the use of non-conventional (alternative) renewable sources of energy, primarily solar and bioenergy.

In order to analyse the problems of access to energy resources, it is necessary to consider the distribution of available energy resources and the country's population's density. Significant variations of soil and climatic conditions predetermined the rather irregular distribution of Tajikistan's population and its density. As shown on map (fig. 4.1.)⁵⁷, the republic's industrial and populated areas are found in two major agglomerations⁵⁸ - Northern and South-Western which are divided by three mountain ranges. The characteristics of major Tajik agglomerations are given in Table 4.1. Almost

⁵⁶ Таджикистан. Природа и природные ресурсы. Душанбе. Дониш. 1982.

⁵⁷ Таджикистан. Природа и природные ресурсы. Душанбе. Дониш. 1982.

⁵⁸ Agglomerations are understood as the spatial concentration of population in certain areas with high residential density.

Fig. 4.1. Geographical location of the population of the Republic of Tajikistan

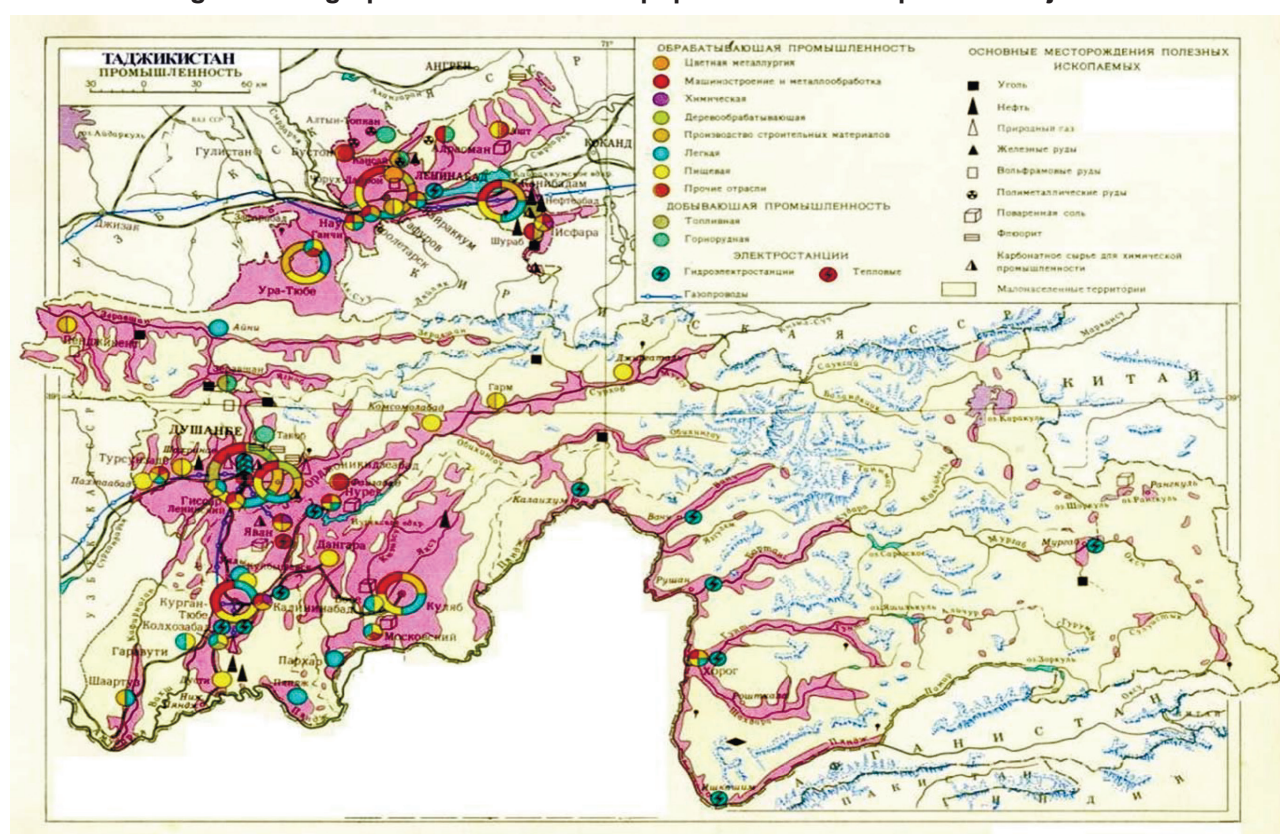


Table 4.1. Location of hydropower resources per key agglomerations

Regions	Annual average energy production bln., kWh	Annual average output, thousand kW	Hydropower resources, %	Hydropower density kW/km ²
Sughd Region	36,22	4135	6,8	169,2
GBAO	116,13	13258	22,1	234,0
Southern Tajikistan	374,70	42774	71,1	693,0
Country, total	527,05	60267	100	425

thirty percent of the population lives in the Northern agglomeration and contributes almost the same share to GDP. Almost two thirds of the population and an equal proportion of GDP belong to the Central-South-Western agglomeration.

If one considers the distribution of the most used energy resources (– hydropower), one can draw the conclusion that even with high stocks of hydropower resources, Tajikistan nevertheless suffers from extremely irregular electrical distribution among the said agglomerations. Data to this effect is provided in Table 4.1.

Considering the above, there are three territories in Tajikistan which depend on population density and which have large amounts of energy reserves:

1. Central South-Western region which is characterized by sufficient energy generation facilities. However, their irregular distribution during the year due to the prioritization of irrigation over power generation means that energy is generated in excess during summer while the winter months suffer from shortages;
2. Northern region characterized by a shortage of energy generation facilities in contrast to quite well-developed industrial and agricultural sectors;

3. Zones of decentralized energy supply (GBAO, Rasht and Zeravshan valleys), which due to low population density and sparsity cannot be supplied with energy from centralized energy generation sources.

One of the main goals of the energy sector is to ensure safe and quality access to energy for the country's entire population, industry and services, as well as for the efficient use of energy to reduce poverty.

Since the end of the Soviet era, Tajikistan has retained a quite diverse system of centralized electricity supply covering over 90 percent of the country's populated area; and by 2011 a unified energy system connecting the southern energy system with the northern system was established. This development considerably increased opportunities of physical access for the entire population to energy supplies.

However, actual access to safe energy for the majority of population both in the autumn and winter remains one of the critical issues for the country's development. Every winter, the country faces an energy crisis. In winter months (November - April/May) a regime of limited electrical use is introduced. As a consequence, the majority of the rural population has access to electricity only three to seven hours a day and with a poor quality of power supply characterized by frequent outages, low voltage, etc. In addition, because of the country-wide transition to the use of electricity for heating and cooking, the consumption of electricity by households in comparison to the 1990s has increased more than four-fold - from 1 bln. kWh up to 4.5 bln. kWh/year. As a result, 5.6 million people living in rural areas (constituting 73 percent of the population consume just nine percent of the total volume of electricity supply. The winter energy shortage is 2.2 - 2.5 bln. kWh, which makes it necessary to introduce official electricity supply restrictions. The said electricity shortage is estimated at the level of 2,700 Gigawatt-hour (GWh/h), i.e. and represents approximately a quarter of the total electricity demand which causes economic losses, and according to annual estimates annually amounts to more than 200 million US dollars or three per cent of the country's GDP⁵⁹.

The current state and level of development of the fuel industry do not correspond to the country's increased fuel demand. Out of a total volume of consumed fuel only 30-35 percent stems from domestic sources. On the other hand, there are significant difficulties in supplying natural gas to consumers.

Access to safe electricity supplies became a critical issue for the country's economic development, poverty reduction and attainment of MDGs. This situation considerably affects the operation of industrial plants, the service sector, while negatively affecting the output and performance of companies. The negative impact of the limited electricity supply is especially felt by small and medium businesses. Utilization of imported gas with due regard to rising fuel prices is reflected in the increased costs of production.

Due to an insufficient amount of domestic fuel, coal produced in Tajikistan as well as imported liquids (oil products), gaseous (liquefied gas) and solid fuels (coal, firewood and coal bricks) are used to satisfy the needs of household heating and cooking needs. In addition, in rural areas people use dung cakes, cotton plant stems and other types of waste. Furthermore, the process of replacing fossil fuels with low-tariff electricity is observed everywhere. The share of electricity for the heating of rural households is 2-16 percent, firewood accounts for 35-85 percent, and other sources of energy come from dung cakes, coal, liquid and gaseous fuel. In urban households electricity accounts for 35-40 percent of energy use, firewood - 30-35 percent, coal - about 15 percent, and the rest are liquid and gaseous fuel plus dung cakes.

One of the key problems of ensuring safe heating supply is the population's poverty. Households expenditures for fuel in the winter make up to 50 percent of their income. In particular, one family's expenditures for firewood is estimated at 30 TJS/month, for coal - 40 TJS/month, for electricity - (only lighting and household appliances) - 25 TJS/month, other fuels (including also liquefied gas) - about 40 TJS/month.

Unreliable energy supplies and the lack of modern and affordable sources of heat have a serious impact on the environment. Felling down very

⁵⁹ Energy Crisis in Tajikistan in the Winter Season: Alternative Options to Balance Supply and Demand. World Bank, 2012.

valuable mountain forests contributed to the loss of the forest belt, endangered biodiversity and greenhouse gas emissions. According to the surveys conducted in some rural areas of the country seventy to eighty percent of the tree belt of the country were lost during the last 20 years because of high energy demand. Wood-felling and forest degradation aggravated soil erosion, which decreased soil fertility and increased the vulnerability of rural population to natural disasters, such as landslides and floods.

The lack of heating in public buildings such as schools and hospitals created additional risks for children and other vulnerable groups, in particular during the winter months.

4.2. DEVELOPMENT OF THE PRIVATE SECTOR AND ENTREPRENEURSHIP

The sustainable development of any economic system is impossible without taking into account changes to an economy's private sector. This is due to the fact that entrepreneurship plays an important role in a market-driven economy, and its development is an indicator of the success of economic reforms that promote the development of a competitive market environment.

Tajikistan undertakes active measures to develop the private sector and entrepreneurship. For example, since 2008, the Government simplified the procedure for the establishment of a private business: excess procedures were abolished, the requirements regarding the size of minimum capital were lowered, and a single centre for business registration was established.

Furthermore, the Government adopted amendments in the licensing and construction sectors, which simplified the procedure for issuing construction permits. The Government also adopted a law providing for the establishment of a "one-stop shop" for construction companies.

The Government also elaborated a number of amendments to the Customs Union which serve to reduce the number of documents required for customs clearance and processing. With support from IFC World Bank, the Government

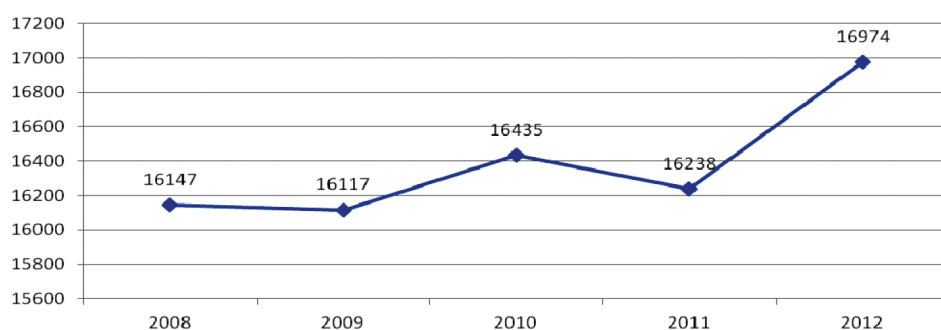
of Tajikistan developed a new law "On Public-Private Partnership", which was adopted at the beginning of 2013 and provides incentives for the inflow of investments into the infrastructure and social services. On 12 November 2012, Tajikistan became the 147th member of the Convention on the Recognition and Enforcement of Foreign Arbitral Awards known as the New-York Convention⁶⁰. The Convention commits the courts of member states to give effect to arbitration agreements and to recognize and enforce court decisions issued in other member states. The accession of Tajikistan to the New-York Convention was considered by foreign investors as an issue of high priority. Despite the adoption of the new Tax Code in 2012, tax administration still remains a weak link in Tajikistan's business environment. The Government also launched work to cancel unnecessary procedures, ease demands regarding the minimum capital, and create a one-stop system.

These reforms, which made it possible to improve to a certain extent the country's business environment and ensure a better protection of investors' rights, resulted in an improved rating for Tajikistan in the Doing Business Report prepared by the World Bank Group. During the last five years, Tajikistan has already been ranked twice (in 2010 and 2012) among the world's top ten countries and was cited as the country which achieved the most progress in improving its business environment. However, Tajikistan was ranked 141st among 185 countries of the world in 2013's Doing Business. Although Tajikistan in comparison to previous ratings moved forward for such indicators as the protection of investors and registration of ownership, the country belongs to the five percent of the world's countries with the worst indicators per five categories for such activities as obtaining construction permits, connecting to the electricity supply system, credit financing, taxation and international trade⁶¹. For the sake of comparison, one can say that among CIS countries Georgia ranks better than others (8th position), and Lithuania (17) and Latvia (24) also rank among the top three while Russia ranked 92. Among Central Asian countries, Uzbekistan had the worst ranking at 146 while Kazakhstan and Kyrgyzstan ranked 50 and 68 respectively. Turkmenistan was not included in the rating.

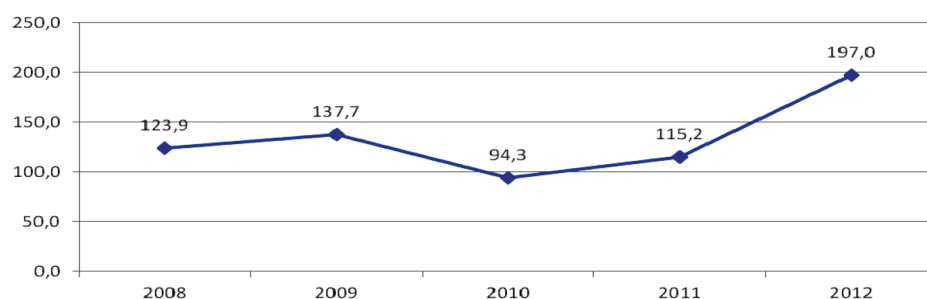
⁶⁰ World Bank, Short Review of Tajikistan's Program, October 2012

⁶¹ Doing Business 2013. <http://russian.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/Foreign/DB13-Overview-Russian.pdf>

**Diagram 4.1. Change in the number of self-employed citizens
(according to the number of issued patents and licenses) in the RT, in thousands**



**Diagram 4.2. Change in the number
of operating small enterprises doing business in the RT, units**



BOX 4.1.

TAJIKISTAN'S BUSINESS ENVIRONMENT

Currently, the procedures for market monitoring and surveillance are not transparent, too burdensome for businesses and do not guarantee effective protection from regulatory entities. Entrepreneurs encounter high business costs, which emerge due to regulatory discrepancies or the lack of certain legal provisions, poor implementation of the law, widespread practice of interference of central and local authorities with economic activity and associated decision making.

Source: Public Administration Reform Strategy of the Republic of Tajikistan, adopted by Presidential Decree of the President of the Republic of Tajikistan n #1713 dated 15 March 2006

In addition, there are also other difficulties not included in the Doing Business methodology. According to Tajikistan's 2011 World Bank's Economic Memorandum, companies encounter various limitations, related to the following issues: (1) tax policy and the system of tax collection, (2) electricity supply, (3) corrupt practices in interacting with state officials; (4) access to financial resources, and (5) low levels of skills and lack of qualifications of members of the labour force⁶².

One of the latest large-scale business environment surveys in Tajikistan⁶³ was conducted in 2009 which was based on findings of a survey of 1,500 businesses owners across all regions of the country and in four key economic sectors.

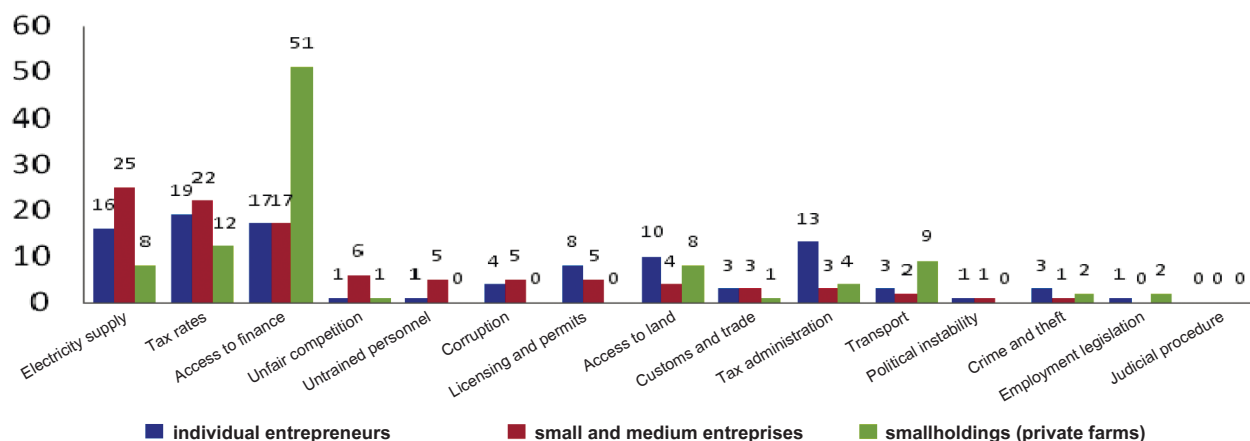
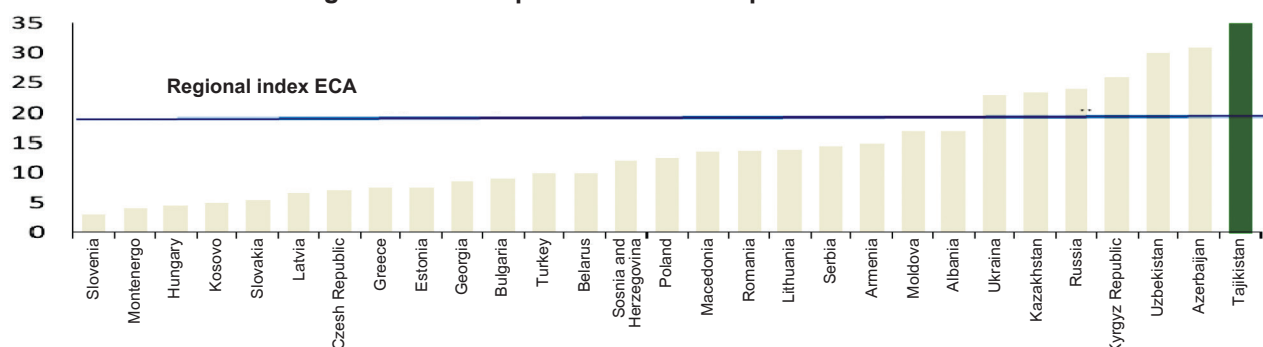
The findings of that survey show that the direct costs of four of the most frequent administrative procedures mean on average additional twenty-seven percent of the profit of a small and medium enterprise.

⁶² Report on the Partnership Program of the World Bank Group and the Republic of Tajikistan, 2013.

⁶³ Business environment in Tajikistan as viewed by small and medium businesses. IFC, SECO, DFID, 2009 г.

Table 4.2. Distribution of businesses as regards the costs of administrative procedures

	Licensing	Permits	Inspections	Certificate	Total
Individual entrepreneur	1,3	0,8	1,2	0,8	4,2
Small and medium enterprise	4,0	6,2	10,5	6,1	26,7

Diagram 4.3. Representation of business owners according to barriers in business**Diagram 4.4. Corruption Index in Europe and Central Asia**

Small and medium enterprises (SMEs) are the backbone of the country's economy. Thus, it is crucial for officials who are responsible for designing policy to support entrepreneurship to take measures to improve the business environment, in particular for small and medium enterprises. The representatives of Tajik SMEs name access to electricity supply, tax rates and access to finance as the major barriers hampering the country's levels of business activity⁶⁴.

Eighty per cent of firms, which participated in another survey⁶⁵ named the unreliability of the electricity supply system, which negatively affects the development of business, among one of the

main barriers hampering business activities in Tajikistan.

According to the business community, a significant barrier for private companies in Tajikistan is the high levels of corruption, i.e. unofficial payments that officials ask from entrepreneurs. This is confirmed by data by the World Bank Enterprise Survey, according to which Tajikistan has the highest Corporate Corruption Index in Europe and Central Asia. The corporate corruption index is the quantitative ratio of instances when an entrepreneur was expected or asked to present a gift or execute unofficial payments for utility services, issuance of a license or a permit.

⁶⁴ Business environment in Tajikistan as viewed by small and medium businesses. IFC, SECO, DFID, 2009 r.

⁶⁵ Business Economic Environment Survey, World Bank, 2000.

An analysis of the development of small businesses has demonstrated that despite measures taken, there are still no conditions that can contribute positively to increasing the number of small enterprises and also their effective and sustainable development. In effect, small businesses have not yet become the basis for the economy's growth and stabilization. A solution to this problem is impossible without creating a special policy and legal framework to support small businesses.

In March 2013, Tajikistan acceded to the World Trade Organization (WTO) following thirteen years of negotiations. This event can bring about dramatic changes in all spheres of the economy. Being a member of the WTO means that Tajikistan joins the system of multilateral trade, i.e. the global market. Tajikistan undertook to fully fulfill the requirements of WTO requirements without the benefit of transition periods. During the accession process, Tajikistan adopted over one hundred legislative acts and provisions regarding the application of WTO agreements within the limits of domestic legislation. It is expected that these reforms starting from issues of company registration and principles to enhance the transparency of taxation, standards and technical specifications, customs regulation measures, protection of intellectual property and licensing of imports, will secure the country's economic transformation and provide the foundation for economic growth and development. However, in such circumstances the country's economy will experience the impact of the permanently ongoing changes of world production and global trade, both positive and negative.

Considering the aforesaid statements, there are risks for businesses operating in Tajikistan and the most real and substantial issues are as follows:

1. The high levels of risk for businesses, which toughens the requirements for entrepreneurs starting their own company. This threat comes as a result of liberalized access of foreign agents to the domestic market. In addition, lifting tariff barriers could cause insolvencies among SMEs, in particular for those operating in the country's manufacturing sectors.
2. The risk of increased operating costs for enterprises due to the inevitable increase of energy tariffs, especially electricity tariffs. For most domestic entrepreneurs rising prices in this sector may predetermine their insolvency or a switchover to the "shadow economy".
3. The risk of reduced marketability of domestic SMEs, which could lead to their insolvency which could, in turn, have negative consequences for society as a whole.
4. The risk of an increased tax burden for SMEs, which has already become the main deterrent to business development.

No doubt that following Tajikistan's accession to the WTO, domestic SMEs now have unique opportunities which they did not previously have. For example, good opportunities are presently emerging for the manufacturing sector, primarily for those companies that produce highly processed goods. The main WTO tariff concessions focus especially on these product families. Unfortunately, the number of such enterprises is currently negligibly low in Tajikistan.

BOX4.2. **FREE ECONOMIC ZONES**

Free Economic Zones are specially designated areas with favorable customs, tax, currency regulations, encouraging the inflow of foreign capital into industry and services, foreign-owned production trade and other types of entrepreneurship, and the development of export capital.

Currently free economic zones (FEZ) are considered in the world as one of the effective tools of public policy to accelerate economic growth. They have already become a regular feature of the world economy as a development factor due to intensified international commodity circulation, mobilization of investments, exchange of technologies, information, deepening integration processes in the economy which are all an integral part of international economic relations. In certain conditions, free economic zones accelerate the inclusion of the country into the world's economic relations and stimulates economic development of the country as a whole, and serve as economic growth poles.

According to various experts, there are currently 1200 to 2000 free economic zones of different types worldwide.

Table 4.3. Classification of free economic zones⁶⁶

Trade zones are among the simplest forms of FEZs. These exist since the 17th-18th centuries. Such zones are found in many countries, but they are mostly common for industrial countries.	Industrial zones are second generation zones. These appeared as a result of the evolution of trade zones, when apart from commodities capital also began to be imported.	Technical and innovation zones - these are third generation zones (1970 - 1980). National and foreign research firms using the unified tax concession systems are concentrated here.	Service zones are territories with a favorable regime for firms' entrepreneurial activity and organizations providing financial, economic, insurance and other services.	Integrated zones are formed through the establishment of a special favorable regime for economic activity on the territory of individual administrative units.
<ul style="list-style-type: none"> ▪ Free customs zones ▪ Bonded logistics parks ▪ Free ports ▪ Trade and production zones 	<ul style="list-style-type: none"> ▪ Import-substituting zones ▪ Export processing zones ▪ Industrial parks ▪ Research and production parks ▪ Export and import-substituting zones 	<ul style="list-style-type: none"> ▪ Urban enterprise zones ▪ Technology parks ▪ Innovation centres 	<ul style="list-style-type: none"> ▪ Off-shore zones ▪ Bank and insurance services ▪ Tourist zones 	<ul style="list-style-type: none"> ▪ Free enterprise zones ▪ Special economic zones ▪ Special treatment territories ▪ Special economic zones

The Government of Tajikistan also tries to use this tool for overall national development and entrepreneurship in particular. It considers the development of free economic zones as an important element for the country's economic strategy, trade, mobilization of investments and market diversification. For example, in order to regulate the procedures and conditions for the application of a special legal regime for the business and investment sector, and to support the efficient functioning of AEZs according to international regulations and standards the Law "On Free Economic Zones in the Republic of Tajikistan" was adopted by the Resolution of the Majlisi Namoyandagon Majlisi Oli (Parliament) of the Republic of Tajikistan on 23 February 2011 #338. This law included the participation of international organizations, such as the US Agency for International Development (USAID).

Currently, four FEZs have been created and operate in the country⁶⁷:

- "Panj" (integrated) is located in the Qumsangir District of Khatlon Region and covers an area of 401.6 hectares;
- "Sughd" (industrial and productive sectors) is located on 320 hectares of territory in the

administrative centre of Sughd Region - the city of Khujand;

- "Danghara" (production and innovation sectors) is located in Danghara District of Khatlon Region, and its territory covers 521.3 hectares;
- FEZ "Ishkoshim" (production and business) is located on the territory of Ishkoshim District of GBAO covering 200 hectares.

The said FEZs enjoy favourable customs, taxation and currency regimes.

Following are some advantages:

- FEZ entities are exempt from all taxes provided for by Tajikistan's Tax Code, except for social and income taxes of employed individuals
- The profits made by foreign investors and wages of foreign workers received in foreign currency can be taken abroad, and are not subject to taxation in this case;
- On the territory of FEZs with free customs zone regime foreign and domestic goods are not subject to customs duties and taxes, and republican regulations on economic prohibitions and restrictions do not apply to goods;
- The annual rent for exercising economic activity on all FEZs is only \$1 per one square metre;

⁶⁶ www.Grandars.ru – economist's encyclopaedia

⁶⁷ Data from Tajikistan's Ministry of Economic Development and Trade

- The cost of a certificate for any type of economic activity independent of the volume of production and commodity circulation is \$5,000. Certificates for commercial activity are issued for a period of 10 years while for an activity involving production it is 15 years.

However, the process of establishing a free economic zones (FEZ) in Tajikistan is advancing very slowly. According to the data of the Ministry of Economic Development and Trade, Tajikistan's FEZs manufactured in 2012 goods with an overall value of more than 17 million TJS (more than \$USD 3.6 million). Of this, more than 98 percent of this amount was earned by companies registered at Sughd FEZ.

4.3. COMMUNICATION SERVICES

Information has acquired critical importance in the economies of states. The main factors ensuring full-scale economic development include the availability of communication services, the state of information technologies and software innovation. An analysis of global trends shows that the world's advanced countries are focusing on the transition to a post-industrial economy whereby the share and the overall number of people employed in the information sector has been growing steadily. The experience of countries that made considerable progress in information and communication technologies (ICT) and their ambition to employ new technologies as a primary tool for securing one's niche in the global economy are evidence of the importance of ICT implementation.

ICT are increasingly used in various spheres of human activity and, as one of the most essential development tools, contribute significantly to humankind's enhanced economic, technological, social and cultural development. It is knowledge and information technologies that play an important role in today's world by improving the economic potential of many countries.

By ensuring access to information and enabling individuals to acquire knowledge as well as to participate in political and social life, ICT contribute to improved well-being and sustainable development. Although ICT are spread at an ever increasing rate and sometimes reach the most remote corners of the earth, there nevertheless exists a considerable technological gap between developed and developing countries. Currently, this disparity is growing rapidly: the greater share

of the world's population does not have access to traditional telecommunication services, let alone to the most recent technologies.

Tajikistan's Government understands that promoting ICT utilization in various activity and economic sectors and developing a knowledge-driven economy will stimulate further economic growth, improve the well-being of the Tajik people and contribute to poverty reduction. In recognition of the potential significance of information and communication technologies for economic development, Tajikistan's Government declared the ICT sector as one of its priority development sectors and as a consequence consistently creates conditions for its further expansion.

Currently, telecommunications are rapidly developing in Tajikistan and have already become one of the economy's most important sectors, influencing overall economic growth and development. In particular, a re-distribution of services is being observed. Traditional providers such as the fixed telephone network are steadily losing their significance while the share of hi-tech and high-yielding telecommunications services is growing. At present, the modernization of most telephone networks has been completed, and 95 percent of obsolete analogue and automatic telephone stations have been replaced with digital stations. Phone usage has reached 4.5 landlines per 100 population while mobile communications stands at 32.56 per 100 of the country's population. According to collected data, the share of the population using computers at home has reached 0.4 percent (estimated predicted value is four percent). Tajikistan also pioneered 3G telephony among the countries of the Commonwealth of Independent States (CIS).

The mobile communication market in Tajikistan has been developing since 1996. There are nine companies competing with each other, eight of them located in Dushanbe and one operating out of Khujand. The country's leading mobile telecommunications company is CJSC Babilon-M, which represents 34.1 percent of the market. In 2009, a unified brand was developed for the Eurasia group of companies with Indigo Tajikistan and Somoncom SP entering merging under the new Tcell brand name. These companies have 28.8 percent of the market. Takom LLC, a Tajik mobile operator, is licensed to provide mobile communication services on Tajikistan's territory using GSM 900/1800 UMTS standards, and 80 percent of Takom LLC belongs to the Russian

VympelKom OJSC. Today Takom LLC is promoting the Beeline brand and has 19.9 percent of the country's total mobile communications market.

To date, there are 19 Internet providers in Tajikistan. In 2010, the leading Internet provider was CJSC Babilon and its share of the market stood at 47.4 percent. The market for Internet providers is only slowly expanding, which can be explained by poor user knowledge, high internet access tariffs, as well as an undeveloped information, and communication infrastructure, etc.

In 2010, Tajikistan had more than 800,000 personal computers while more than 15 thousand computers are sold annually in the country ⁶⁸.

Meanwhile, information resources on the Internet are developing quite dynamically. Registrations in the .tj zone began in 2004 and as early as 2011 the overall number of domains exceeded 6,000. This being said, there is still enormous potential for growth. The density of internet web sites is 0.03 per 100 population. The share of governmental institutions operating web sites is 37.5 percent of the overall number of institutions, and the share of organizations with their own web sites is 0.4 percent of the country's overall number of organizations⁶⁹.

Local area networks are installed in many of the republic's institutions. An analysis of governmental bodies in 2007 found that the use of local computer networks in the offices of government bodies was 34 percent, and 22 percent of bodies had corporate computer networks (CCN).

According to the 2013 Global Report on Information Technologies, Tajikistan ranks 112 in the Networked Readiness Index. The full text of the latest report and a detailed methodology of the index and data sources can be found at: <http://www.weforum.org/gitr>.

The following problems have a considerable impact on the growth rates of Tajikistan's information and communication services market:

- The decreasing literacy level of the population;
- Predominance of the rural population (see Chapter 1), which creates considerable

differences in the levels of access to information resources between the different social groups, urban and rural communities, women and men. The problem of access to territorially remote information resources is not resolved;

- Limited electricity supply in winters and frequent electricity outages in most parts of the country;
- Barriers hampering access to the telecommunications infrastructure;
- Open sources of statistical information about the ICT market are limited;
- Insufficient numbers of qualified ICT personnel;
- Information services, resources and software (information potential) are distributed over Tajikistan's territory extremely unevenly and are mostly found in Dushanbe.

The state has a strategic role in shaping the telecommunications sector as it determines the sector's policy, formulates its legislative framework and regulatory measures and also sets guidelines for interacting with foreign telecommunication sectors.

To address some of the issues mentioned above, the Government prepared a number of key studies analyzing the state and country's development in relation to the requirements of a contemporary information society. As a result, seven laws were adopted in the past several years regulating ICT activity. In addition, other regulatory acts were adopted to ensure the development and implementation of fundamental norms underlying these laws. In particular, the State Strategy for Information and Communication Technologies in support of the Republic of Tajikistan's Development was adopted by Presidential Decree #1174 on 5 November 2003. The goal of this State Strategy is the implementation of measures to create conditions and develop mechanisms to facilitate the establishment of an information society in the country.

In addition, it seeks to develop and revive various branches of activity based on the broad utilization of ICT as well as implement a Poverty Reduction Strategy, develop significant job creation, and improve labour productivity as a result of ICT application.

⁶⁸ Исследование по состоянию внедрения ИКТ в Республику Таджикистан: оценка различных факторов, определяющих информационную готовность Таджикистана к участию в информационно связанном мире - Душанбе: 2010. - с.22-23.

⁶⁹ Файзуллаева Ш.И. Оценка развития информационно-коммуникационных технологий в Республике Таджикистан// Материалы международной научно-практической конференции "Тенденция развития экономики и образования", посвященной 20-летию независимости Республики Таджикистан. - Душанбе, 2011 г.

Among other important national ICT regulatory acts are: the Presidential Decree “On Adopting the Concept of Information Security of the RT” (#1175 dated 7 November 2003); Enactment of the Tajik Government’s “Program to Ensure the Republic of Tajikistan’s Information Security” (#290 dated 30 June 2004); Enactment of the Government of the RT “On the Adoption of the State Program for the Development and Implementation of Information and Communication Technologies in the RT” (#468 dated 3 December 2004); Decree of the President of the RT “On the Adoption of the Concept of State Information Policy” (#451 dated 30 April 2008).

CIS countries, including Tajikistan, are currently on the periphery and virtually do not participate in development and information exchange. Covering a large portion of the European and Asian continents, these former USSR countries have a number of advantages, including a short land-based route for data transfer from Asia to Europe⁷⁰.

CIS countries also possess transit potential.

The region is situated on the only short ground-based data transfer route from Asia to Europe, which allows for an optimal rate of data transfer. However, currently these competitive advantages are not fully exploited as most transit traffic goes beyond CIS countries, in cables on the sea bottom of two oceans and the territory of the US⁷¹.

Transit traffic services require the availability to lease communication channels. Thus, control of its own fibre optic communication network is the country’s main prerequisite for being able to compete in the international data transfer market.

The predicted volume of worldwide traffic, as shown below, demonstrates the enormous potential of CIS countries, including Tajikistan, to become an integral part of the global information society subject to the creation of a qualitatively new infrastructure connecting information communities within post-Soviet states to global information communities.

BOX 4.3.

FORECAST OF WORLDWIDE TRAFFIC

According to the 2010 forecast by Cisco Systems, the leading world manufacturer of network telecommunication equipment, the following forecasts were made:

- In 2014, video will become the greatest generator of Internet traffic and the share of video in global consumer internet traffic will exceed 9 percent while the number of users of visual network services will exceed one billion. By 2014, the volume of global Internet traffic will grow more than fourfold and will amount to 767 exabytes. This is ten times more than the total traffic in IP networks in 2008. The most important factors of fourfold IP traffic increase will become the popularity of high definition TV (HDTV) and three-dimensional TV(3DTV);
- By 2014 the traffic associated with global file exchange will amount 11 exabytes a month. The traffic associated with file transfer via Internet and other means will annually increase by 47 percent.
- Cisco Systems predicts global business IP traffic at 7.7 exabytes a month by 2014. The traffic related to business videoconferencing will develop most rapidly, especially the web conferencing segment. For the sector, mean annual growth rates at the level of 183 percent are predicted;
- The volume of global mobile broadband data traffic in 2014 will reach 3.5 exabytes a month or over 42 exabytes a year. The share of consumer IP traffic (including web surfing, instant messaging, user video, and so on) will amount 87 percent by 2014. Corporate IP traffic (including email, voice communications, Internet, web conferences and high definition web conferences) will account for thirteen percent of the monthly IP traffic.

Source: Cisco Systems. Study Visual Networking Index 2009 - 2014. 2010

⁷⁰ Ключева Т., Волкова Е. (2008) О перспективах развития транзитного телекоммуникационного потенциала Казахстана. Информационные телекоммуникационные сети.

⁷¹ А.М. Абсаметова, Е.Ю. Винокуров, М.А. Джадралиев (2010) Интеграционные процессы в телекоммуникационном секторе стран СНГ. Отраслевой обзор №9, Евразийский банк развития.

Despite the existing difficulties, the Republic of Tajikistan has a certain potential for building a knowledge-driven economy. Building a knowledge-based economy and implementing and utilizing new information and communication technologies can promote the country's transition to a new, higher level of development for all spheres of activity and ensure its integration into the global information community. The continued implementation and development of ICT in Tajikistan will materially contribute to the improved well-being of the population and to overall poverty reduction⁷².

4.4. FINANCIAL MARKET IN THE REPUBLIC OF TAJIKISTAN

Finance plays a crucial role in fulfilling the ambitious growth plans of developing countries and greatly affects the economy's investment climate and attractiveness for foreign investors.

Financial intermediation in the country remains underdeveloped. Tajikistan is characterized by the low level of credits and deposits as compared to other countries. An analysis of recent years shows that the share of loans to the private sector in 2011-2012 was estimated at 13.5 percent of GDP and the amount of deposits was 16.2 percent of GDP, which represents an increase in comparison to 15.4 percent in 2011⁷³.

In general, Tajik companies do not have access to long-term financing. According to analysts from Somon-Capital⁷⁴, most Tajik private sector projects are predominantly funded with a project owner's private funds. Tajikistan's banking system mainly provides only short-term (up to 12 months) financing at loan rates of 30-36 percent per annum. This is due to the limited capital supply. The banking sector's sources of capital are mainly the deposits of private and institutional clients and investors' private funds. Tajikistan's lack of capital markets means that corporate sector deals cannot be financed by shares or bond securities. Banks also encounter liquidity shortages due to the maturity mismatches of bonds and increasingly depend on subsidies from the National Bank of Tajikistan (NBT) to support liquidity and cover their basic financial needs.

BOX 4.4. CURRENT PFM EFFECTIVENESS

As regards fiscal discipline:

- The existing treasury system lacks sufficient tools to effectively manage the process of budget implementation and reporting. The System of a Unified Treasury Account (UTA) has been implemented only in part, i.e. local budgets work through separate bank accounts at commercial banks, and special extra-budgetary funds of state-run organizations are channelled through separate accounts;
- Tax revenues are still quite low, partly due to tax exemptions and also as a result of shortcomings in the management of tax collection (which means considerable tax arrears). Furthermore, there is a significant quasi-fiscal deficit due to the activities of state-run unitary enterprises (SUE);
- Tajikistan's accounting system is fragmented: the card of accounts differs from the budget classification, which renders basic budget controls inefficient; the card of accounts lacks sufficient detail to allow for a meaningful analysis of receipts and expenditures to support efficient decision making; the accrual basis of accounting in state-funded organizations does not meet international standards.

As regards the distribution of resources:

- Open competition for budget resources with due account of state policy goals is still underdeveloped in the PFM system. The authorities' lack of integration at central level and the currently developing relationship system between different levels of management complicate the resource distribution process in accordance with strategic goals. The transparency and open discussion of financing priorities by the legislative authorities, civil society and mass media are still in an early stage of development.

Source: Public Finance Management Strategy of the Republic of Tajikistan for the period 2009 - 2018

⁷² Preparedness for knowledge-based economy. Tajikistan: Country Readiness Assessment Report. United Nations Economic Commission for Europe. New York and Geneva, 2003.

⁷³ Report on the Partnership Program of the World Bank Group and the Republic of Tajikistan, 2013.

⁷⁴ The first investment bank in Tajikistan.

In general, Tajikistan's financial system remains vulnerable to future shocks. A World Bank study that examined the banking sector's stress resistance showed that further efforts are needed to strengthen capitalization, improve banking system management, improve risk management and reporting practices, as well as find ways to avoid dependence on the NBT with regard to liquidity support⁷⁵.

The Tajik government has been implementing an integrated reform program within a framework where special attention is focused on public finance management (PFM). The main legal acts governing PFM issues are: the Law On Public Finance of the Republic of Tajikistan⁷⁶ and the Tajik Republic's Public Finance Management Strategy for 2009 - 2018⁷⁷.

In order to improve the PFM system, the Government fully integrated the Mid-Term Public Expenditure Program into the annual budget cycle. Starting 2011, after the end of the pilot phase in the social sphere, additional sectors of the economy were integrated into the Mid-Term Public Expenditure Program. Another step forward was the 2010 implementation of the administrative budget classification at national level and in 2012 its integration into local budgets. The Tajik Government adopted the 2011-2016 Program for the Modernization of the Treasury and the Reform of Public Sector Accounting Strategy for 2011-2018. For the 2014 budgetary year, the Ministry of Finance is planning to introduce a unified card of accounts, elaborate a decentralized internal audit service, and introduce the system of per capita financing in healthcare, which is already being implemented in the education sector. The planned reforms also provide for an improved potential of public debt management, modernization of the customs and tax administration systems, implementation of international financial accounting standards at state-managed enterprises, and a modernized public procurement system. However, considerable efforts are still required in all previously mentioned areas of activity.

An integral part of a country's financial system is its stock market. Currently, Tajikistan's stock market is non-existent. The main reason for this is an inability of economic entities and financial mediators to accept market economy mechanisms. The stock market cannot operate without such key elements as a stock exchange, brokers and dealers, investment and finance companies, insurance funds, specialized professional registrars, etc. The problem of building an efficient market infrastructure, which would be able to satisfy the needs of both domestic and foreign investors, remains unresolved. An efficient system of stock market regulation that relies on international best practices has also not yet been put in place.

The primary stock market is just starting to be built. Necessary prerequisites for its further development are gradually beginning to emerge: the number of joint-stock companies is growing, and professional stock market traders are coming into existence. Stock market regulations and measures to protect the rights and the interests of investors have been adopted. In general, basic though incomplete conditions for the development of a stock market are being created.

The private sector does not see the stock market as a source of capital investment. Furthermore, the stock market has not yet become a meaningful instrument for capital development or a source of investment resources for enterprises, and consequently cannot achieve the wide spectrum of functions that are characteristic of mature stock markets.

Finally, a serious deterrent hampering the development of Tajikistan's stock market is an insufficiently favourable investment climate. This limits the inflow of long-term foreign investors and a lack of such investors remains a critically important issue to address.

For more than ten years, the Tajik economy has to a great extent depended on remittances. According to official data, individuals in 2013 contributed about \$4.2 billion to the country's economy, which represents 49.6 percent of the country's GDP⁷⁸.

⁷⁵ Report on the Partnership Program of the World Bank Group and the Republic of Tajikistan, 2013.

⁷⁶ of 2 December 2002 #77 with the latest amendments introduced in June 2008.

⁷⁷ Adopted by the Decree of the President of the Republic of Tajikistan of 20 March 2009 #639.

⁷⁸ Data 2013 - Agency on Statistics under the President of the RT.

As a consequence, Tajikistan ranks high on the list of countries in terms of its share of remittances relative to GDP. Recent research⁷⁹ shows that remittances have a considerable impact on households' levels of consumption. On average, families in urban areas can cover ten percent of their expenses with remittances while families residing in rural areas can cover fifteen percent of their annual expenditures with remittances⁸⁰. This state of affairs indicates that the well-being of households highly depends on remittances. In many cases, the share of annual consumption due to cash remittances exceeds thirty-five percent of a household's income. The poorest rural and urban households cover on average eighty percent and fifty percent respectively of their annual expenditures with remittances⁸¹. The incomes of families receiving money from abroad generally exceed the incomes of an average Tajik family. In addition, children from families with migrants working abroad benefit from better levels of education⁸². Family members can also afford better medical care and many other services such as home repairs or consumption of more goods⁸³.

Both the Government and donor organizations assign the highest priority to the impact of migration and remittances on the population's well-being. Research is regularly conducted on this topic as part of joint projects. A large-scale 2010 study⁸⁴ found that most households (68 percent) receive remittances only from one person, 26 percent receive money from two people while six percent receive remittances from three or more people. Remittances from countries other than Russia are insignificant. Most households (94 percent) receive money via banks, post offices and money transfer agencies, while five percent directly brought their salaries home or sent funds through individuals. Meanwhile, one percent sent money through delivery agents (mediators), private companies or travel agencies.

Table 4.4.
Utilization of remittances in Tajikistan

Use	%
Consumption (food, clothes, etc.)	94
Special events (weddings, funerals etc.)	13
Durable goods (car, television, etc.)	7
Purchase of a house, apartment or land for a house	3
Investments in agriculture	1
Investments in business	0
Education/training	11
Repayment of debts	7
Savings	2
Other	2

Source: The impact of migration and remittances on the well-being of Tajik households, August 2010. Statistical Agency under the President of the Republic of Tajikistan (www.stat.tj/img/ru/bednoctruss.doc)

This being said, questions of the interrelation of migration, remittances and human development are not quite understood in Tajikistan.⁸⁵ This is also an issue for other CIS countries. For example, considerable remittances in relation to GDP - about fifty percent - are observed in Tajikistan, and over thirty percent are observed in Kyrgyzstan. With that, steady growth is observed in Kyrgyzstan while Tajikistan typically experiences variations. In reality, labour migration is a form of integration of Central Asian countries into the Russian Federation's labour market and that of Kazakhstan.

It is also apparent that remittances directly influence efforts to reduce poverty in Tajikistan. While official data does not show poverty dynamics adjusted for remittances, the growing amount of remittances is perceived as one of the country's major factors of poverty reduction.

⁷⁹ Danzer, A.M., O. Ivaschenko. Migration Patterns in a Remittances Dependent Economy: Evidence from Tajikistan during the Global Financial Crisis, *Migration Letters*, Vol. 7, No. 2, 2010, 190–202.

⁸⁰ Investigation of households in Tajikistan: Migration, remittances and labour market. Alexander M. Dancer, Barbara Dic, Kseniya Gackova. Institute for East and Southeast European Studies, Regensburg, Germany, 2013 r.

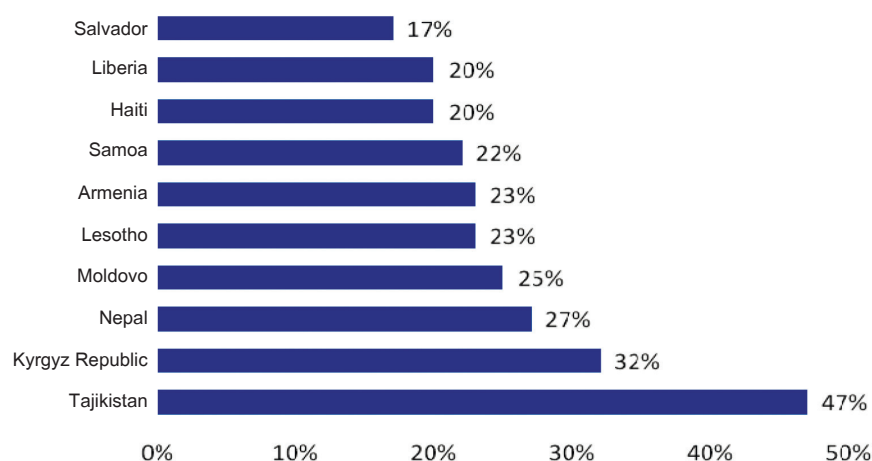
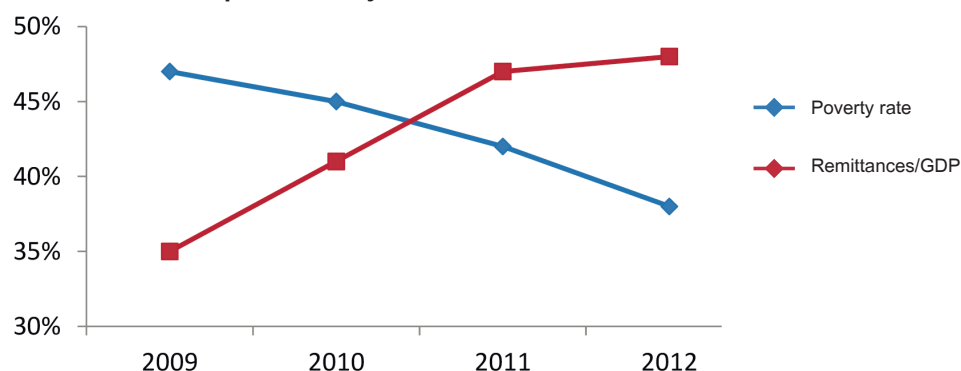
⁸¹ The same place.

⁸² Nakamuro, M.). School attendance and migrant remittances in transition economies: the case of Albania and Tajikistan. *International Development Planning Review*, Vol. 32, No. 3/4, 333–361. 2010.

⁸³ Tajikistan: From Recovery to a Sustainable Growth. Tajikistan Economic Update No.2. October 2012. The World Bank.

⁸⁴ The impact of migration and remittances on the well-being of households in Tajikistan, August 2010. Statistical Agency under the President of the Republic of Tajikistan.

⁸⁵ Ben Slay - Trade, migration, and human development in Central Asia, Dushanbe, 23 April 2014.

Diagram 4.5. Remittances to GDP ratio**Diagram 4.6. Dynamics of the remittances to poverty reduction ratio in the Republic of Tajikistan in 2009-2011**

4.5. TRADE AND HUMAN DEVELOPMENT⁸⁶

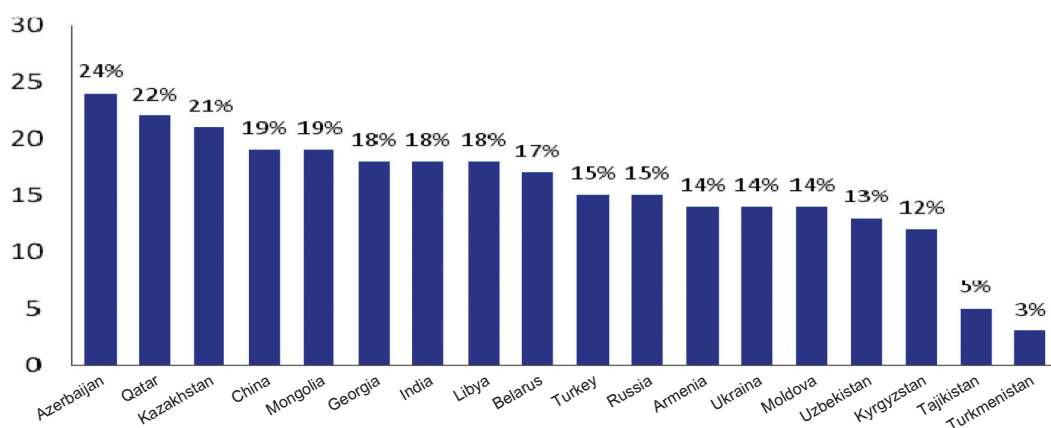
Economic integration is becoming an issue of primary importance in Central Asia. This is apparent in:

- WTO
- Eurasian integration
- Migration, remittances

At the same time human development perspectives with a glance of trade links expansion are not always reflected in such fundamental principles of human development as focus on poor and vulnerable population groups, education; healthcare, and environmental impact.

Trade facilitates the accumulation of economic capital by countries through foreign investments and purchase of state-of-the-art technologies. However, there is no actual accounting for the share of reinvested trade returns into human capital assets (although it apparently takes place), including education and healthcare. It would be necessary to start researching the influence of trade on the sustainability of ecosystems in the context of processing resources and the management of non-renewable resources.

⁸⁶ Prepared based on: Ben Slay - Trade, migration, and human development in Central Asia, Dushanbe, 23 April 2014

Diagram 4.7. Export volume increases lag behind in Central Asia (except Kazakhstan)**Table 4.5.
Ranking of landlocked CIS countries
in international trade**

Landlocked countries	Position in the World Bank's rating "Trading across borders" (Doing Business)
Armenia	116
Moldova	149
Belarus	150
Kyrgyzstan	184
Kazakhstan	186
Tajikistan	188
Uzbekistan	189

The principal reasons for the slow increase of export volumes are as follows:

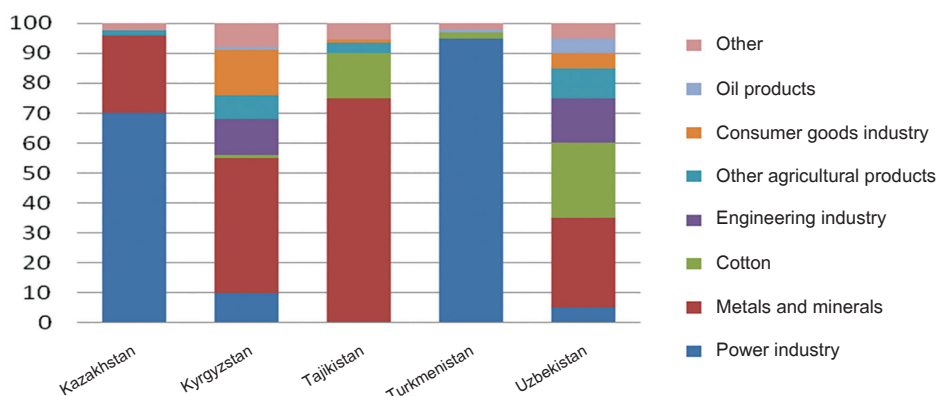
- high trading costs;
- major exporters can cover high trading costs while minor suppliers cannot;
- export pattern is capital and resource-intensive.

Such trading patterns have clear socio-economic consequences, namely:

- Restricts production and employment for labour-intensive industries:
 - Consumer goods industry
 - Wholesale and retail trade
 - Tourism
- Furthermore, these are industries that employ a high percentage of women.

This being said, trade has not developed actively between the region's countries and represents only a small proportion of overall foreign trade. Although the trade policies of the region do not seriously limit the export and import of goods, import duties are not high based on international standards.

For Tajikistan, which is landlocked and far from international waterways, the costs of transporting export and import cargo are an important factor in the country's ability to be competitive and to exploit potential opportunities. Within this context, land transport routes are vital for business communications, and this concerns not only

Диаграмма 4.8. Сохтори содироти кишварҳои Осиёи Марказӣ

exploiting transit opportunities but also gaining and improving access to markets, bringing together large markets, and gaining access to more dynamic southern markets, which include Afghanistan, India, Pakistan, Iran. In addition, there are northern markets that pass through Kyrgyzstan, Kazakhstan into Russia that are also of significant importance.

Aiming to increase competitiveness, particularly through the reduction of transportation costs, can become a powerful tool to enhance regional cooperation and to promote trade and transit both in the border areas and across the country.

It should be noted that the state of the country's infrastructure is a serious barrier to the development of foreign trade. The World Bank's 2014 Logistics Performance Index assesses the state of infrastructure. According to this Index, Tajikistan's trade logistics performance is ranked 114 among 160 countries. As a result, one can conclude that major barriers to trade include the poor quality of the trade and transport infrastructure, as well as an insufficiently developed logistics network.

The enhancement of regional trade cooperation should be perceived as an important step towards achieving the goals of exploiting opportunities and reducing transaction costs.

Tajikistan accession to the World Trade Organization (WTO) in March 2013 called for an acceleration of reforms in all economic spheres. This is especially true for transportation, which is one of Tajikistan's most important sectors due to linkages and access to other markets that are fundamental for economic development.

At present, the cost of import per one container is approximately \$10,250 while the average cost for container transport for Europe and Central Asia goods only amounts to \$2,339.

Official payments for the export of one container are also quite high, equaling \$8,050, while the estimated average for Europe and Central Asia is \$2,109. This elevated cost is only partially due to the lack of direct access to waterways as these figures are high even for a landlocked country.

The main reasons for the high costs of goods transportation are related to complicated procedures for clearing cargo through customs, the wear-and-tear of the transport infrastructure (both for road and rail networks) and the country's remoteness from the region's main transport corridors. In order to improve transport services and make them less costly, an efficient transport infrastructure is a must.

BOX 4.5. CENTRAL ASIA IN INTERNATIONAL TRADE

According to World Bank estimates published in Doing Business 2014, the country's environment for international trade is unfavourable due to length of time required to process documents and to complete export-import transactions, as well as to high shipping costs.

Table 4.6. Ranking of Central Asian countries in international trade according to Doing Business 2014 assesment

	Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan
Trading across borders	186	182	188	189
- documents for export (number)	10	9	12	12
- time for export (days)	81	63	71	79
- cost of export (\$ per one container)	4885	4360	8050	4785
- documents for import (number)	12	11	12	14
- time for import (days)	69	75	72	95
- cost of import (\$ per one container)	4865	5150	10250	5235

Economic growth causes increased demand for trade and transportation, including in transit transport. At the same time the need for transit is a peculiar barrier, since crossing the territories of neighboring countries requires additional costs, and some dependence on neighboring countries. In this context, sustainable cooperation between the countries of the region is of utmost importance.

On 1 April 201, the National Master Plan for the development of the Transport Sector until 2025 was adopted. This document seeks to integrate the transport sector into the National Development Strategy until 2015. To provide a solid basis for the future long-term development of the transport sector, this plan takes into account two Central Asian regional strategies for transport development:

- the transport corridors of the Central Asia Regional Economic Cooperation (CAREC) Program described in the CAREC Transport and Trade Facilitation Strategy 2010 - 2018 (see <http://www.carecprogram.org/ru/index.php?page=transport>);
- the projects of the Economic and Social Commission for Asia and the Pacific (ESCAP): Trans-Asian Railway and the Asian road network.

Tajikistan is committed to enhancing mutually beneficial cooperation with all countries. Since 1998, Tajikistan has been actively involved in the CAREC Program, which has as a primary objective the creation of a global future for Eurasia by naturally linking people and markets from China to Azerbaijan through the Caucasus and farther afield to Europe. In addition, CAREC seeks to link national markets between Kazakhstan and the sea ports of Pakistan, and beyond. Considering its long-standing and active participation in the program and the country's strategic location at the crossroads of four CAREC transport corridors, Tajikistan plays a key role in supporting regional trading goals. Assistance from the CAREC program serves to improve the population's prosperity through enhanced access to trade and transportation services. The goal is to provide opportunities for the free and low-cost movement of people and goods in and through Tajikistan as well as beyond. Fulfilling this goal would broaden trade and improve access to core services and employment. CAREC has six transport corridors connecting markets within the region and beyond and four of these corridors pass through Tajikistan.

These corridors contributed to the increase of exports from Tajikistan: \$597 million in 1998, when the country joined the CAREC Program, up to \$1.36 billion in 2012. Over the same period, the import of goods to Tajikistan increased five-fold and reached \$3.78 billion.⁸⁷

⁸⁷ CAREC Program in Tajikistan: Creating the Global Future (2013)

CHAPTER 5

Access to social services in Tajikistan

5.1. HEALTHCARE: INSTITUTIONAL FRAMEWORK AND ACCESS TO THE SERVICES OF THE SYSTEM

The main goal of human development is the creation of an environment to enable material well-being and enable individuals to enjoy a healthy and creative life for as long as possible.

Life expectancy is a key HDI indicator. There exists a direct positive relationship between health and life expectancy. Good health is reflected in high average life expectancy rates. Tajikistan's life expectancy tends to increase, although slowly. Over a period of five years, life expectancy at birth increased by 1.4 years and reached 67.8 years in 2012⁸⁸.

Promoting good health and ensuring access to services are essential for improving life expectancy rates.

BOX 5.1. THE FUNDAMENTAL TASKS OF THE HEALTH CARE SYSTEM ARE AS FOLLOWS:

- secure the right to health protection;
- ensure that citizens have access to decent health care of high quality and in a timely fashion.

Health care includes issues of prevention, health promotion, treatment, rehabilitation and provision of palliative care. These services must be sufficient to satisfy health protection needs in terms of both quantity and quality.

But health becomes a human capital indicator only in certain circumstances: when it is, for example, combined with an individual's educational background.

Demographic factors affect the state of health and morbidity patterns in the country, in particular, a relatively high birth rate (27.5 per 1,000 population) and a high proportion of children under fourteen years (about thirty-five percent), and the predominance of rural population (seventy four percent).

Maternity mortality rates are still high in the republic - about 86 per 100,000 of live births⁸⁹, and a very slight decrease has been observed - after five years the level fell by a mere 11 percent. The solution to this problem depends to a great extent on health promotion activities oriented at women of fertile age along with the prevention of unwanted pregnancies, extending birth intervals and reducing the number of abortions.

BOX 5.2. AN EXAMPLE OF INCLUDING THE QUESTION OF ACCESS TO CONTRACEPTION IN ONE SURVEY

Tajikistan Demographic and Health Survey 2012 (DHS) demonstrated that although the majority of married women expressed their wish for birth control in the future, only about one third of married women use contraceptives. This confirms - maybe indirectly - the problem of limited access to health care services (women's health clinics, health centres, especially in rural areas), and various methods of contraception.

Implementing comprehensive programs to improve the health of women of reproductive age, the presence of specialized prevention and treatment centres at hospitals and outpatient clinics, improved access to various modern contraceptives, and advocating for longer periods between births may contribute to improved maternal health.

⁸⁸ Global reports - Human Development Report 2013, p. 146 and Human Development Report (2009), p. 173

⁸⁹ The findings of the national survey of infant, child and maternity mortality rates 2010

BOX 5.3.**THE ISSUES OF MATERNITY AND CHILD WELFARE ARE INCLUDED IN THE REPUBLIC'S MAIN STRATEGIES**

- Tajikistan is one of 190 countries in the world where the Convention on the Rights of Children was ratified;
- The issues of maternity and child welfare are included as priority issues in the following strategy documents: the National Development Strategy of the Republic of Tajikistan for the period until 2015, Living Standards Improvement Strategy of Tajikistan for 2013-2015 and National Health Care Strategy of the Republic of Tajikistan for 2010 - 2020.

While the infant mortality rate is one of the most important indicators of the quality of the health care system, it also determines priorities and the distribution of funds for social goals. One of the most important successes of the country regarding demographic issues is decreased infant mortality.

The level of infant mortality in the republic fell from 89 in 2001 to 34 per 1,000 live births in 2013.

Further progress in reducing infant mortality first and foremost depends on the quality of health care during childbirth and the first days of a newborn's life, as well as qualification of medical personnel, and the availability of necessary equipment at maternity clinics.

The birth of a healthy child means that a person can live a healthy life; that is why maternal health services and postnatal care play an important role in this process. The first five years remain the most vulnerable period of a child's life. Children of this age are more susceptible to various communicable and non-communicable diseases. The child mortality rate (under fives) in the republic remains high, although it has been decreasing in general from 126 per 1,000 in 2001 to 43 per 1,000 in 2013.

An important factor to ensure children's health and reducing child mortality is timely immunization against communicable diseases.

Tajikistan is increasingly involved in fighting some of the most threatening diseases such as tuberculosis and HIV/AIDS.

A stabilization and decrease of the prevalence of active tuberculosis has been observed in the republic since 2009. In 2013, the tuberculosis incidence rate was 65.7 cases per 100,000 population, while in 2011 this rate was 78 cases. Children account for 7.3 percent of all tuberculosis cases.

Diagram 5.1. Dynamics of infant mortality reduction (per 1,000 live births)

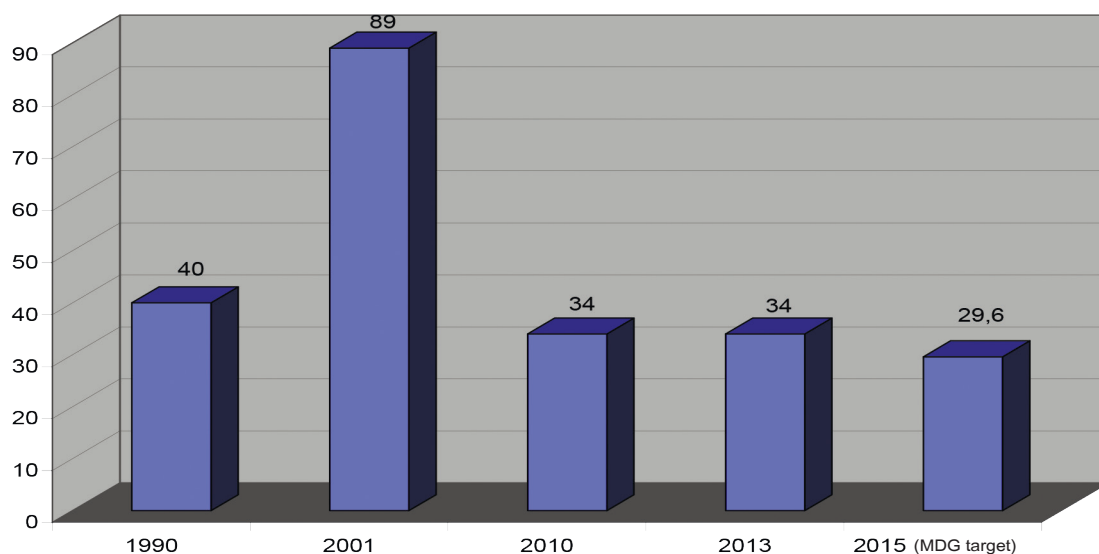
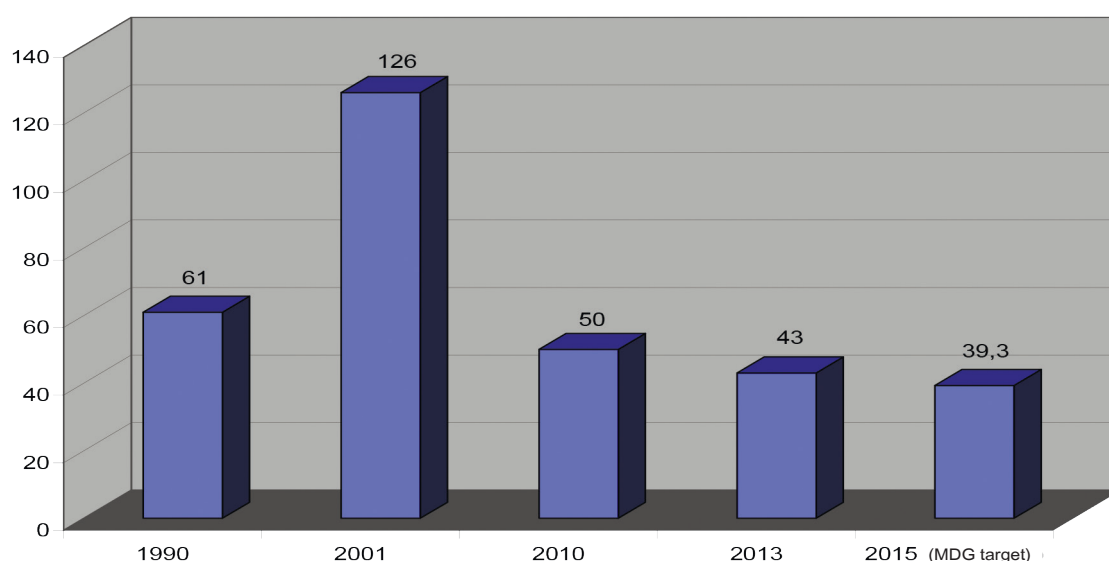


Diagram 5.2. Dynamics of childhood mortality (under five) reduction (per 1,000 live births)**BOX 5.4.****SOME EXAMPLES OF IMPROVED HEALTHCARE IN TAJIKISTAN**

The data about access to healthcare and sanitation is limited, but there is information about some key interventions. For example, Tajikistan's 2012 Demographic and Health Survey provided information about the share of children who have completed a full course of vaccinations and the percentage of deliveries attended by trained medical personnel.

- **Maternity care:**

- Seventy-nine percent of women receive antenatal care by trained healthcare providers. Within this context, differences between women/mothers from different educational backgrounds are quite high. The difference between the highest education rate (92 percent for women with higher education) and the lowest (69.4 percent for women with no education) is 22.6 percent;
- the percentage of births attended by trained medical personnel is 87.4 percent and the share of children born in a health facilities stands at 76.5 percent.
- For women aged 20 and younger approximately 80 percent of births, and for women aged 35 and older just 61 percent of births, take place in health facilities.
- Similarly, if in urban areas 87 percent of births take place in a health facilities, the same is true only for 74 percent of births in rural areas.

- **Immunization of children** – All essential vaccines recommended by the WHO were given to 88 percent of children aged 18-29 months. The children residing in Sughd and Khatlon regions are more likely than children from other regions to receive a complete course of vaccinations (93 and 91 percent respectively). The mothers with general education are more likely to ensure a complete course of vaccination (93 percent) for their children, when compared to the mothers with other levels of education.

Source: Tajikistan's 2012 Demographic and Health Survey, preliminary report

BOX 5.5.**INSTITUTIONAL PRECONDITIONS FOR PROVIDING ACCESS TO TB TREATMENT:**

- a network of TB centres has been established and is growing. In 2013, there were thirty such centres;
- the 2010-2015 National Program to Protect Individuals from Tuberculosis is in the third phase of implementation. Its primary objectives are as follows: further reduction of TB morbidity and mortality, stabilization of the epidemic and full control of the infection throughout the country;
- studies are conducted and periodic reviews of TB programs are prepared. In 2013, WHO Tajikistan conducted another national assessment of TB prevention and monitoring measures with the subsequent development of realistic recommendations to improve response in accordance with the WHO's Stop TB strategy.
- due to the implementation of the DOTS strategy, TB facilities are now better equipped with medical equipment: microscopes, X-ray devices and office equipment.

However, the spread of TB remains an urgent issue as:

- the number of people infected with multidrug resistant tuberculosis is relatively high;
- incidence of tuberculosis remains high among working-age population (ages 25-44);
- there are shortcomings in the organization of directly observed treatment, especially during the outpatient treatment stage;
- there is still a shortage of anti-tuberculosis drugs.

Solutions to these problems require implementing the following actions (institutional aspects of ensuring access):

- a more effective coordination and continuity of activities at all levels and clearly defined cooperation within TB service including the general healthcare network, primary health care and prevention centres;
- the implementation of Human Resource policy aiming to attract, retain and training of personnel;
- comprehensive treatment of TB patients, including the development of a system of adherence to therapy;
- organization of TB care and prevention activities in the regions.

HIV/AIDS is a serious problem both globally and in Tajikistan. Due to the strengthened efforts of the National HIV/AIDS Centre, an increasing number of new HIV cases are now being diagnosed and registered. This is, first of all, due to the increase in the number of AIDS prevention and control centres with 38 such centres now operating in the republic, access to voluntary counselling and testing, and the creation of new laboratories that contributed to the increased number of people tested for HIV. If in 2009, 431 people were registered as HIV positive, in 2013 there were 763 such individuals.

BOX 5.6.**HIV/AIDS AWARENESS**

In general, HIV/AIDS awareness is improving in the country. However, although women's awareness on HIV increased from 42 percent (MICS 2005) to 62 percent (DHS 2012), it is still of concern that almost four out of ten women in Tajikistan have not yet heard about HIV/AIDS. There is a direct positive connection between women's educational background and their awareness of HIV prevention methods. This being said, urban women are more likely to be aware of HIV prevention than women living in rural areas.

The major HIV/AIDS issues that Tajikistan is facing are:

- increase of vulnerable population: injection drug users, persons infected with STIs, sex workers;
- increase of TB incidence among HIV positive people;
- high costs of HIV/AIDS therapy;
- people are still insufficiently informed of HIV/AIDS and its consequences.

Health system financing policy. Governments invest funds into improving public health both directly through investments into the health care sector and indirectly through investments into, say, poverty reduction or improving women's educational levels.

The share of general spending channelled into the health sector, while embracing only one component of direct investment, demonstrates that the government perceives healthcare as one of its priorities.

BOX 5.7. PUBLIC HEALTH SPENDING WORLDWIDE

In 2011, global health spending amounted to approximately 9.1 percent of gross domestic product.

Table 5.1. Global health spending

	Total health spending as a percentage of GDP		Total health spending as a percentage of general government spending	
	2000	2011	2000	2011
Range of values in different countries				
Minimum	0,8	1,7	4,2	15,9
Maximum	22,5	17,7	100,0	99,9
Groups of countries according to income level				
Low income	4,0	5,2	40,5	38,9
Lower middle income	4,1	4,4	33,7	36,6
Upper middle income	5,4	5,8	47,2	56,2
High income	9,8	11,9	59,3	61,3
Worldwide	8,2	9,1	56,3	58,8

According to estimates, high spending on healthcare does not always guarantee a high quality and access to health services.

The public health care system, quality of health services and, in the long run, public health depend both on the amount of funding and on high levels of functional efficiency and organization in this sector.

World Healthcare Statistics 2014

During the 2008-2013 period Tajik public funding of the health care system increased 3.7-fold. In comparable prices (as of 2013), public health spending increased from TJS 380.8 mln. to TJS 836.5 mln, i.e. more than twofold. Overall, the mean annual growth rate was 17 percent, which is more than the mean annual growth of total government spending.

At present, public health spending represents more than two percent of GDP, which is a level of spending similar to countries with a comparable per capita GDP. However, this is still not enough to ensure free public health care. The Government, as was the case in the former Soviet Union, guarantees that the provision of health care in state-run health care facilities is free of charge for individuals, but the range of services, let alone their quality, is not defined.

In general, Tajikistan's state budget is socially-oriented. The share of the healthcare sector in relation to total government spending represents about seven percent.

The redistribution of health spending between the different levels of the budget system continues, which is due to the processes of the decentralization of financial flows. Currently, most public healthcare spending (over 82 percent) is covered from local budgets.

The share of paid health services in the total amount of paid services provided to the population increased considerably from 0.4 percent in 2003 to 3.7 percent in 2012. However, this growth cannot be explained solely due to the growing demand for health services by high-income individuals. It is rather the issue of insufficient government funding of public health. Citizens are compelled to paying for health services and buying drugs for use at home and in healthcare settings. According to the findings of opinion surveys, such practices are now widespread.

BOX 5.8.**HEALTH SECTOR FINANCING REFORMS:**

- Transition to full per capita funding of primary health care: New funding mechanisms have been implemented in one region (Sughd Region) since July 1, 2013. The Ministry of Health and Social Protection plans to expand full per capita funding to other regions as well.
- Implementation of new mechanisms for the funding of health care facilities: In April-June 2013, a study was conducted to determine whether compulsory health insurance (CHI) can be implemented. It's feasibility depends on determining and fulfilling the conditions for the implementation of CHI. CHI can be implemented in the Republic of Tajikistan only after preliminary conditions for the establishment of CHI are met. These conditions are classified into different categories: (i) institutional framework, roles and relationships, (ii) collection of income, (iii) resource pool, (iv) procurement, and (v) implementation of strategies and consistency. Based on the findings of the survey and the comments from other ministries and governmental agencies, the Government of Tajikistan has for the time being postponed CHI implementation until 2017.
- The improvement of the program of government guarantees: The Ministry of Health and Social Protection intends to implement a package of basic guarantees (PBG) in six districts in 2014. A study of the possibility of expanding PBG showed that out of six districts, four districts will experience a fiscal deficit for PBG funding from 22 to 44 percent. The study did not identify any deficit at the level of primary health care.

From the meeting of the representatives
of the Government of the Republic of Tajikistan
and the Coordination Council for Development,
18 February 2014

This being said, the government's official statistical data does not allow for the drawing of any valid conclusions. Official figures do not account for informal payments made by patients to health care personnel. According to some estimates, the share of informal payments in relation to the total spending in the health sector is sixty-eight percent.

The country must not only increase health spending but also develop a system of financing that will enable a transformation of allocated funds into an effective system of quality healthcare services.

The main challenges that complicate the implementation of patients' rights are as follows:

- the inter-relation between the protection of patients' rights and the rights of health care providers. Insufficient budget funding of healthcare institutions creates conditions for the emergence and growth of a whole range of problems related to the quality and timeliness of service provision;
- lack of detail in the legislative and methodological definitions of the integration of free and paid healthcare services at state-run healthcare institutions and consequently the difficulty in protecting the rights of patients;
- financial limitations regarding the degree of affordability of quality fee-based health services for low and even middle income individuals;
- virtually no lack of adopted standards for the provision of different types of health services.

BOX 5.9.**NECESSARY ACTIONS REGARDING HEALTH SERVICES TOWARDS SOCIAL SOLIDARITY**

In the current context, a health care regime should be selected that will maintain the public healthcare as a system of affordable and quality medical care while retaining the fundamental principle of social solidarity.

Activities to achieve this goal must include:

- increasing social efficiency of reforms accompanied by improved financial capacity of the state and its citizens;
- adoption of a package of healthcare standards;
- elaboration of fundamentally new approaches for the development of infrastructure and human resources for the healthcare sector;
- to identify options to engage the country's business community to provide health care within the framework of a public-private partnership.

5.2. EDUCATION: INSTITUTIONAL FRAMEWORK AND ACCESS TO SERVICES

Education is one of the fundamental components of the human development concept that is crucial to solving a whole range of social, economic, political and humanitarian challenges.

In general, Tajikistan's educational level is typical for countries with medium human development. The education index in the republic is higher than the gross national income index.

In general, reforms in the country aim to increase average years of schooling, which in 2013 totalled approximately 9.9 years. This figure is, for example, greater than in Moldova (9.8 years), Kyrgyzstan (9.3 years), Mongolia (8.3 years), China (7.5 years) and a number of other countries with medium human development.

According to the 2010 census, the share of individuals with high and tertiary education (both complete and incomplete), as well as vocational training represented 911 persons per 1,000 population for the age group of 15 and older, which is almost nine percent more than according to the last Soviet census of 1989, but is 1.2 percent less than according to the 2000 census.

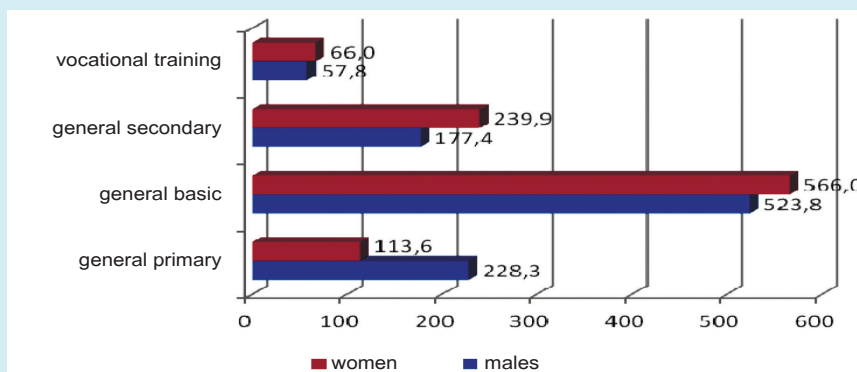
During the 2000-2010 period, growth has been registered in terms of the number of individuals with higher education per 1,000 population, while the number of individuals with vocational training has overall decreased.

The results of the 2010 census showed that more than half (i.e 597 persons per 1,000 population) of the gainfully employed population graduated from senior secondary education while 157 individuals out of 1,000 have basic general education and only 205 out of 1,000 have vocational training.

BOX 5.10. GENDER DISPARITIES IN EDUCATION LEVELS

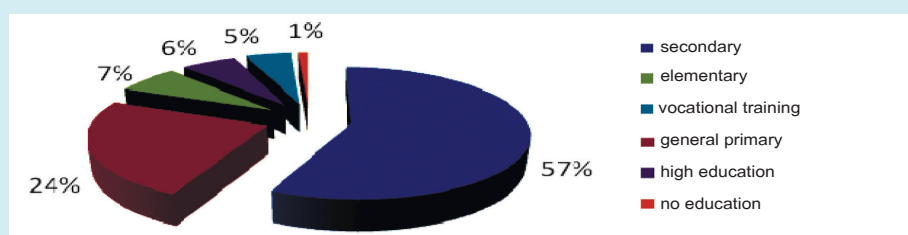
According to the 2010 national census, only 114 out of 1,000 working age women have vocational training.

Diagram 5.3. Working-age population by education levels (2010 census data, per 1,000 people)



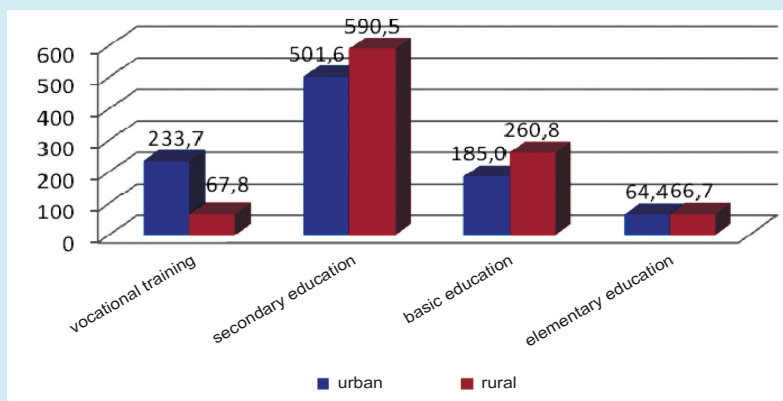
Most women of working age (57 percent) have general secondary education and only six percent have high education. In rural areas this figure is even lower.

Diagram 5.4. Working-age women by education level (2010 census data, Percentage)



Relatively higher education levels are typical for women living in towns and cities: 23.3 percent of urban women of working age have vocational training while for rural women this figure stands at only 6.8 percent. Furthermore, there is a relatively large share of women in rural areas within this age group who only have primary or basic general education at 32.7 percent. For urban women this figure is a bit lower and stands at 24.9 percent.

Diagram 5.5. Working-age population by education levels (2010 census data, per 1,000 people)



In general, the relatively larger share of working age women makes them less competitive on the labour market.

It is known that educational potential significantly improves the competitiveness of workers. Higher educational levels result in higher levels of economic activity and employment, lower risk of unemployment and shorter periods of unemployment, higher salaries and increased access to decent jobs.

Fig 5.1. The vicious circle of inequality in education

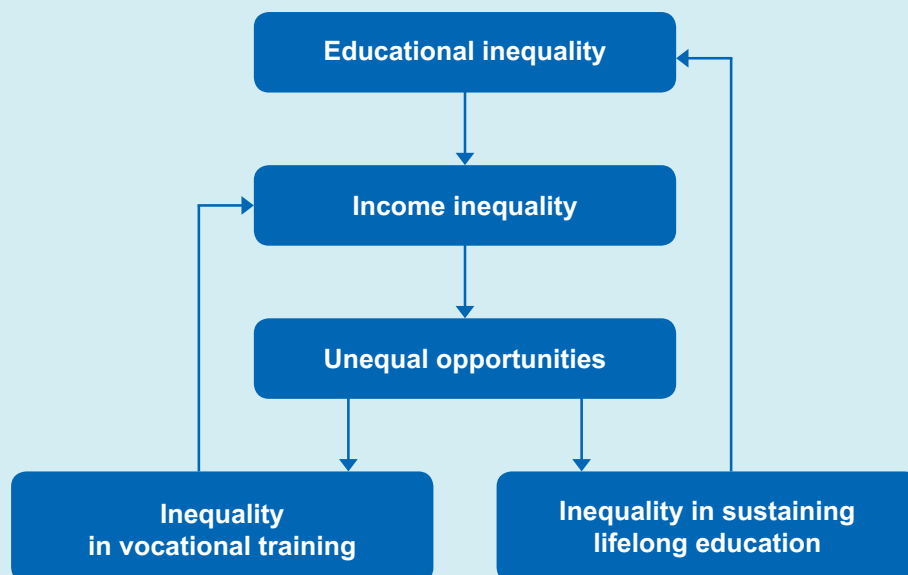


Table 5.2. Pre-school education institutions

	Years					
	2008	2009	2010	2011	2012	2013
Number of pre-schooling facilities	485	487	488	494	508	527
Number of children in pre-schooling facilities (in thousands)	57,5	58,1	62,5	67,9	74,4	80,4
Coverage of children age 3 - 6 with pre-school education (percentage)	8,4	8,4	8,9	9,3	9,6	9,6

Table 5.3. Number of students and teachers in general education at the beginning of the school year

	Years					
	2008	2009	2010	2011	2012	2013
Number of education facilities	3817	3780	3747	3791	3813	3836
Number of students (in thousands)	1691,9	1695	1694,7	1702,9	1713,8	1717,0
Number of teachers (in thousands)	96,1	94,2	93,6	94,2	97,7	100,6

The current phase of national development requires a consistent improvement of living standards and quality of life. This, in turn, requires increased educational levels, in particular vocational training, as well as a considerable improvement in the quality of labour in terms of improved levels of knowledge and skills that determine labour market competitiveness and contribute to increases of labour productivity.

The system of pre-schooling is a unique system. Considering its large scale and the numerous services offered the system, only in recent years, has showed positive dynamics.

The greater part of the network of pre-schools is found in urban settlements (about 85 percent), which, considering the share of the urban population, causes a disproportionate distribution of public resources towards urban areas.

The increase in the number of children of pre-school age and their parents' improved employment opportunities caused stricter requirements with regards to educational services for younger children and the necessity to modify teaching methods and curricula for pre-primary education.

School education. As of 1 January 2014, the number of children of school age (6-17 years) stood at 2,047 thousand, which represents more than twenty-five percent of the country's population. According to estimates, this number will by 2015 increase by another 72.3 thousand.

According to Tajikistan's constitution, basic general education is compulsory. As such, the government ensures free education for all of Tajikistan's citizens. General education is the dominant sector of education.

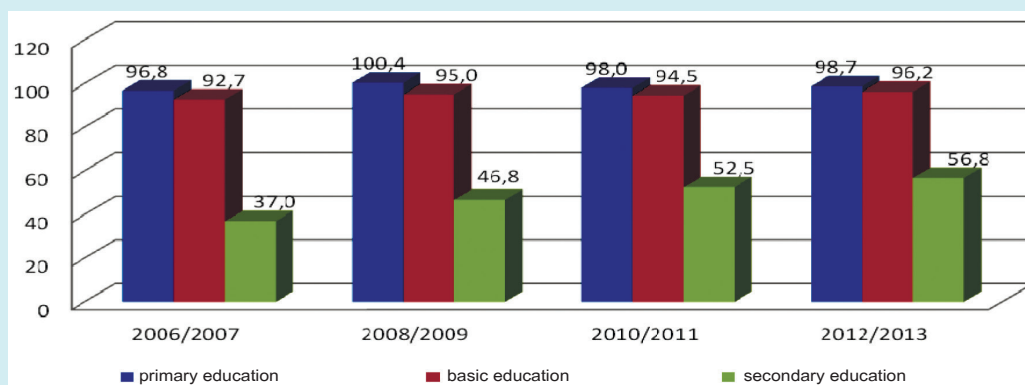
The task of ensuring access to education is manageable as long as the respective measures continue to be consistently implemented. In general, basic education now covers over 98 percent of children and adolescents. However, if the primary education enrolment rate stands virtually at 100 percent, the rate begins to decrease starting with the 9th grade. School participation rates are the lowest in upper grades, which is partly due to some students continuing their education at specialised secondary schools while others transition to the vocational training system.

BOX 5.11. SCHOOL PARTICIPATION RATES FOR GIRLS

One of the MDG tasks is to eliminate gender disparity in primary and secondary education, preferably by 2015 and at all levels by 2015.

Improved participation of girls in basic education (the same as for primary education) is a positive trend. Thus, achievement of the stated goal by 2015 seems likely.

Diagram 5.6. Ratio of girls at all levels of school education (Percentage)



The graduation rate, ie the share of children who successfully complete their education compared to the number of other children of typical age who complete such a course, is also decreasing with grades: if in primary school it is close to 100 percent, in basic education it is already at 88.1 percent, and for the full course of secondary education it falls to 51.9 percent.

A comparison of completion rates for basic education and the number of tenth grade students in relation to admissions to primary and secondary vocational establishments shows that at least 9.1 percent of boys and 15.5 percent of girls are lost somewhere during this progression. These rates increase even more if we take into account that vocational establishments admit students both after the completion of their basic course and following graduation from secondary education.

Some of the current activities to improve access to schools include:

- construction and commissioning of new schools and efficient planning of their location;
- assistance in the development of specialised educational establishments (auxiliary schools) where special needs children and adolescents suffering from physical disabilities and mental development issues are provided support and education;
- mother tongue instruction for ethnic minorities.

BOX 5.12.**AN ILLUSTRATION OF THE PROBLEM OF CHILDREN'S PARTICIPATION IN BASIC EDUCATION**

"Not all children can receive basic education. There were 2,630 children of school age who for various reasons were left out of school during the 2012-2013 academic year. Of these children, 1,479 are girls (56.2 percent). The main reason for this situation is the remoteness of schools from some villages.

As a result, a letter from the Minister of Education and Science about the transformation of primary schools into secondary or general education schools was sent to the heads of regions, cities/towns and districts.

In 2012-2013, thirty-eight primary schools were transformed into general education schools, which allowed for increasing rates of school attendance.

Source: Interview with Tajikistan's First Deputy Minister of Education and Science Mr. R. Mirboboev.
Source – Avesto.tj

The quality of education and the availability of trained teaching staff are essential for education reform. New state education standards (SES) have been created and the existing SES and curricula have also been improved.

BOX 5.13. FOLLOWING ARE SOME OF THE CHALLENGES IN THE PROVISION OF EDUCATIONAL SERVICES:

- Teachers' qualifications: Only 71.5 percent of teachers are professionally trained and have a university degree (2013/2014 academic years);
- Shortage of teachers and a continued trend of an ageing teacher workforce with the result that young specialists with tertiary education do not fill existing vacancies. Instead, they choose not to work in education due to low salaries and other issues;
- Quality of teaching: the country's Index of Teaching Quality (ITQ) designed by the European Training Fund stands at 0.77. It should be noted that one can speak of quality teaching only when this index exceeds 1.

BOX 5.14.

ON THE PATH TO INCLUSIVE EDUCATION

For people with disabilities access to education means, first and foremost, the opportunity of maximum access to the same curricula as other citizens and obtaining the necessary support to participate in these education programs. Inclusive education is the practice whereby individuals with disabilities learn in an "ordinary" classroom together with other students. This trend is only beginning to develop in our country.

The roadmap of inclusive education is currently under way in Tajikistan. An initial draft action plan was designed with donors' assistance based on the concept of inclusive education elaborated by the Ministry of Education and Science. GPE4 funds were allocated and one component was fully dedicated to inclusive education, which included the adaptation of infrastructure for increased access for the disabled, the production of various publications, as well as the construction of new buildings to allow greater physical access. In this context, donors supported the baseline assessment. An early childhood educational program was adopted and this program comprises inclusive education and practical training for teachers working with children with disabilities. In June 2013, the Ministry adopted the Regulations on the Implementation of Inclusive Education in Schools.

Text from the representatives
Republic of Tajikistan's meeting and the Coordination
Council for Development, 18 February 2014

Vocational training

Primary and secondary vocational training has recently become one of the education sector's greatest challenges. Despite the slight increase in the number of students who have entered such educational establishments, the country still lacks a considerable number of skilled workers to solve complex issues related to economic innovation and reversing its resource-based economy.

Attendance rates at primary vocational training establishments are lower than at secondary vocational training establishments. During the period from 2008 to 2013, the number of students enrolled in primary vocational training establishments increased by 1.6 percent and for secondary vocational training establishments, this number increased by 40.7 percent.

Social policy reform in the context of education involves addressing the inconsistency between the content of education and the current demands of the labour market. The factors restraining the implementation of social reforms include: the unattractiveness of vocational schools for young people, the regions' low level of socio-economic development, and the lack of a regulatory framework to regulate the business community's participation in reforming the vocational education system.

Higher vocational training. Tertiary education, access to which is ensured following the completion of secondary education or basic vocational training, is an independent stage of lifelong education.

At present, thirty-four higher educational establishments ensure access to tertiary education in Tajikistan. Among the tertiary educational establishments, ten provide training for the

education system, eight for industry in general, eight for the economy, two for medical and physical fitness sciences, and two for agriculture.

Along with domestic universities, Tajikistan has attracted several branches of foreign higher educational establishments, such as Lomonosov Moscow State University, National University of Science and Technology (Moscow Institute of Mines and Steel), and the National Research University (Moscow Power Engineering Institute).

Dushanbe is still the largest centre providing higher education and hosts twenty-three higher education facilities. Prospective students are admitted to higher education following the results of entrance exams that test their general levels of knowledge. The country is experiencing a higher education boom: the number of higher educational establishments has grown rapidly. During the 1991 to 2013 period, more than a 2.5-fold increase was observed while the number of students has grown twofold.

In the context of general growth of the number of students, the entire system of higher education is undergoing significant changes, such as:

- the growth rates of the number of part-time students lags behind the growth rate of full-time students;
- the centre of academic interest has moved towards economic, managerial and legal, services, humanitarian and social science specialties;
- Tajikistan's accession to the Bologna process brought about the transition of higher education to a two-level system: Bachelor's and Master's degree courses.

Higher education is free (state budget) or based on contract. The share of students studying on a contractual basis is about sixty percent.

The quality of higher education is ensured through the introduction of state education standards (SES) for key bachelor's degree courses and master's degree program specialties.

At the same time, the quality of education at higher educational establishments has been extensively criticized, both by students and their parents and the employers of graduates. This is, first and foremost, due to the following reasons:

- the learning process in higher educational establishments is overburdened with compulsory courses;

BOX 5.15.

ACTIVITIES TO ENSURE GENDER BALANCE IN THE EDUCATION SYSTEM

In Tajikistan, activities are presently being implemented to enable girls' education and to create an incentive system for further training:

- Tajikistan's Law on State Guarantees promoting the Equality of Men and Women and Equal Opportunities and their Implementation was adopted in 2005.
- programmatic activities are carried out as part of the 2011-2020 National Strategy for Women's Empowerment in the Republic of Tajikistan;
- special courses on gender issues have been introduced in the curriculum of higher educational establishments;
- the "Presidential quota" has been utilized every year since 1997 to support girls from remote regions to study at higher educational establishments;
- the Ministry of Education in cooperation with UNICEF performed gender assessments of school textbooks and provided recommendations regarding the preparation of gender sensitive learning materials (2008);
- With the support of international organizations, NGOs conducted educational and information workshops, trainings on gender issues to raise awareness and overcome negative gender stereotypes.

- in-class learning still accounts for quite a lot of the academic workload. As a result, there are virtually no approved or evidence-based forms of independent work for students;
- laboratory equipment and technical support activities in higher educational establishments still do not meet current needs;
- practical studies and internships are frequently only a formality;
- the quality of education at higher educational establishments, especially for natural sciences and engineering suffers from inadequate teaching of mathematics, physics, chemistry and biology at schools and secondary vocational training establishments;
- insufficient incentives for teachers cause poor quality of teaching and corruption in tertiary education.

Education financing policy. During the 2008–2013 period, educational spending grew from both public and private sources. During this period, spending on education in terms of share of GDP grew considerably. In comparable prices (2013 prices) public spending on education increased from TJS 1,027 million to 2,111.6 million, i.e. more than twofold. As a result, the mean annual growth rate was 13.6 percent, which is more than the mean annual growth of total government spending, which had a growth rate of 6.7 percent. Overall, government spending on education now totals five percent of GDP.

Significant changes occurred in the allocation of budgetary funds. The share of spending on education in the 2008 republican budget compared to general education expenditures represented 27.4 percent and the respective spending from local budgets amounted to 72.4 percent. In 2013, the share of education expenditures from the republican budget compared to the state's general education budget slightly decreased and fell to 20.2 percent.

Private spending on education is registered in national statistics as the “volume of paid services within the education system”. The dynamics of the volume of paid services offered by the education system shows steady growth. In addition, its growth rates surpass budget spending on education.

Individuals principally pay for higher education and secondary vocational training, pay tutors who prepare prospective students to enter a higher educational establishment, and pay bribes to obtain admission or to obtain passing grades on exams.

5.3. SOCIAL PROTECTION: INSTITUTIONAL FRAMEWORK AND ACCESS TO SERVICES

Article 35 of Tajikistan's Constitution guarantees each citizen the right to work and social protection.

THE YOUNG GENERATION AS A RESOURCE FOR LONG-TERM HUMAN DEVELOPMENT

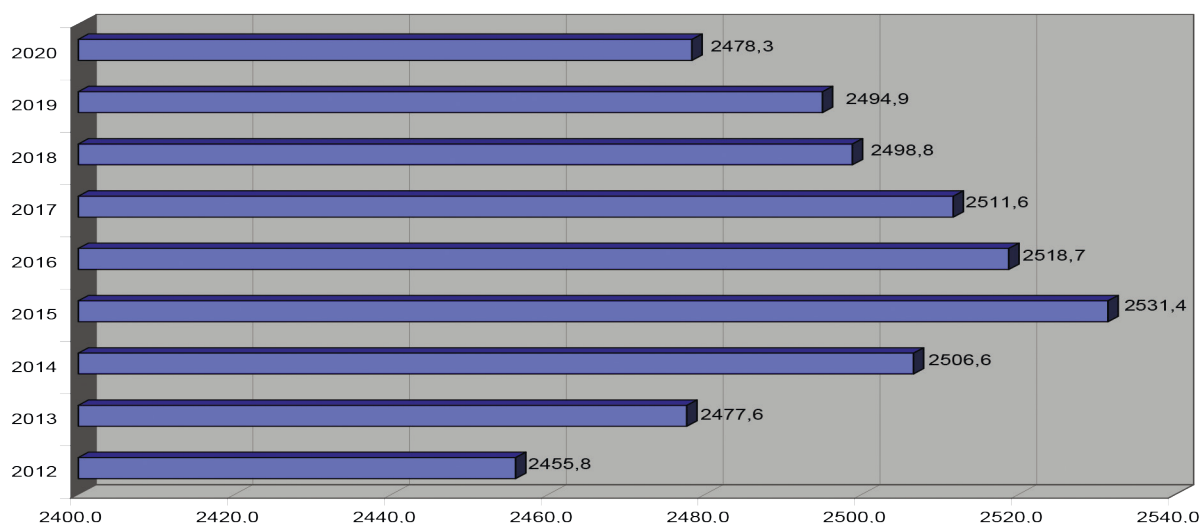
State policies and their effect on the development of the young generation have a huge long-term effect on how human capital is maintained, evolves and is utilized.

In Tajikistan, the importance of the young generation is enormous as the country's average age is 25.2 years with one third of the population (31 percent) aged between 15–29 years.

- Due to achievements in health care, an increasing number of young people complete general education and survive childhood diseases. However, the current context requires literacy and professional skills.
- Low labour market demand and lengthy unemployment can become a serious obstacle to economic development.

In the future, the number of young people will continue to grow, which will increase the significance of these challenges.

Diagram 5.7. Population of the republic aged 15-29 (in thousands)



If one considers that labour is the population's main asset, increasing productivity is the best way to reduce poverty. Secondary education and primary health care, especially for children, are important tools for developing basic skills and improving the population's well-being. In both these areas some progress has been made. For instance, children's participation in basic education increased from 95.3 percent in 2003 to 98 percent in 2012 with the goal of ensuring full participation by 2015. Average life expectancy at birth increased in less than ten years from 70.1 years to 72.8 years. Further progress requires a better trained and more proactive youth.

However, in general the imbalance between the division of educational services and the labour market is a national challenge. Annually, almost eleven thousand people complete basic vocational training, almost over nine thousand complete secondary vocational training, and over twenty-seven thousand students graduate from higher educational establishments. Thus, 47,000 young specialists enter the labour market annually with the following ratio: for every blue-collar worker, there are 0.9 graduates with secondary specialized educational establishments and 2.5 graduates with higher education. But the actual number of job vacancies shows a higher demand and need for blue-collar workers.

Formal training at all levels of vocational training, which includes primary vocational training, leads one to believe that graduates will directly enter the labour market. However, in reality many graduates have to "complete" their training or "retrain", which is evidence of inadequate quality and lack of targeted education.

There are also still not enough jobs with guaranteed employment and decent salaries, especially for young graduates. A high level of unemployment among youth (15-29 years), still exist. According to a 2009 Labour Force Survey (LFS) it stood at 15.4 percent. For middle aged individuals (30 - 49 years), the unemployment rate is 9.3 percent. For individuals of pre-retirement age (50 - 59 years) it represents 8.9 percent. Meanwhile, high unemployment rates are observed in urban areas (27 percent).

A study of the social composition of youth aged 15-29 years has shown that when young people under 18 seek the services of an employment agency, they mostly do not have a job or a profession. However, as there are no vacancies for this

category, the challenge of employment becomes the problem of vocational training.

Furthermore, many young people begin working in the economy's informal sector. The percentage of individuals employed in Tajikistan's informal sector remains high and represents at least thirty percent of the total employed population.

BOX 5.16.

INFORMAL EMPLOYMENT AND THE YOUNG GENERATION

The informal employment sector is characterized by a concentration of violations of citizens' labour rights and social guarantees. It is also in this sector that the bulk of employed individuals have low incomes and no opportunities for professional and human development.

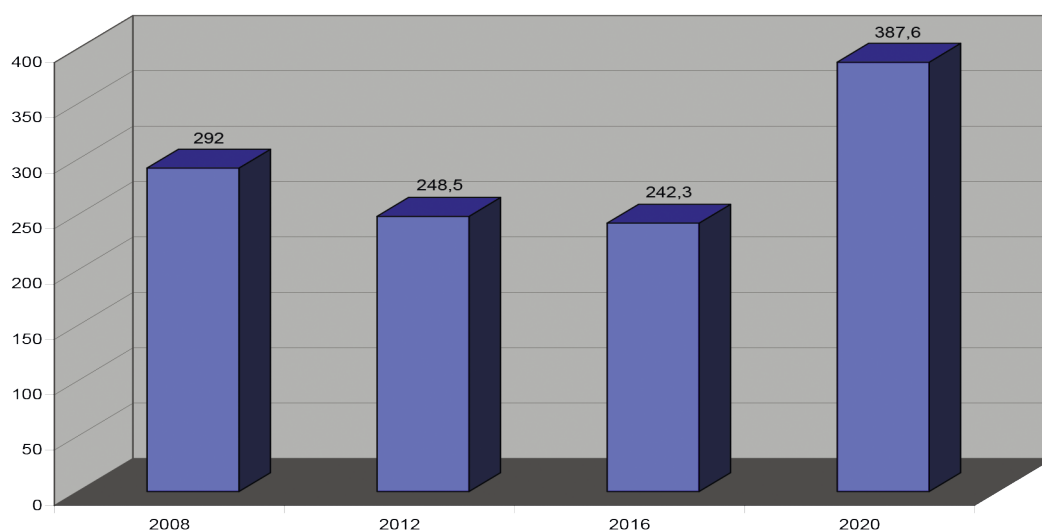
At the same time, this economic sector does not eliminate the problem of youth unemployment. However, it facilitates the acquisition and development of some occupational and professional skills, including communication skills in a rather unfavourable environment. Thus, it can serve as a launching pad for growth and can sometimes help individuals find a job in the economy's formal sector.

If these jobs are the first and not the last step on the career ladder, it is important to legalize this sector and youth should be able to move freely to take advantage of emerging opportunities.

Young people are the largest single group of migrants and represent at least fifty-five percent of the total number of labour migrants. In the coming years, the rise in the number of young people combined with Russia's continued demographic challenges due to an ageing population could cause an additional demand for migration.

In order to mitigate the risks related to migration, it is essential for Tajikistan to increase opportunities for finding employment in the country and to facilitate the return home of young migrants through an improved investment climate.

In broader terms, ensuring macroeconomic stability along with the creation of sustainable jobs in combination with the development of education, health care and social protection can create a solid basis for long-term development, including for future generations.

Diagram 5.8. Individuals over age 65, in thousands

SOCIAL PROTECTION OF THE OLDER GENERATION

In recent years there have been changes in the composition of the Tajik population's age. Population forecasts predict increases in the number of elderly people and this trend has already begun. By 2020, the number of individuals aged 65 years and more may increase by almost thirty three percent, which will significantly increase the financial burden on the state budget through increased pension payments and the provision of healthcare services.

According to UN estimates, a society in which the percentage of the population older than 65 years is seven percent or more is considered ageing.

Tajikistan has not yet crossed this threshold. If, at the beginning of 2008, the percentage of individuals in this age category represented 4.1 percent, by 2014 this share represented a mere 3.2 percent. An analysis of the population's age composition according to estimated forecasts demonstrates that the group of individuals aged 65 and older group will reach 4.2 percent. Furthermore, the ageing process can slightly accelerate, which is due to two trends, namely a slight birth rate decrease and increased longevity which will take place by 2013 in the share of elderly population reaching 4.5 percent. This forecast points to the importance of continuing government policy of childhood and maternity support, as well as establishing a social services system that would guarantee dignity in old age.

BOX 5.17. THE PROBLEM OF AN AGEING POPULATION NEEDS TO BE RECOGNIZED

An increase in the number of elderly people is accompanied by a higher dependence of senior citizens on the economically and socially active population. Unsatisfactory healthcare, a precarious financial situation, and reduced labour market competitiveness in the pre-retirement and retirement age are typical realities that older citizens face in many countries.

This situation calls for facing the challenges associated with an ageing population and integrating these into national policy design, as well as including relevant mechanisms to support older people in all socio-economic programs. As a rule, employment, health care, income and social security strategies must account for the needs of older people. These sector-wide tasks should also become part of larger-scale strategies.

At the beginning of 2013, there were 596,600 people receiving pensions in Tajikistan. Of this number, 59.2 percent received retirement benefits while 17 percent were provided disability benefits. Despite pension reviews and increases in recent years, average pensions do not exceed 33 percent of an average national salary. According to ILO Convention #102, the income substitution percentage for a pensioner must be at least 40-45 percent and no more than 75 percent of the original salary.

In 2012, the ratio of old-age pensioners to the working age population was almost eight percent. In relation to the gainfully employed population, it stood at 16.5 percent. One of the key reasons for relatively low pensions is linked to the problem of the population's effective rate of employment.

A significant number of retirement-age pensioners continue to work mainly because their pensions do not secure a decent standard of living. According to a 2009 sample survey of the country's labour force, it was found that the percentage of retirement aged people stood at 7.7 percent among the gainfully employed population between the ages of 15 to 70 years.

The national pension regime, which is governed by "the Law of the Republic of Tajikistan On Pension Benefits for the Citizens of the Republic of Tajikistan", provides three types of pensions: old-age for men reaching age 63 and women 58 years; disability (must be recognized by the Medical-Labour Expert Commission), and survivor benefits (paid to orphans).

BOX 5.18.

REFORMS OF PENSION BENEFITS

The key goal is to transform the pension system into an efficient instrument of economic policy, which would contribute, on the one hand, to the growth of individuals' incomes and demand, and, on the other hand, to enhanced investment activity.

The transition to a new pension system by 2017 will combine public pension benefits and a financially defined contributions scheme that aims to ensure a better correlation of employee labour contributions with his/her retirement benefits.

Effective mechanisms for investing pension savings into the national economy through development institutes must be created. Establishment of mechanisms for the redistribution of pension accruals into the economy will allow for increases in total capital investments. But for an effective creation of respective institutes, macroeconomic stability must first be in place. This, in turn, will enhance responsibilities related to the transition to a financially defined contribution scheme.

Physical health is also considered an important indicator of quality of life for the elderly and is assessed based on morbidity, disability and mortality rates, as well as life expectancy.

The 2010-2020 National Strategy for the Tajik Population's Public Health provides a shift from hospital treatment to outpatient modalities, better prevention of diseases and the promotion of healthy lifestyles among all segments of the population.

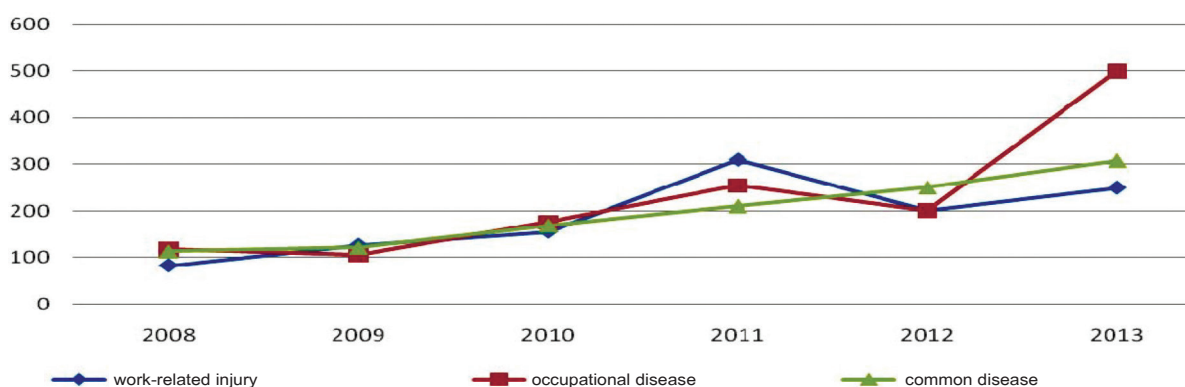
SOCIAL PROTECTION OF PEOPLE WITH DISABILITIES

The integration of general human development issues with a rights-based approach for citizens suffering from physical, mental, intellectual or sensory impairments is one of the essential indicators determining the degree of state accountability towards its citizens for the present and for the future.

According to the UN Declaration On the Rights of Persons with Disabilities adopted in December 1971 and ratified by a majority of the world's countries, "a person with disabilities" is any person unable to fully or partially meet the requirements of a normal personal or social life due to a lack of physical or intellectual abilities.

Tajikistan is increasing its efforts to provide social services to people with disabilities. For instance, the Law On Social Protection of People with Disabilities has been adopted and the disbursement of benefits provided by this law is currently under way. In addition, Rules for the Provision of Health Resort Treatment for the Disabled and Rules for the Provision of Technical Rehabilitation Means for the Disabled have been adopted.

Tajik laws provide allowances to pay for accommodation, utility services and stationary telephone lines. In addition, free accommodation for pensioners and the disabled is provided at therapy centres. Disabled people also have the right to free accommodation at a therapy centre and priority treatment vouchers, as well as free transportation.

Diagram 5.9. Average disability pension, TJS

Individuals with disabilities permanently residing in Tajikistan are entitled to special benefits if they have a limited ability to work and belong to the disability categories I, II, and III which include persons with lifelong disabilities and are not entitled to receive work pensions, as well as children with disabilities.

At present, almost all individuals with disabilities receive pensions and benefits. During the 2008-2012 period, the number of people receiving disability benefits increased by 8,600 individuals (i.e. more than by nine percent) and numbered 101,500 people. In total, the average disability benefits grew 2.4-fold.

In Tajikistan, there are eight residential institutions for elderly people and individuals with disabilities (adults and children), which are designed to accommodate 1,750 people. Of these, there are 1,649 places for the elderly and sick while 200 are reserved for children.

Special attention should be given to creating conditions that would facilitate the social integration and involvement of people with disabilities in the workplace, include them in affordable housing schemes, and provide them with access to social and transport facilities in urban areas.

Professional rehabilitation of the disabled is fundamental to their comprehensive re-integration. In terms of employing people with disabilities, it is important to introduce incentives for employers so that they employ people with disabilities in addition to providing other incentives for people with disabilities. Some examples of such incentives are provided below:

- extensive allocation of workplace quotas for people with disabilities;
- creation of subsidized jobs for the employment of people with disabilities;
- allocating social services at companies employing people with disabilities and changes to existing tender procedures;
- providing incentives to companies that create jobs for people with disabilities.

This being said, it is also necessary to revise the government's principal standards for the provision of social services in such a way that they would define the quantity and quality of services, as well as the organization of these services.

SOCIAL SECURITY

Several social programs are currently being implemented. The largest program aims to compensate the population for the costs of electricity and gas and the second largest program is designed for families in need and whose children attend school.

BOX 5.19. SOCIAL ASSISTANCE PROGRAMS CONTRIBUTE VERY LITTLE TO PROVIDING ASSISTANCE TO TAJIKISTAN'S POOR AND VULNERABLE POPULATIONS AND DO NOT CONTRIBUTE TO POVERTY REDUCTION AS BENEFITS ARE INSIGNIFICANT AND NOT TARGETED

In 2009, the Government spent 0.2 percent of GDP on social assistance. This makes Tajikistan's welfare program the least significant in terms of scale, even in relative figures, when compared to similar countries in Eastern Europe and Central Asia. Social security, which in broader terms includes child allowances, educational grants, veteran benefits, as well as subsidies for electricity and gas, covers only five per cent of the population. A household survey conducted as part of a long-term Central Asian inclusive social survey found an uneven distribution of social assistance across the country's regions. While almost sixteen per cent of households in GBAO receive various welfare benefits, in Dushanbe only one per cent of households receive benefits despite the fact that twenty-one per cent of households in Dushanbe belong to the poorest quintile of the population. Allowances related to energy resources cover less than two per cent of the population, but in GBAO this indicator represents ten percent while in Sughd Region it is four percent. For other region, it represents an insignificant percentage of the population.

The social welfare program, which is currently in its final stage of implementation, almost does not target the poor. According to the CALISS 2013 survey, the poorest quintile of the population received only seventeen percent of total welfare benefits while the remaining 83 percent are distributed across households in four well-to-do quintiles. At the same time, the richest one fifth of the population received twenty percent of total social benefits.

Gas and electricity allowances, according to the previous welfare scheme, seem to be more targeted to the poorest groups. However, only one half of these allowances are channelled to the two poorest quintiles while the rest are distributed among middle class and more well-to-do households. Still, the actual size of allowances remains insignificant.

Source: World Bank - Assessment of household energy deprivation in Tajikistan: policy options for socially responsible reform in the energy sector. July 2014

Some of the institutional problems associated with the implementation of two welfare programs are a lack of cooperation and coordination of activities between agencies and no clear division of responsibilities. The existing system also lacks effective mechanisms for targeting, financial control, audit and monitoring.

BOX 5.20. PROJECT SUPPORT FOR THE DEVELOPMENT OF A SOCIAL SECURITY SYSTEM

To support the country, the World Bank mobilized a grant of the Multi-Donor Trust Fund for Accelerated Support to Social Programs in the amount of \$2.2 million. These funds financed a pilot project and assessed the efficiency of targeted social assistance. The Bank also allocated an IDA grant worth \$3.2 million to provide assistance for the design and implementation of a national electronic register of social assistance. To support capacity building, a national register aiming to provide social assistance to the poor was also introduced.

The Government's first step to implement these reforms included the January 2011 launch of a pilot program in Yovon and Istaravshan Districts dedicated for the allocation of integrated welfare benefits to twenty percent of the country's poorest households.

In 2013, the government also scaled up a pilot project for targeted social assistance and increased coverage from two to ten districts. The World Bank continues to provide financial and technical assistance for this initiative with funds provided by the Trust Fund for Accelerated Support to Social Programs and the IDA project grant to strengthen the country's social protection system.

Currently, there are plans to broaden targeted social assistance. Ten districts are already covered and in 2014 the project is expected to expand its scope to cover 25 districts. It is assumed that the scheme will become operational at the national level by 2016. Activities for the revision of the proxy means test are under way aiming to identify errors regarding inclusion and exclusion and to conduct an assessment of the impact of this scheme.

In the context of gender equality, the social security sector shows the following trends:

- gender inequality in social security begins in the labour market;
- some groups of women, due to institutional limitations, do not have access to a number of welfare benefits and allowances, the financing of which is based on the insurance principle;
- in reality, the pension system based on a financially defined contributions scheme is not gender neutral;
- because of the insufficient development of the social services system, women choose to care themselves for members of their family;
- women are less motivated to invest in the acquisition of professional skills and human capital development.

As a result, the gender imbalance not only hinders poverty reduction but, in broader terms, also affects other standard of living indicators, such as the volume of potential opportunities and the level of power.

appropriate measures to create incentives for employment based on the recognition of the realities of national labour markets;

- ensuring that long term unemployed persons do not lose links with the labour market through such measures as further training to secure employment opportunities;
- provision of guarantees in relation to minimal allowances for countries where pension funds or health care funds are possibly not adequately funded to ensure appropriate levels of worker protection and a review of the most effective ways to protect employees' savings during the design phase of future programs; and
- ensuring adequate coverage for temporary and part-time employees.

BOX 5.21.

RECOMMENDATIONS OF THE INTERNATIONAL LABOUR ORGANIZATION REGARDING SOCIAL PROTECTION TO MITIGATE THE CONSEQUENCES OF THE GLOBAL FINANCIAL CRISIS

Sustainable social security for assisting vulnerable groups can prevent the increase of poverty and help overcome barriers in the social sphere by contributing to the economy's stabilization, maintaining existing jobs and also creating new jobs.

Depending on the actual situation, governments need to consider the following measures:

- implementation of the schemes of money transfers to the poor to satisfy their direct needs and alleviate poverty;
- establishment of adequate social security systems for all based on a minimum social security level, including access to health care, guaranteed income for the elderly and individuals with disabilities, child allowances and guarantees of income provision in combination with job creation for the unemployed and working poor;
- longer entitlement to unemployment benefits and enlarging the coverage with unemployment allowances along with

5.4. SOCIAL DEVELOPMENT AND SOCIAL POLICY IN THE REPUBLIC'S REGIONS

The country's regions are characterized by an uneven natural, material, technical, labour and financial potential. As a result, the country's regions find themselves in different socio-economic situations. Significant differences in the levels of socio-economic development among Tajikistan's regions were evident as far back as in the Soviet era. At present, despite their significant potential, these same regions move towards economic growth and human development very unevenly. To date, measures to ensure macroeconomic stability, institutional and structural transformations have facilitated only a slight scaling-down of regional differences in the country's development.

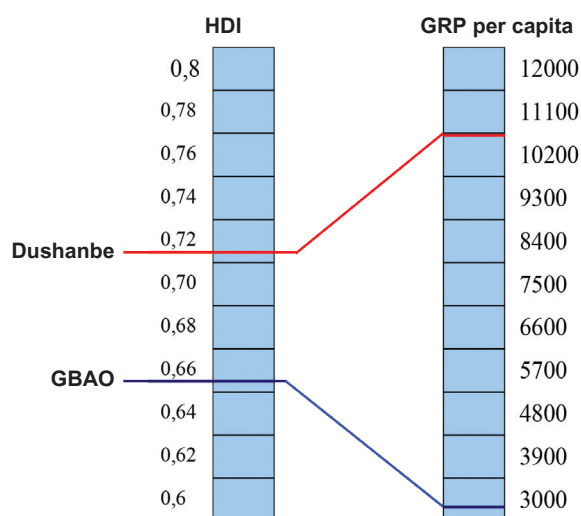
Regional differences at the level of aggregated territorial and administrative entities. Regional disparities with regard to HDI components are relatively more pronounced in income parameters - one of the parameters used for index calculation. Disparities in the economic development of regions primarily predetermine differences in human development.

However, if we compare the HDI for Dushanbe (relatively the highest level) and GBAO (relatively high level), the gap between these two regions does not exceed ten percent, but in terms of GRP per capita, these regions differ almost 3.5-fold.

Table 5.4. Difference between maximum and minimum HDI values per regions, - fold

Overall HDI index		per capita income index		including education index	average life expectancy index	
2008 r.	2013 r.	2008 r.	2013 r.	2008- 2013rr.	2008 r.	2013 r.
1,13	1,15	3,20	2,33	1,11	1,06	1,04

Fig. 5.2.
Human Development Index provides
a more comprehensive picture compared to per
capita income



The degree of disparities between the regions in terms of the Income Index is a bit lower which is due to inter-budget relations, in particular the provision of financial assistance to local budgets, which to a certain extent alleviates the regional disparities.

A broad range of Income Index values is explained first and foremost by Dushanbe's relatively higher economic development due to market-driven realities developing more intensively. In 2012, the city was home to almost 64 percent of small and 82 percent of the country's joint enterprises.

As to the gross regional product (GRP) indicator, the gap between the regions has not been bridged but has instead increased from 3.1-fold in 2008 to 3.5-fold in 2013.

BOX 5.22.

THE PROBLEM OF DISPARITIES IN REGIONAL DEVELOPMENT

Disparities in regional development are determined by both subjective and objective factors. Thus, the problem is to maintain the "permissible" regional disparities.

At the same time, from the point of view of methodology, an assessment of disparities should be based both on comparisons between the regions and comparisons within the region, as every region may have "trouble spots", which are not visible against the background of average parameters. Consequently, target or "permissible" levels of regional disparities should be justified, which will, in turn, allow an assessment of whether the situation is "critical" or "safe".

Tajikistan's regional economic policy must aim to prevent and reduce regional disparities. In order to ensure the effectiveness of such a policy, comprehensive actions are required both at the national and regional levels, which implies institutional capacity building along the entire power vertical. With that, improved information flows and situation analysis are important at all management levels.

The search for an optimal ratio between "levelling-off" and "encouraging growth areas" for regional development is of high importance.

Disparities between urban and rural areas.

A significant share of the country's population live in rural areas. At the beginning of 2013, the rural population was 5,878,700 people and represented 73.6 percent of the entire population of the country. Thus, the vast majority of working-age individuals live in rural areas. However, it is especially in these areas that a high demographic dependency ratio still exists. This provides evidence of the critical nature of the unemployment and income generation problem.

A large number of working-age population lives in rural areas. Considering the limited land resources for agricultural development, this hinders the development of productive forces in the country and poverty reduction. Furthermore, it requires creation of new jobs, including through the development of alternative non-agricultural employment, especially the enlargement of the industrial sector.

In general, living conditions in rural areas remain far less convenient as compared to urban areas. A considerable gap between urban and rural communities is observed in the social infrastructure. Towns and cities have a more extensive system of services, including trade, health care, consumer services, sports and culture. But in rural areas, social services are underdeveloped.

Urban communities also markedly differ from their rural counterparts in terms of their educational level. If, according to the 2010 census, the share of individuals with a profession was 22.8 per 100 people older than six years in urban areas, in rural areas this indicator stood at 2.4-fold lower, e.g. only 9.4 people.

Relatively higher infant and child mortality are also observed in rural areas, which is evidence of the relatively poorer access to health care services of the rural population.

Due to continued low profitability, consumer service centres were closed. In 2008 there were only two operating consumer services centres in rural areas. One of the reasons was considerable deterioration of equipment and buildings. It is only in the last two years that such consumer service providers have been expanding. In 2013 there were already twenty-eight such enterprises. However, the main obstacle still impeding the diversification of social services in rural areas and the development of private service providers is the low purchasing power of rural communities. The level of housing per capita is lower in rural areas as compared to cities and towns. If in 2012, this indicator for urban areas was on average 13.5 m²/person, in rural areas it reached a mere 6.7 m²/person. Furthermore, the quality of housing in urban and rural areas is also different.

There are also still significant disparities in the quality of water available to urban and rural communities both for household use and for drinking.

In addition, rural communities have limited electricity supply due to seasonal power cuts. This being said, rural areas, in contrast to cities and towns, have a significant potential to introduce sustainable energy supply systems using local renewable and unconventional energy sources due to their low energy consumption levels. It is only in recent years that mini hydropower plants have been introduced to ensure power supply in rural areas.

Diagram 5.10. Poverty levels by the regions of the Republic of Tajikistan, % (end of 2013)

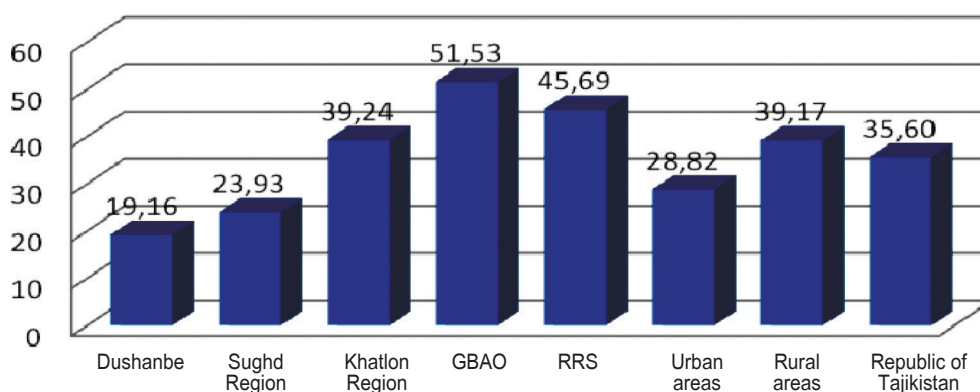
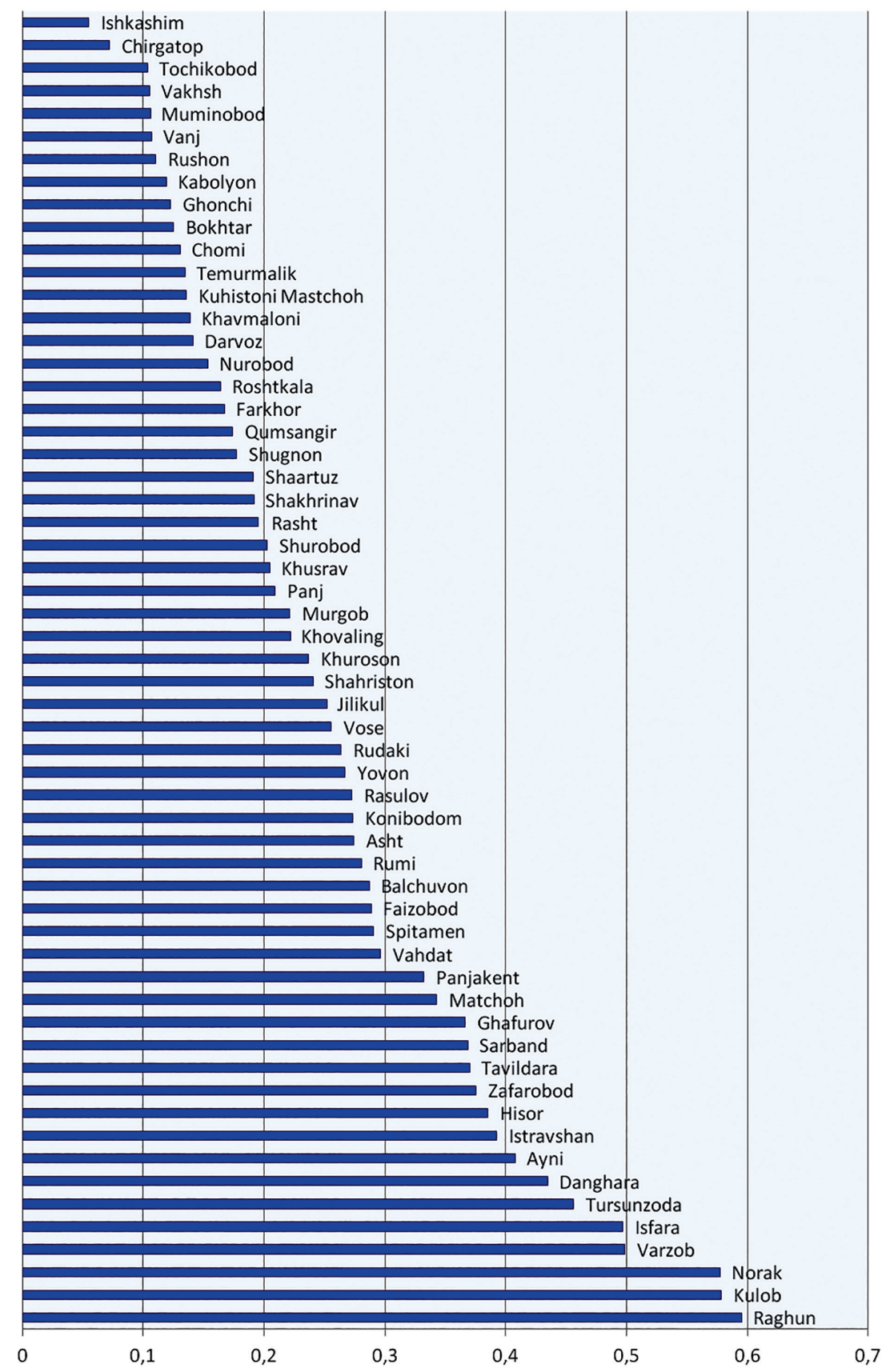


Diagram 5.11. Integrated estimates of the development of rural areas of the republic, end of 2013

Disparities in income and poverty levels.

The problem of poverty is still critical in the regions. The core issue is that, along with relatively well-to-do regions, there are also many territories that suffer from high poverty levels.

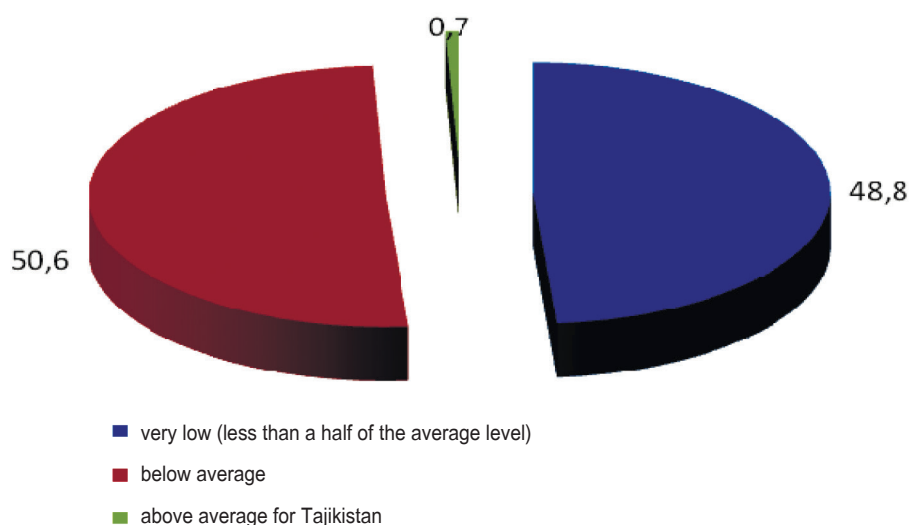
Moreover, according to all national poverty surveys conducted in 1999, 2003, 2007 and 2009, rural areas have higher poverty levels than urban areas. For example, in 2013 poverty levels in urban areas were almost eleven percent lower than in rural areas.

In rural areas, salaries are two or three times lower than in cities and towns. One also observes that in rural areas a considerable share of the population works in smallholdings which allows for the compensation of family expenditures for food. This explains why the non-monetary aspects of poverty reduction are related to access to social services.

Furthermore, the country's rural communities are more vulnerable to the degradation of the environment. To estimate and predict the socio-economic development of rural areas, there was a need to develop an aggregate value using a standard methodology. Thus, it has been proposed to use an integrated indicator to this end.⁹⁰

At the end of 2013, the integrated indicator showed disparities between the development levels in rural areas. The greatest disparities between rural areas are observed in the amount of tax revenues injected into local budgets per capita whereby disparities can be more than eight fold.

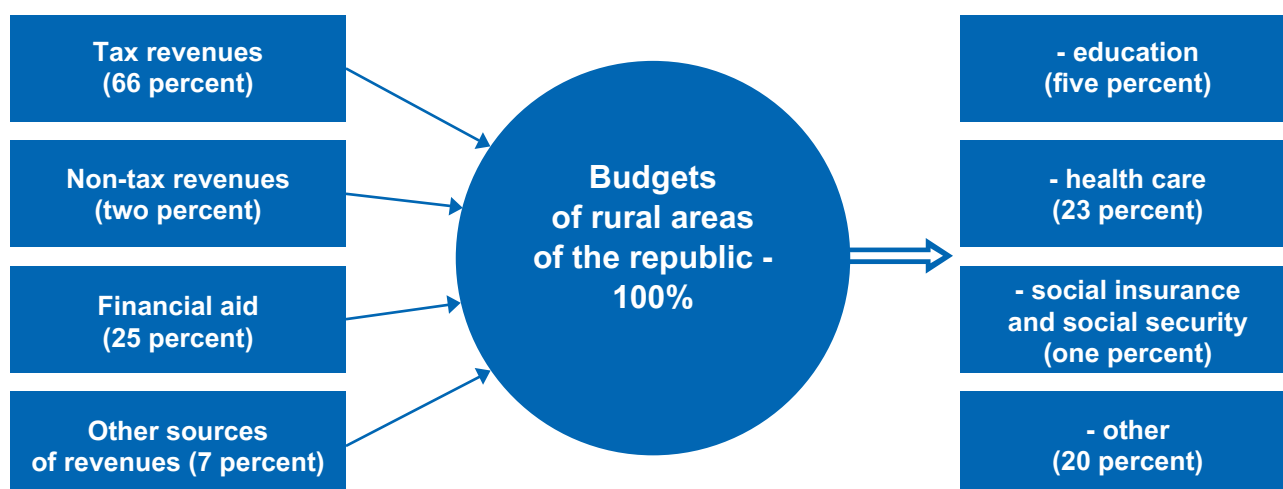
Diagram 5.12. Share of rural population living in the regions with various per capita revenues in 2013 (Percentage)



⁹⁰ It is calculated based on a range of values:

- tax revenues into the districts' budgets per capita, this indicator shows to what extent the region is capable of satisfying the needs of people;
- area of housing put in operation during the year per capita - demonstrates the purchasing power of the population;
- amount of paid services and retail trade turnover per capita, as well as the average salary in the region characterize demand for various goods and services.

Fig. 5.3. Overall amount of budget funds formed based on inventory of rural districts of the Republic of Tajikistan in 2013



Considering the low levels of tax revenue flowing into local budgets in particular for the less developed rural areas, central budget transfers somehow balance out conditions for the provision of basic social services in the regions. Funding for education and public health account for almost seventy percent of local budget expenditures.

BOX 5.23.

KEY ACTIVITY AREAS FOR THE STATE PROGRAM FOR RURAL SOCIAL DEVELOPMENT

The State Program for Rural Social Development for the period until 2020 was designed and has been implemented to improve living conditions in rural areas. The Program identifies thirteen national priorities. These priority areas include capacity building and broadening local self-government powers to regulate the process of social development; engage in residential construction; develop a network of preschool and other educational facilities; provide social security and services; strengthen the network of primary health care facilities; physical culture and sports, arts and recreational activities, trade and consumer services; information and consultations; the network of electricity transmission lines; supply of potable water, gas supply; communication networks; as well as the road network.

CHAPTER 6

Access to natural resources

6.1. THE ROLE OF ENVIRONMENTAL SECURITY AND SUSTAINABILITY IN HUMAN DEVELOPMENT

Sustainable human development involves a system of measures to ensure environmental safety.

Central Asian countries vary considerably in their size and natural resource endowments, as well as in their level of socio-economic development. However, they are highly dependent on each other in the areas of trade, energy systems, water systems, and ecology. Ensuring environmental security and sustainable development is one of the priorities of the national long-term development strategy. In this context, the following areas are of critical importance and require action. Following are some recommendations:

- implementation of environmental and economic practices for the sustainable use of land, water, forest, mineral and other resources;
- improving the domestic economy's energy efficiency through the implementation of government programs, a common policy for energy conservation and to stimulate economic entities to apply energy-saving technologies;
- encouraging the development of high-tech environmentally friendly production;
- modernization and development of environmentally friendly modes of transport, communications and fuel usage, including non-carbon fuel; transition to environmentally sound public transport systems for urban areas;
- encouraging the development of environmentally sound technologies in the housing construction and housing and utilities reconstruction sectors;
- development of legal mechanisms to stimulate the process of implementation of environmental technologies; environmental rules, regulations, laws, introduction of subsidies to reduce emissions and tax incentives.

- Regardless of the level of environmental safety, it is necessary to implement management and control over the natural environment, i.e. natural ecosystems and socio-natural ecosystems.

BOX 6.1.

EMPHASIS ON THE NEED FOR DIVERSIFIED DEVELOPMENT

Almost all Eurasian economies have recovered from the deep depression and difficult period of the 1990s largely as a result of the presence and exploitation of natural resources.

The region's countries benefit from natural resources and will continue to do so if Eurasian economies become more efficient. If economic growth increases, new jobs will be created in the private sector and economic instability will be reduced. Exports and production diversification are not sufficient for countries' development. There is little evidence that the concentration of economic activity is detrimental to productivity, growth and job creation. Eurasian economies will be much more effective if they focus more on the diversification of their national heritage, which entails ensuring a better balance between the exploitation of natural resources and developing physical and human capital as well as economic institutions. Consequently, the current model of economic growth must be transformed in order to achieve strong levels of social justice and efficient use of natural resources.

The following realities apply to Tajikistan:

- the country is closely integrated into Eurasia; therefore Tajikistan is directly affected by everything that occurs in Eurasia;
- the country is relatively poor in natural resources - the natural resources of Tajikistan are relatively few against the similar levels per

capita in Eurasia - more intensive exploration and use will contribute to their increase;

- The country is heavily dependent on commodity exports and money transfers.

Tajikistan should learn valuable lessons from the experience of other countries rich in natural resources, namely:

- stronger institutions, including management, are an important factor for development, especially when resources are relatively scarce;
- high cash transfers and wages could potentially contribute to the development of private enterprise and reduce poverty.

Diversified Development: Making the Most of Natural Resources in Eurasia International Bank for Reconstruction and Development / The World Bank, 2014

This is why an environmental safety management program should always include an analysis of the economy, its state of finances, resources, legal issues, administrative measures, education levels and cultural realities.

BOX 6.2.

BASIC FORMULATION OF SUSTAINABLE DEVELOPMENT

The Declaration of the UN Conference on the Environment (Stockholm, 1972) stated that “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations”. The decisions of the UN Conference on Environment and Development (Rio de Janeiro, June 1992) focused on the same issues.

This conference adopted two important documents: the Rio Declaration on the Environment and a Development Agenda for the XXI Century.

Tajikistan's constitution states that “the land, minerals, water, air, flora and fauna and other natural resources are the exclusive property of the state, and the state guarantees the effective use of them for the benefit of the people”.

BOX 6.3.

TAJIKISTAN'S LEGAL AND REGULATORY FRAMEWORK TO PROTECT THE ENVIRONMENT

The central state executive body responsible for ensuring environmental policy implementation is the Republican Committee on Environmental Protection. Land and water resources are managed by the Tajik Ministry of Agriculture, the Ministry of Energy and Water Resources, and the State Committee on Land Management and Geodesy.

Taking into account the urgency of global environmental problems and their inter-relation with local conditions and the state of the local environment, Tajikistan acceded to and ratified a number of international agreements, including:

- the Vienna Convention for the Protection of the Ozone Layer (1996);
- the Montreal Protocol on Substances that Deplete the Ozone Layer and the London amendment (1997);
- the UN Convention to Combat Desertification (1997);
- the UN Convention on Biological Diversity (1997);
- the UN Framework Convention on Climate Change (1998);
- the Ramsar Convention on Wetlands (2000);
- the Convention on the Conservation of Migratory Species of Wild Animals (2000);
- the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (2001);
- the Stockholm Convention on Persistent Organic Pollutants (2002);
- the Convention on Environmental Impact Assessment in a Transboundary Context (2004)

Tajikistan's Constitution's Article 17 states that "men and women have equal rights". This provision is equally binding for all spheres of life in Tajikistan, including for the issues related to the rights to land and water usage.

Women's access to natural resources is a matter of welfare not only for women but also for the entire household because women's income from their assets is more targeted towards fulfilling social needs. Thus, children's nutrition is more linked to women's income levels than men's. In addition, the corresponding relative access to resources potentially contributes to women's empowerment and reduces the risk of abuse and domestic violence as it makes women less dependent economically on their husbands. Also, ensuring women's access to resources can contribute to achieving the Millennium Development Goal on gender equality.

Equal access to natural resources for both men and women also contributes to positive environmental development as it creates more favourable conditions for:

- efficiency in economic performance;
- social welfare;
- women's empowerment.

In Tajikistan, progress in achieving Goal 7 - Ensure Environmental Stability - is provided as part of the implementation of the National Development Strategy for the period up to 2015, and the 2013-2015 Strategy for Improving the Well-being of Tajikistan's Population.

BOX 6.4.

DIRECTIONS FOR 2013 - 2015 TOWARDS ENVIRONMENTAL SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT:

- implementation of structural reforms in state bodies in the environmental protection and ecological safety sectors;
- implementation of commitments of international environmental conventions ratified by the Republic of Tajikistan, and ensuring the implementation of national strategies and plans to protect biological

diversity, address the issues of climate change, devastation of territories, as well as other national and regional programs;

- provision of waste management systems and use of modern technologies for waste processing;
- reducing the main sources of water pollution as a result of water usage in the municipal, industrial and agricultural sectors;
- attracting local and foreign investment and effective use of investment to provide for environmental sustainability and sustainable development.
- implementation of the 2010-2015 Strategy for Natural Disasters Reduction;

Source: Living Standards Improvement Strategy
of Tajikistan for 2013-2015

The country has increased its active use of mechanisms for an integrated approach to solving socio-economic development challenges while taking into consideration environmental issues. However, there are certain obstacles when it comes to promoting the implementation of Clean Development Mechanisms and for the development of a green growth model.

Despite the fact that Tajikistan's share of total global anthropogenic emissions is low (less than 0.5 percent), the global nature of climate change calls for all states to take urgent action.

Tajikistan is included in the group of countries having a constantly growing need for resources such as energy and water. The plans for strategic development and economic growth must take into account environmental issues and plans for adaptation to climate change.

The relevant policies should contribute to development, reduce vulnerability to climate change and move towards a green growth model. The transition to an economy adapted to climate change will require considerable time and financial investments. Conversely, it will prevent economic losses in the future and save the environment for future generations.

BOX 6.5.**CLIMATE CHANGE WILL AFFECT TAJIKISTAN'S NATURAL RESOURCES. THEREFORE, IT IS IMPORTANT TO TAKE IMMEDIATE ACTION TO IMPLEMENT ADAPTATION MEASURES**Climate change impact on Tajikistan:

- By 2030, an increase in the average temperatures by 0.2 - 0.4 °C is expected in most areas of Tajikistan (as compared to 1961-1990). This trend coincides with trends prevailing in the country over the past 15-20 years.
- It is expected that predicted rainfalls will show large shifts in terms of climate changes, intensity and geographical distribution. Summers are expected to be wetter while winters will be drier, which can result both in flooding and more prolonged droughts.
- Many of the small glaciers in Tajikistan will completely disappear in 30-40 years if the current rate of glacier degradation continues;
- Tajikistan's forestry is vulnerable to both forest fires and outbreaks of diseases and forest pests, the effects of which can be exacerbated by climate change. As a rule, both of these factors tend to reduce the accumulation of carbon by forests;
- Climate change is expected to result in more extreme weather events and climate-related threats (e.g., increased flooding and prolonged droughts due to dry winters and wet summers).

Looking into the future

On the basis of a review of national climate-related issues and the existing programs and policies, the following areas have been identified for urgent initial interventions:

An improved science-based understanding of the nature and extent of physical and biophysical impacts of climate change under different scenarios. This is important to gain a better understanding of the timing and the scope of important climate change indicators, key vulnerabilities, as well as the impact on development and possible adaptation measures;

- An evaluation and analysis of inaction, as well as the main areas for activities within the water, energy, agriculture, forestry, transportation and health care sectors, in order to provide convincing economic arguments, as well as a comprehensive review of the country's "road map" and next steps to resolve climate change issues;
- The development and implementation of "smart" solutions to climate problems in different sectors at national and domestic levels, as well as for cooperation on a regional scale between the countries of Central Asia. An analysis of the advantages of cooperation and creation of relevant institutions in the region;
- Empowerment of the Secretariat of the Pilot Program for Climate Resilience (PPCR) in terms of coordination and implementation of the country's adaptation projects, as well as the creation of an Inter-sectoral Technical Working Group that would ensure the implementation of local policies and measures;
- The establishment (or use of existing mechanism) of the Regional Central Asian Steering Committee on Climate Change, including high-level representatives of the five countries of Central Asia. The Committee will be responsible for overall management, policy support and leadership. Also, the Committee will act as a platform for the ongoing coordination of regional efforts to address and adapt to climate change.

Source: Tajikistan - Overview of Climate Change Activities, October 2013

Adverse interaction of the economy and natural resources is not inevitable, and, as the very first step, the government and society in general should gain an understanding of the potential problems and formulate a clear position on how to plan to solve them.

6.2 ACCESS TO WATER RESOURCES

Water is one of the pillars of sustainable development since it is closely linked to a number of key issues such as food security, sustainable agricultural development, health, sustainable development of cities and towns, protection of biodiversity, prevention of desertification and land degradation. All of this highlights the importance of using a multi-sectoral approach to water resource management.

Tajikistan is rich in water resources.

BOX 6.6.

WATER RESOURCES OF TAJIKISTAN:

- Glaciers: volume - 845 km³, area - 11146 km²;
- Average long-term river flow - 64 km³ per year (55.4 percent of the Aral Sea basin flow);
- Groundwater resources - 18,7 km³ per year, 2.8 km³ of which are operational resources;
- Lakes - 1,300 lakes with an area of 705 km². The volume of lake water totals 46,3 km³, 20 km³ of which is fresh water;
- Water reservoirs: volume - 15,34 km³, which makes 13 percent of the average long and mid-term river flow in the Aral Sea basin;
- Recycled water - 3,5 - 4,0 km³ per year (3,0 km³ - collected and drained waters, 0,5 km³ - public utilities);
- 200 mineral sources, 18 mud and saline lakes;
- Recreational potential - over 5 percent of the territory; 2567 km² (about 2 percent) of them - owing to the water resources;
- Hydropower potential totals 527 bln kWh per year, less than 5 percent of which is used.

The volume of Tajikistan's water resources meets the needs of the national economy both for present and future requirements. However, due to unequal distribution both in the country and over time, there is a shortage of water in some of the country's regions. During peak summer, demand for irrigated water, at 90 percent of the river flow at the basin of the River of Amu Darya, the water shortage reaches 465,5 mln m³, while the basin of Syr Darya - 94 mln m³. Overall, the water deficit across the country totals 560 mln m³. At that rate, water resources are used inefficiently. Consequently, an important issue is how to optimally use water resources.

Currently, about 4.24 mln people have access to drinking water across the country. Only 52 out of the 62 cities, regional centres and towns have a centralized system of water supply, and only 28 of them have a sewerage system. In total, 44 percent of the urban population and 5 percent of the rural population have access to safe sanitation facilities⁹¹. The total volume output of drinking water supply facilities is 1,834.59 m³ per day. It is distributed across the regions as follows: Khatlon Region - 373.52 thousand m³/ day, Sughd Region - 409.82 thousand m³/ day, cities and districts of republican subordination - 176.07 thousand m³/ day, Gorno-Badakhshan Autonomous Region - 19.18 thousand m³/ day, the city of Dushanbe - 856 thousand m³/ day.

BOX 6.7.

POTENTIAL REASONS FOR THE LACK OF ACCESS TO WATER RESOURCES:

- increase in domestic water use due to increased population density and leakages in potable water supply systems;
- intensive agricultural production, mainly in the regions where water is used for irrigation;
- increasing industrial water use due to the increasing concentration of industrial operations and inefficient consumption;

Potentially, the following measures can contribute to the improvement of water management efficiency:

- improved monitoring of water use;
- more efficient use of water resources through the implementation of water-saving technologies in all sectors, with particular attention to an improvement of irrigation technologies;
- improvement of industrial and domestic waste water treatment systems;
- determination of the value of water resources in the national accounting system, given that measures to ensure the high quality of drinking water may require additional funding;
- promoting the development of integrated water management with an understanding of the relationship between: groundwater sources, surface waters and other elements of the water cycle, land use, economic and social activities, the status of water resources, the quality and quantity of water;
- development of transboundary systems for the management of water resources with a view to harmonizing activities in all of the basin countries.

⁹¹ Tajikistan: Poverty in the Context of Climate Change // National Human Development Report 2012. p. 68

In 2006, in order to address existing problems, the government adopted a special program for the 2008-2020 period with a view to improving Tajikistan's supply of clean drinking water. The program's main objective is to ensure the constant supply of clean and safe drinking water for the country's population. The Government recognises the need for the following activities to be carried out:

- training of technical and managerial personnel for the sector, improving the culture of water consumption through sanitary and hygienic measures, promoting public and private investment in water supply systems development;
- rehabilitation of the existing water supply systems; construction of small, medium and local systems, water wells for individual and group use on the basis of relevant design solutions;
- introduction of new technologies, methods of rehabilitation, modern methods of drinking water disinfection, automated control systems, quality control and water accounting, physical disinfection with the use of ultraviolet radiation, construction of a laboratory to determine the quality of water;
- implementation of new technologies to soften and clarify drinking water from water sources with high water hardness and silt content through disinfection and existing physical methods;
- rehabilitation, reconstruction and expansion of the existing systems, construction of new centralized water supply systems on the basis of feasibility studies with the use of modern methods of water supply, equipment, materials, metering and control devices, disinfection and self-management means;
- the targeted use of domestic and foreign investment as well as the introduction of effective technologies and equipment;
- enhance scientific research and design and production capacity;
- construction of local water supply systems in the mountainous areas of the country rich in springs, rivers, streams and ground waters with sufficient flow capacity and good quality.

The Government's program for 2008-2020 aims to ensure sustainable access to clean and safe drinking water for 7,683,900 people, including 6,304,000 people living in rural areas.

BOX 6.8. **EXAMPLES OF WATER SUPPLY AND SANITATION PROJECTS**

UNDP, in partnership with OXFAM, and with the financial support and in cooperation with the SDC, has launched the Tajikistan Water Supply and Sanitation Project (TajWSS) in 2009. The project aims to strengthen policy development and reform at the national level in water supply and sanitation management and governance in Tajikistan. It seeks to improve the overall coverage of rural communities that have access to a piped water supply. The Phase I of the project has demonstrated that it is possible to contribute to the institutional and policy reform in Tajikistan and that traction on the sustainability agenda is possible. Building on the success of the Phase I, the TajWSS project has scaled up its interventions at the district level in Rudaki, Muminabad and Kulob, while continuing to advocate for change and develop recommendations for further reforms at the policy level in the Phase II of the project.

The state of potable water supply facilities suggests that due to the ageing of infrastructure, there are losses of potable water in the form of leaks from the water systems (50-60 percent on average), which reduces the degree of access to drinking water and results in the contamination of the groundwater and creates risks in terms of epidemiological conditions.

In addition, the country has a problem of water pollution due to municipal, industrial and agricultural waste emissions. Agricultural waste exceed the established limits (3.3-4.1 km³). Drain water contains pesticides, nitrates and phosphate above permissible levels (twenty percent of nitrates, five percent of phosphate, four percent of pesticides).

Currently, due to population growth, the problem of access to water resources is becoming more complicated. For example, irrigation system capacities make it impossible to ensure adequate access for the entire population to water resources. One of the ways to ensure water conservation is integrated water resources management and promoting water cooperation, which is critical to ensuring access to pure drinking water for citizens.

One of the key elements reducing the population's access to water resources is the poor technical condition of the pumping stations and irrigation and drainage wells. According to calculations performed by specialists, the depreciation of fixed assets in this area has exceeded fifty percent, including sixty-five percent of the pumping stations and seventy percent of the irrigation and drainage wells, which negatively affects timely and sustainable water supplies, as well as environmental conditions.

BOX 6.9.

IRRIGATED AGRICULTURE IS ONE OF THE MAIN SECTORS OF TAJIKISTAN'S ECONOMY, ENSURING FOOD SECURITY AND RURAL EMPLOYMENT

The country's total area of lands potentially suitable for irrigation is 1,570 thousand hectares; as of January 2014, 749.9 thousand hectares are cultivated, including 282.9 thousand hectares irrigated by pumping stations. The irrigated lands are serviced and maintained by 7,099 waterworks, 396 pumping stations (the total length of the pressure flow-lines makes 624.67 km.) and 1,516 pumping units.

Currently, the Government is implementing the 2012-2020 Program for the Development of New Irrigated Lands and Rehabilitation of Lands Excluded from Agricultural Production. The implementation of this program will enable the country to cultivate 3,890 hectares of irrigated land and include 7,800 ha in agricultural production, which could result in the creation of more than 70 thousand new jobs in rural areas.

In 2010-2013, the area of land improvement amounted to 42, 2 thousand hectares.

Agency of Land Reclamation and Irrigation
of the Government of the Republic of Tajikistan

The country is carrying out institutional changes in the water economy sector. By Resolution #551 of December 1, 2001, the Government adopted the Policy of Rational Use and Protection of Water Resources in the Republic of Tajikistan. In addition, it also adopted the national Law on Environmental Protection, the Water Code, the Law on Associations of Water Users, the Law on Drinking Water and Drinking Water Supplies and other normative legal acts. The goal is to comply with the most advanced international standards and principles, as well as to attract necessary investment in the water supply sector and to ensure equal access to water resources for all of segments of the population. However, these institutional changes have nevertheless thus far failed to adequately facilitate access to water supplies for the entire population.

BOX 6.10.

HOW TO MANAGE WATER RESOURCES

Tajikistan's water sector is undergoing a reform process towards Integrated Water Resources Management (IWRM). IWRM is a process that promotes the coordinated management of water, land and related resources in order to maximize the economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. The current water management is based on administrative boundaries, which often infringes the rights of downstream water users, while IWRM calls for transition to hydrographic management method that provides a stable and equitable water supply to water users regardless of location. With support from Swiss Development Cooperation (SDC), UNDP aims at developing and implementing water efficiency strategies at national and basin levels.

In doing this, the intervention strategy is to support the IWRM governance and institutional reform, as well as concrete projects to improve (a) irrigated agriculture, (b) the rural water supply and sanitation, and (c) small-scale hydropower service delivery. At the regional level, UNDP contributes to trans-boundary trust building and conflict prevention through strengthening water cooperation mechanisms in Fergana valley (Isfara sub-river basin).

For the operation and maintenance of irrigation systems and to ensure water supply, networks of associations of water users are formed.

The main objectives of water users' associations are as follows:

- ensuring reliable operations of irrigation and drainage systems, pumping stations and other land reclamation infrastructure;
- planning and performing of repair works;
- ensuring equitable distribution of water between users;
- establishment of water supply contracts with district irrigation systems for its further supply to users;
- fundraising among water users to ensure the sustainable operation of the irrigation system as a whole.

BOX 6.11.

WATER USERS ASSOCIATIONS (WUAS)

IN TAJIKISTAN are created with the purpose of preserving and operating common and individual on-farm irrigation systems.

By 2014, the country had established 384 WUAs, mainly in the gravity irrigation areas. However, 138 of these WUAs do not function properly. The main reason for the unstable operation of the WUAs is the unavailability of digging and other land reclamation mechanisms and machinery, as well as a lack of qualified personnel and financial resources.

It is planned to extend the coverage of WUAs' operations in the areas of machine irrigation and to solve the issue of transfer of the on-farm irrigation systems and collection and drainage networks to WUAs.

Improvement and Irrigation Agency
under the Government of the Republic of Tajikistan

The use and protection of water resources is grounded on a combination of basin-based, territorial and administrative-territorial governance principles implemented by the Tajik government, local executive authorities, as well as specially authorized state bodies involved in the management and protection of water resources⁹².

Four specially authorized state bodies have been legally appointed to be directly involved in regulating the use and protection of water resources:

- the Ministry of Energy and Water Resources;
- the Republican Committee on Environmental Protection;
- the General Directorate for Geology under the Government;
- the General Directorate for State Supervision over Safety in Industry and Mining.

BOX 6.12.

THE PRINCIPAL STRATEGIC AND PRIORITY AREAS TO ENSURE ACCESS TO CLEAN WATER AND UTILITIES:

- development and adoption of minimum standards to provide the public with clean drinking water and utility services that are guaranteed by the state;
- the development and adoption of the Law on Human Rights to Clean Water and Utility Services;
- obliging the local executive authorities and governments of towns and villages to ensure compliance with minimum standards for the provision of clean water and sewerage systems locally;
- involvement of civil society in the management of potable water and connections to the sewerage system.

The main strategic and priority tasks implemented in 2013-2015 in order to provide the population with clean water and public utility services are as follows:

- upgrading and development of engineering and municipal infrastructure in the country's cities and towns;
- ensuring the implementation of the 2008-2020 Program for Clean Drinking Water Supply and the 2005-2015 Action Plan for the International Decade for Action 'Water for Life';
- creating conditions for attracting private investment, providing state support for housing and communal services and increasing this sector's technical capacity;

⁹² Report of the Republic of Tajikistan 2006, supported by UNEP within the Johannesburg Plan of Implementation (JPOI) "Integrated Water Resources Management (IWRM) and Water Efficiency Plans by 2005", providing support to developing countries.

- implementation of comprehensive measures to de-monopolize this sector, organize services for the market and develop competition models involving small and medium-sized enterprises;
- streamlining the system of benefits and strengthening the targeted use of funds;
- increasing the sector's institutional capacity and quality of housing and communal services.

Living Standards Improvement Strategy
of Tajikistan for 2013-2015

The key role of women in local water management is increasingly being recognized. Furthermore, it is understood that women's access to clean water for domestic and industrial needs is essential for the well-being of communities and to promote gender equality. Women's safe access to water, housing and sanitation is particularly important in situations of conflict as well as in poor areas. As the UN Committee on Economic, Social and Cultural Rights emphasized, "the human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use" (2002). It also assumes the protection of health and integrity of ecosystems.

6.3. ACCESS OF POPULATION TO LAND RESOURCES

Tajikistan is one of the land-poor countries in Central Asia. Eight per cent of the country's lands are suitable for crop cultivation. The natural low land productivity causes significant costs of agricultural and land reclamation works.

Despite this, agriculture is the basic source of existence for the rural population. The total area of arable land is 720,200 hectares, 502,800 hectares of which are irrigated, which makes 0.10-0.09 ha of arable land and 0.06-0.07 ha of irrigated land per capita in the country. In a context of demographic growth whereby the republic's population is growing by about two percent annually and the arable lands are, unfortunately, shrinking, the issue of fair and equitable allocation of and access to land and ensuring equal rights to land for both men and women is more pressing.

The pressure on land resources varies considerably across Tajikistan's four administrative regions. It ranges from six persons per hectare in the regions with larger areas of arable land (Khatlon Region and Sughd Region) to ten persons per hectare in the RRS and sixteen persons per hectare in the GBAO where arable land funds are limited.

The most serious environmental problems affecting the productive capacity of land are degradation and desertification.

Land degradation is greatly affected by poverty, especially among the rural population where at the end of 2013 it reached 39.2 percent. Most land users, lacking sufficient financial resources, are not able to effectively deal with land degradation.

There exists a cause-and-effect link: poverty - land degradation - food security, where poverty is both a cause and a consequence of land degradation.

The slowest pace of poverty reduction is observed in the country's arid regions, which not only affects the achievement of MDGs but impedes the implementation of measures to restore degraded land.

Land degradation is caused by the following anthropogenic factors:

- inappropriate land use: constant extensive land cultivation without meeting agricultural requirements resulting in the soil structure destruction, reduced fertility and increased risk of erosion, especially for sloping lands;
- smallholder farming leads to soil destruction and affects soil fertility due to non-compliance with agricultural technology. A relatively large part of dehkan farms have less than one hectare of arable land. The size of landholdings and separate farming make it very difficult to maintain crop rotation and to organize anti-erosion works, which could ensure the preservation and improvement of soil fertility of arable land;
- changes in cultivation methods which violate agricultural process requirements both in terms of quality and timing and because of the use of obsolescent and physically outdated agricultural equipment;
- inefficient use of water and soil erosion. Irrigation of some of the dehkan (farming) plots is performed with relatively large quantities of irrigation water, which results in increased erosion and high ground water levels;

- overgrazing and degradation of pastures. The pastures located near populated areas are used non systematically and intensively. Vegetation and soils are destroyed, pasture productivity declines and soil erosion increases. Distant pastures are underutilized and, for this reason, grow over with inedible, harmful and poisonous plants.

To date, the country still has a problem with assessing the scope and extent of land degradation. It is estimated that about ninety percent of rain-fed croplands show signs of deterioration while forty percent of them are severely degraded. It is estimated that the degradation of forest vegetation affects about seventy percent of the area. Twenty two percent of irrigated arable lands show strong degradation while thirty-eight percent show light and medium degradation and forty percent show no degradation. The agroforestry system shows the lowest degradation levels: twenty two percent with strong degradation, thirty percent with weak and moderate degradation, and about half of the area at forty-eight percent with no signs of degradation.

In order to restore productivity of degraded lands, to preserve the value and impact of agricultural land, and to avoid further destruction of land resources' productive capacities, it is necessary to develop and implement an effective program for the development of land use to introduce innovative technologies, to take steps to reproduce soil fertility of irrigated lands', as well as to mobilize financial resources for sustainable land management.

In order to positively solve problems of effective land use, it is important to switch to: progressive methods of irrigation in geographic areas affected by water erosion, to integrate biological methods of crop protection, and also to promote adaptation mechanisms within the strategy for an optimal use of land resources.

By implementing agrarian and land reform, the Government will make efforts to improve people's access to land, especially to agricultural land. In order to improve the rural population's access to land, in 1995 and 1997, 75 thousand hectares of land were allocated by a presidential decree for the development of private farms.

Another step towards improving people's access to land was the adoption of Presidential Decree #478 as of February 2, 2001 on the Reorganization of Agricultural Enterprises and Organizations, which resulted in reorganization of 120 farms into 1,355 smallholdings.

The Governmental Decree #385 as of October 1, 2002 on Reorganization of Agricultural Enterprises and Organizations in 2002-2005 resulted in the reorganization of forty farms in 2002, 100 farms in 2003, forty-five farms in 2004 and forty farms in 2005. These steps facilitated the process of developing smallholdings and improving the population's access to land. People's access to land, especially in rural areas, contributes not only to their food self-sufficiency but also enables the rural population to improve their families' welfare.

BOX 6.13.

CHANGES IN TAJIKISTAN'S LAND RELATIONS AND INCREASED ACCESS TO LAND USE RIGHTS

is one of the main factors determining increases in land productivity, which contributes to developing the agricultural sector and addressing food security issues.

Land reform was one of the mechanisms that allowed allocating more land for rural households and farmers.

Land reform in Tajikistan has had two major consequences in terms of distribution of arable land among different categories of households:

- almost twenty percent of arable land is currently used as homestead plots, which is a multiple increase when compared to the traditional four to five percent of land used in this way during the Soviet era;
- the total area of smallholdings has increased from less than a half of the arable land in 1995 to sixty-five percent in 2009.

Thus, smallholdings and land plots taken together accounted for eighty-five percent of all arable land in 2009 against five percent in 1991.

Despite significant institutional changes, certain categories of the population, especially women, are vulnerable in terms of access to land and they are also not significantly involved in land management.

At the same time, the intensity of the labour migration process, which involves a relatively larger part of the working male population, can influence the situation in the country. As a consequence, work in homesteads, field work and most agricultural operations are carried out by women.

There are a number of serious problems there that need to be taken into account in the process of predicting the country's social and economic development and formulating a preventive and proactive policy. The problems are as follows:

- if current demographic trends persist, the area of arable land and irrigated land will decrease;
- if urban, rural and industrial construction continues and remains uncontrolled in some areas, the total area of arable land will be reduced;
- if a funding shortage persists, the reclamative condition of agricultural land will deteriorate;
- if application of organic and mineral fertilizers remains limited, it will be impossible to stop the rapid decrease in organic substance, i.e. humus in the fertile soil layer;
- if the statistical reporting system is not worked out to improve the completeness and quality of information reflecting the situation of agricultural land, taking targeted actions will remain problematic;
- if the problems of electricity shortages persist and if the problems of hydraulic constructions and water-lifting devices are not addressed, it will be difficult to solve the problem of delayed water supply to tracts of land.

The possibility to use water resources is usually associated with land rights. At the same time, it is necessary to create, at the national level, a sustainable system for the development and application of the rules (in particular, constitutional, legislative, administrative and legal rules) regulating land use issues, including the degree of responsibility for the irrational use of land and its degradation.

Women, despite a proclaimed legal equality, have unequal access to economic resources, including land, as compared to men. Rural women are not sufficiently aware of their economic rights, including the right to land and the right to use of natural resources.

As a result, in practice, men are the main property owners. However, this situation is not only related to the lack of awareness among women about their rights. It is also because of the non-compliance of the actual legal practice with the de jure standards, and women's low access to credit and capital.

The main factors affecting the implementation of rural women's rights are poor infrastructure in rural areas, low levels of education, lack of awareness and a lack of knowledge about their rights, land reform and knowledge about the procedures to create smallholdings.

As for environmental actions, it is important to take steps to introduce a monitoring system to assess desertification and to support mechanisms for a sustained fight against it, as well as for dissemination of best practices in drip irrigation to save water and reduce the soil degradation process.

6.4. REGIONAL ASPECTS OF AIR QUALITY

Access to fresh air: on the whole air quality in the country complies with international standards; however this is achieved primarily owing to pure air in the mountains and surrounding areas.

At the same time, increasing economic activity (vehicles, construction of coal-fired thermal power plants due to the lack of hydroelectric power) on the one hand, and non-compliance with environmental measures on the other aggravate the situation in terms of access to clean air in the cities and valleys of the country.

The problem of air pollution in the country is due to the industrial production, the development of the transport sector, as well as the consumption of fossil fuels to generate heat and electricity.

BOX 6.14.**AIR POLLUTION IN THE URBAN AND INDUSTRIAL AREAS OF THE COUNTRY**

is one of the country's greatest ecological safety problems. The main sources of air pollution are major industries and vehicles. According to official data, Dushanbe alone has seen the number of vehicles increased by 125 percent. Of this, eighty percent are vehicles that have been used for a long time. Furthermore, control measures implemented by the relevant authorities regarding vehicle emissions and quality checks of vehicle compliance with environmental standards are insufficient.

Living Standards Improvement Strategy
of Tajikistan for 2013-2015

A significant recession in the economy has led to a reduction in activity levels of many industries and has caused some of them to shut down production. The predominance of primary industries along with a reduction of priority engineering production, light industry and food industry, have resulted in lower emissions of harmful substances into the atmosphere by these companies, most of which operate in country's cities and towns.

The main anthropogenic sources of air pollution are mining, processing, chemical, textile and fuel-and-energy companies, as well as construction and cotton processing companies. Their total emissions across the country make about eighty-eight percent of the pollutant emissions from stationary sources. The most polluting production industries (mining and processing, construction materials, non-ferrous metals) are characterized by the most intensive growth rates (15 – 40 percent) as compared with the overall average industrial production growth (15 percent).

Eighty percent of organised sources of pollutant emissions at the existing industrial facilities are equipped with dust and gas filters with a total capacity of about 16,700 thousand m³. About 500 stationary sources require an installation of dust and gas cleaning systems. In 1991, the degree of pollutant collection efficiency by dust and gas filters averaged 87.5 percent. Recently, due to operations by more than eighty percent of technically outdated and worn-out equipment, the average efficiency of dust and gas filters decreased to 65 percent⁹³. Industrial growth requires rehabilitation of the existing dust and gas filters, as well as the installation of new cleaning systems that will meet technical requirements for cleaning waste gases from industrial plants. With the growth of industrial production, emission of pollutants will increase by several times if existing dust and gas filters are still used. As a result, the decrease in industrial production of 1990 – 2003 produced a sharp decline in the emissions of air pollutants from the stationary sources of pollution.

Road transport is currently the main source of pollutant emissions into surface air and accounts for about sixty percent of emissions of sulphur dioxide, eighty three percent of carbon oxides, ninety three percent of nitrogen oxides and ninety percent of lead compounds and nearly one hundred percent of volatile hydrocarbons.

Air pollution levels strongly depend on road transport operating conditions, namely the poor quality of motor fuel, the use of leaded gasoline, poor technical conditions of vehicles and roads, a lack of vehicles with catalytic gas converters, the high percentage of depreciated vehicles which totals thirty six percent across the country.

An analysis of air pollution across the country shows that Dushanbe, Kurgan-Tube, Khujand and Tursunzade are the most polluted cities. The atmosphere in these cities is polluted due to industrial emissions, road transport, reduction of green areas and high natural dust content.

⁹³ United Nations Environment Program Report, Integrated Assessment: State of the Environment of the Republic of Tajikistan, 2006

6.5. ENVIRONMENTAL INDEX DYNAMICS FOR THE REPUBLIC OF TAJIKISTAN

The increasing trend of shifting to sustainable development in the world requires incorporating environmental aspects into the country's principal socio-economic development indicators.

BOX 6.15. THE WORLD AND SUSTAINABLE DEVELOPMENT

The basis for a sustainable development strategy is the balance between the environment and its resources, the economy and the population of the Earth.

Currently, studies are under way to measure sustainable development through integrated indicators:

- the World Bank (adjusted net saving);
- the UN's System of Integrated Environmental and Economic Accounts (Integrated Environmental and Economic Accounting);
- the UNDP Human Development Index (HDI);
- the UN's Millennium Development Goals (MDG), which aim for environmental sustainability;
- the World Bank's new look at the wealth of nations;
- the European Community (GARP1, GARP2, TEPI projects, etc.);
- Reports by the Nobel laureates Stiglitz and Sen (2009) which examined the need for new approaches to development. Fundamental point: subtraction of the damage caused by the environmental pollution and depletion of the natural resources.

Very active attempts have been made in the world to calculate aggregated indices:

- the Living Planet Index, which is calculated by the World Wild Fund to obtain estimates of the natural ecosystems of the planet. The living Planet Index measures the natural capital of forests, aquatic and marine ecosystems and is calculated as an average of three indicators: the number of animals in forests, in water ecosystems and in marine ecosystems;
- the Ecological Footprint (pressure on nature), which measures the consumption of food and materials by populations in equivalent areas of biologically productive land and sea areas required for the production of these resources and the absorption of waste; energy consumption is measured in an equivalent area required to absorb CO₂ emissions. The economic footprint per one person is the sum of the following six components: the area of arable land needed for cultivation of cereals consumed by humans; the area of pasture for livestock production; the area of forest for wood and paper production; the sea area for production of fish and seafood; the territory consumed by housing and infrastructure, the area of forests to absorb CO₂ emissions produced by per capita energy consumption.

Table 6.2. presents estimates of sustainability in CIS countries calculated by the World Bank.

Table 6.1. Integral indicators of sustainability in CIS countries

Countries	Adjusted net savings (% of GNI)	Ecological footprint (hectares per person)	Environmental Performance Index (score from 0 to 100)
Azerbaijan	5,4	1,9	59,1
Armenia	9,6	1,8	60,4
Belarus	16,9	3,8	65,4
Kazakhstan	-1,2	4,5	57,3
Kyrgyzstan	9,4	1,2	59,7
Moldova	16,2	1,4	58,8
Russia	-0,8	4,4	61,2
Tajikistan	6,2	1,0	51,3
Turkmenistan	...	3,9	38,4
Uzbekistan	...	1,7	42,3
Ukraine	5,6	2,9	58,2

Tajikistan's estimates show relatively little pressure on the environment, but this may be due not so much to the "gentle" mode of wildlife treatment but rather to comparatively low economic activity levels. As compared with global averages, the country produces little carbon dioxide emissions per capita. However, there are still problems of urban pollution.

Table 6.2. Individual indicators of sustainability in CIS countries

Countries	Carbon dioxide emissions per capita (tonnes)	Urban pollution (mg/m ³)	Natural resource depletion (% of GNI)	Forested area (% area)
Azerbaijan	5,4	33	32,7	11,3
Armenia	1,8	69	0,5	9,5
Belarus	6,5	7	0,9	42,2
Kazakhstan	15,3	15	22,0	1,2
Kyrgyzstan	1,1	26	0,5	4,8
Moldova	1,3	36	0,2	11,5
Russia	12,1	16	14,5	49,4
Tajikistan	0,5	43	0,2	2,9
Turkmenistan	9,5	65	30,4	8,8
Uzbekistan	4,6	40	17,8	7,7
Ukraine	7,0	18	3,8	16,7

If population's levels of life satisfaction corresponds to world average indicators (4.4 according to ten-point scale), then satisfaction with measures to protect the environment also correspond to average levels (42.8 percent of the respondents). But there is a certain regularity - the higher the HDI, the higher the satisfaction of the population with life.

Table 6.3. Social indicators of sustainability in CIS countries

Countries	Overall satisfaction with life (score from 0 to 10)	Satisfaction with environmental protection (%)	HDI rating
Belarus	5,5	50,6	65
Russia	5,4	18,3	66
Kazakhstan	5,5	37,4	68
Ukraine	5,1	8,8	76
Armenia	4,4	27,8	86
Azerbaijan	4,2	28,1	91
Turkmenistan	6,6	0	102
Moldova	5,6	15,5	111
Uzbekistan	5,1	71,4	115
Kyrgyzstan	5,0	27,7	126
Tajikistan	4,4	42,8	127

In Tajikistan, integrated assessment of environmental and economic indicators has started. However there are information and methodological gaps which limit the access and comprehensiveness of national statistical reporting.

To promote the country's sustainable development and a «green» economy, there is need to focus on formation of corresponding statistical reporting. However, this requires quantification of the cost of the environmental degradation in monetary terms.



Conclusions and recommendations

CHAPTER 1. RESOURCE POTENTIAL OF THE REPUBLIC OF TAJIKISTAN AS THE BASIS FOR ACHIEVING MDGS AND DEVELOPMENT STRATEGIES

The positive dynamics of economic growth is fundamental to Tajikistan's socio-economic status. In general, the country's mid-term macroeconomic policy is focused on reducing inflation rates and maintaining high rates of economic growth in order to ensure higher levels of living standards.

The Government of the Republic of Tajikistan and the UN Country Team have consistently paid joint efforts to facilitate assessing progress towards achieving MDGs. The key strategy documents were adopted. During the last decade, the socio-economic development goals aiming to improve living standards and quality of life are reflected in the National Development Strategy until 2015 and sectoral and regional development programs.

Maintaining macroeconomic, social and political stability has in many ways contributed to a gradual reduction of poverty. The country has succeeded in reducing poverty levels from 81 percent in 1991 to 35.6 percent in 2013.

The national economy remains vulnerable to potential risks, including new macroeconomic shocks which became evident following the recent global financial crisis. This required assuming additional responsibilities for the national government to sustain current social indicators.

The key unresolved issues of economic restructuring are as follows:

- restoration of output volumes based on increased share of the mining industry, expansion of the export of raw materials in the context of a very slow technical development for most economic sectors and the economy's low internal and external competitiveness;

- financial instability of private companies for several industrial sectors, the continuing transfer of capital from the real sector into financial intermediation, as well as limited financial resources for the implementation of large-scale country-wide development programs.

In order to ensure accelerated economic growth and sustainable human development, it is necessary to:

- expand the foundations of economic growth through the development of the private sector and by encouraging private investment;
- provide assistance to the development of "energy infrastructure development corridors" as a system of complex infrastructure connections linking both the country's physical infrastructure (roads and railways, power transmission lines, etc.) with national institutional infrastructure.
- focus on mid-term growth factors: increase of household incomes and consumption, enhancing protections for private property and efficiency of state owned enterprises, improved government spending and increasing the country's export potential;
- provide incentives for long-term growth, including capital development and the efficient use of natural resources and production potential, implementation of technical solutions, building a "knowledge-driven" economy; improving the quality of labour resources and ensuring their efficient utilization.

CHAPTER 2. DEMOGRAPHIC TRENDS, EMPLOYMENT AND ACCESS TO JOBS

Since independence, Tajikistan's population has significantly changed its demographic behaviour acquiring new characteristics such as a reduced birth rate, increased migration, stabilization of mortality rates and gradual ageing of the population, etc.

There is an apparent trend for the next ten to twenty years: decrease in births, increase of the working age population and a gradual increase of the population of retirement and elderly (80 and older). Another current trend is the larger share of men as a percentage of the country's total population.

In terms of sectoral employment, agriculture and services prevail. As for regional employment, it is evident that:

- disparities between employment patterns in the regions are less pronounced as compared to other CIS countries.
- Agriculture dominates in all regions.
- However, well-marked differences in poverty levels suggest that employment statistics used as a basis for the republic's development patterns are not sufficiently transparent.

Unemployment was a critical issue in Tajikistan even during the Soviet era. Since then, the situation has been changing for the better, achieving a more acceptable employment level. However, the absolute number of unemployed and rate of unemployment have grown over the last decade.

A positive factor observed recently is a considerable reduction of long-term unemployment and shorter unemployment periods. It is worth mentioning some peculiarities pertaining to employment:

- There are considerable discrepancies between official statistics and other estimates;
- The percentage of women in terms of the overall number of unemployed is lower than the share of men;
- Youth is over-represented;
- A positive trend is the reduction of long-term unemployment.

Informal employment is widespread and is characterized by the following features:

- Difficult to measure due to variations in definitions;
- Informal employment is the most widespread form of employment in Tajikistan: only seventeen percent of all gainfully employed individuals benefit from an official employment contract;

- Labour migrants are not included into statistical estimates but one can assume that the overwhelming majority of migrants are not officially employed.

Considerable improvements have been recorded for some sections of the labour market, but many employment issues still exist, particularly the creation of a competitive labour market, better inclusion of women into the labour market, assigning an official status to informal employment, as well as the creation of jobs to provide employment for more young people.

This is why some of the scenarios proposed above can be used in the design and implementation of employment policy both within external and domestic labour markets.

CHAPTER 3. ACCESS TO INSTITUTIONAL RESOURCES FOR DEVELOPMENT

Globalization is increasing and challenges narrow national boundaries, leads to the creation of joint commodity markets, building of a global information network, establishment of intergovernmental alliances and international organizations. All this occurs against a background of uncertainty and instability of the global community, dynamic changes and multiple development options. The current scientific and technical revolution makes its own contribution especially for the sectors of information sciences and telecommunications. Considering the above, national policy makers focus their efforts on the following:

- increasing government efficiency and providing higher quality services to the population;
- developing public-private partnerships and better division of responsibilities to deal with emerging issues;
- networking between government and civil society, engaging communities in the management and administration of public affairs.

Administrative reforms directly and seriously affect national development, which can be positive or negative, depending on the selected strategies and methodologies.

As for the non-governmental sector:

- Develop national dialogue in building partnership and commissioning state social contract;
- Continue and expand at national, regional and local levels the holding of meetings, workshops, conferences to discuss the challenges of partnership and joint efforts pertaining to various development issues.
- Enhance the engagement of business community in joint development projects and programs. When engaged, businesses will increasingly be recognised as respected actors of meaningful social projects, thus expanding their scope of activity, and demonstrating social responsibility, all of which will contribute to their improved competitive ability and social importance.
- Begin the elaboration of the Partnership Code governing relationships between the public sector and Civil Society Organizations.

CHAPTER 4. ACCESS TO ECONOMIC RESOURCES AIMED AT INCREASING THE TAJIKISTAN'S POPULATION'S WELL-BEING

The development of the energy industry has a general stabilizing effect on a country's economy. It currently plays and will continue to play a key role in ensuring sustainable economic development. This is why Tajikistan's energy security is an essential factor in ensuring economic resilience both in the context of the development of the country's productive potential and in the context of livelihoods which is particularly important during the transition period.

The threats to Tajikistan's energy security are becoming one of the issues influencing economic resilience and national security. This is due to the increasing role of the energy sector within the national economy. The energy sector has been undergoing serious hardships recently and its position cannot be described as stable. A crisis in the energy sector, low demand in the domestic market, and limitations in terms of achieving its export potential do not contribute to a reliable sector which can respond to the economy's energy demand. In fact, the national energy sector is not able to ensure sustainable economic growth and support national energy security.

The economic environment for the functioning of the national power sector is currently still quite unstable and thus carries potential threats to Tajikistan's energy security. The country's GDP per unit of consumed energy resources is extremely low and represents 0.5 \$/kgoe, which is almost five times lower than the global average of 2.4 \$/kgoe. At the same time, Tajikistan's electricity consumption per capita (2,367 kWh) is almost nine times the consumption of low income countries (269 kWh/per capita) to which Tajikistan also belongs. This points out an extremely wasteful use of energy at national level and also provides evidence of the enormous potential for improving energy efficiency. Even if this consumption rate is raised to the global average, it can contribute to the considerable growth of the country's GDP and ensure its sustainable development.

The country's energy security depends on the distribution of energy resources across its territory. The country's complex topography virtually isolates the northern region and GBAO from the main energy generating facilities of the central south-western region and thus creates energy vulnerability.

The resource potential for securing the country's energy security is generally favourable. Most energy resources are renewable, and environmentally friendly hydropower sources and their potential greatly exceeds domestic demand. Meanwhile, conventional renewable energy sources, namely solar, wind, geothermal, bioenergy must be utilized in locations where favourable conditions exist for their efficient use.

One of the key approaches to addressing the problem of energy security is through the reduction of unpaid debts in the energy sector. If this issue is not resolved, the rehabilitation and innovative development of energy sector will be problematic.

The development of foreign economic ties in the electricity industry secures steady supply of foreign currency and compensates to a certain extent the negative consequences of insolvent demand on the domestic market. According to calculations, electricity and power generated by Tajik power plants are competitive and attractive. Consequently, there is good potential for international trade in the EurAsEC and Central Asian joint market.

Shifting the economy of Tajikistan towards energy conservation, improvement of tariff policies, integration with the CIS countries, and ensuring investment safety should become the priorities of the country's energy policy. It seems feasible to pursue a policy which would support the national idea of self-sustainability. As a consequence, this policy should focus on ensuring adequate living standards to sustain people's physiological needs and aim at retaining and enhancing eco-friendly attitudes. This will promote the prospect of reducing energy consumption as a provision of social services to the population as well as stimulate a better processing of natural resources used for the production of consumer products.

Central Asian countries are connected by a single unified communications system. This is why the significance of regional cooperation dramatically increases. This being said, Tajikistan's energy policy should provide for an enhanced integration of regional energy systems on the basis of mutually beneficial terms. Extending international and regional cooperation and implementing various projects for the development of alternative energy sources should become the focus of attention. To that end, new participants in the process (small producers) should be granted access to markets as this will facilitate the increased utilization of renewable energy sources and low and medium capacity cogeneration systems (ie systems for the combined generation of heat and electricity).

Usually, when referring to Tajikistan's hydropower, it means sales of electricity to the neighboring countries in the region. However, it should be noted that profits from energy trading always goes to the buyer. According to calculations, the income which could be earned using a unit of energy (calculated in terms of GDP) at domestic companies exceeds more than ten-fold the income from selling the same unit of energy to other countries. The income of the buying country possessing a better technological infrastructure for the processing of energy resources, exceeds the costs of buying energy more than twenty-fold.

Therefore, a conclusion could be drawn that direct sales of energy resources will damage Tajikistan's economy in three different ways: Firstly, through the non-utilization of energy resources for enhancing economic potential and creating new jobs in the country; indirectly through the stabilization of production in countries consuming energy resources, and directly from natural usage and damage to environmental systems which is

hard to calculate in monetary terms. Certainly, it does not mean that Tajikistan should not sell its energy resources. However, all possible options for the use of hydropower should be carefully calculated. Following proper technical assessments, a proper market should be created with effective governmental control and civic oversight. Tajikistan's hydropower resources can be a stabilizing factor in the region and become the cornerstone of sustainable economic development for Central Asian countries.

2. Free enterprise can certainly be considered as an underutilized economic resource in Tajikistan. Despite the available potential for development of the country based on private initiatives, it still remains unutilized due to a generally unfavourable business environment.

Reduction of administrative barriers hindering access to the market, improvement of the business environment and investment climate is one of the main paths to develop business activity and attract investments into the country. In addition, development of regional cooperation and integration into global trade are also of primary importance. Improved legislation and regulation pertaining to the private sector's business development will make Tajikistan more attractive for domestic and foreign investors.

Creating favourable economic relations is impossible without securing the rights of economic entities to property. The country's existing licensing system and permit issuance procedure are complicated, costly, time consuming, non-transparent, and not easily understandable for investors. This allows arbitrary interpretations, creates administrative barriers for the development of business and in general, does not meet the modern requirements. Therefore, counter-productive public control in this sector needs a full-scale and systematic revision.

3. In order to expand the use of ICT for Tajikistan's development, the following measures need to be taken into consideration:

- Stimulating the commitment of the government to the further development of a favourable legal and tax environment for a large-scale and country-wide implementation of ICT;
- Increase of investments into the telecommunications sector;
- Raising awareness in the regions of key participants of this process, ie local governments;

- Proactive attitude of secondary and higher education establishments of the country to the training of highly skilled personnel, which would be instrumental both in a wider Internet access and in the delivery of ICT services;
- Increase ICT's scientific potential;
- Promoting development of the local production of ICT goods, which in turn will lead to more affordable use of the ICT potential for the whole society, as well as rapid employment growth;
- Growth of electronic resources will lead to enhancement of e-service (e-business, e-commerce, e-medicine, e-education);
- Implementation of ICT in other industrial sectors.

4. As the government serves to improve the well-being of its population, Tajikistan's food security is a priority. Perhaps, due to the shortage of land and high costs of sustaining each hectare of irrigated land, the country should not aim at one hundred percent self-sufficiency in terms of food production. A part of food, primarily grains, can be imported. But this policy means that grain traders will have to buy food in the world market at market prices. Because of the rapid growth of biofuel production and an increased demand for it in the fast-growing economies, such as China and India, there is no reason to assume that world grain prices will considerably fall in the near future. Besides, import is not organized efficiently enough, and there is a possibility of failure to deliver.

Along with government support and encouraging the development of the national food sector, mechanisms need to be designed and formally put in place in order to improve the affordability and the quality of food, with the final objective of improving the health of the nation. To this end the following measures should be undertaken:

- Activities focused on building more transparent, competitive system of the food imports;
- Tax and customs exemptions for import of the basic food items;
- Introduce monitoring of conjuncture and prices at domestic and world markets, especially those that affect food markets in the country. The results of such monitoring should be made available to public on a daily basis;
- Develop food market infrastructure and enhance its availability for all agricultural sector manufacturers;
- Encouraging transition from the manufacturing of the "depersonalized" food towards manufacturing of domestic food products under the brand names that will raise the quality and increase the competitiveness of domestic manufacturers;
- Elaborate and adopt the Food Security Program of the Republic of Tajikistan;

Food safety is closely related with food security. In this regards it is essential:

- Start moving towards global food standards and global quality assurance systems in line with WTO requirements;
- Establish a single authorized state body to supervise safety of food products;
- In order to avoid conflict of interests, agencies in charge for development of standards shall be completely separated from agencies in charge of supervision of such standards;
- Strengthen quality control of goods in the markets. Control should be mandatory and free of charge.
- Develop policy for import regulation, as well as use and consumption of GMOs

5. Financial intermediation remains underdeveloped, and the financial system, all over Tajikistan, still remains vulnerable to future shocks.

The stock market in Tajikistan is in an embryonic state and, therefore, has not yet begun to fulfill its macroeconomic function of transforming savings into investments.

Remittances of Tajik migrant workers are a kind of "engine" of demand and imports. The results of studies of external labor migration and remittances convincingly prove substantial dependence of wealth of Tajik household on remittances, as well as that remittances are mainly used for current consumption (mainly imported goods).

6. In order to promote trade integration and gain maximum effect it is necessary to:
- reduce trading costs;
 - improve transport infrastructure;
 - modernize border management;
 - invest into increasing efficiency of small producers and businessmen to reduce poverty;
 - implement strategic management of migration flows and remittances;
 - develop integration processes with due account for sustainable human development.

CHAPTER 5. ACCESS TO SOCIAL SERVICES IN TAJIKISTAN

Thus far, no reduction of general disease incidence has recently been observed in Tajikistan. For such categories as communicable diseases, the increase as compared to 2008 levels is 1.6 percent while for malignant neoplasms the increase stands at almost thirty two percent etc.

The “double burden of disease” is still typical for the country, i.e. along with infectious diseases, other non-communicable diseases are wide-spread. But the increase in disease incidence can be attributed to improved quality and capabilities of diagnostic agents. In this regard, the development of health technologies increases the burden on the health care system. Raising living standards, advancement of health technologies, increases in ageing population numbers and the population’s growing expectations cause a higher demand for healthcare. In the context of insufficient public funding, these realities further aggravate financial risks pertaining to the provision and access to health services.

The necessity of structural reforms of the health care system have invariably been raised in the government’s policy documents. In particular, a shift from inpatient treatment to outpatient modalities should be considered while the development of the concept of general practice and general practitioners to replace primary care physicians and paediatricians should also be envisioned. Furthermore, financial reforms for this sector are also planned.

2. To ensure improved access to professional education, the following actions should be taken:

- increase in the number of primary and secondary vocational education establishments in rural areas;
- improve the system of sponsored scholarships for children showing good academic progress in order to purchase textbooks and course materials;
- design and establish a system which will offer paid internships at relevant companies during summer vacations for students of primary and secondary vocational education establishments;
- elaborate a practice of providing scholarships from companies and other sponsors for the most talented students who pay for their studies;

- more broadly engage students in paid scientific research performed by higher educational establishments and research projects;
- continue pay increases for teachers of all levels of the education system in order to enhance the profession’s standing and impose stricter requirements on individuals who choose teaching as their profession;
- create a system of incentives to engage leading education practitioners, especially for such subjects as economy (economy, finance, accounting, etc.), management (industrial management, marketing, etc.), law, and engineering;
- raise the prestige of education and provide employment opportunities at leading organizations and companies for the best students.

3. A package of social programs is currently being implemented. The largest program aims to compensate the costs of electricity and gas for the population and the second largest program is designed for families in need whose children attend school.

Institutional problems with regards to the implementation of two welfare programs consist of a lack of cooperation and coordination of activities between agencies with no clear division of responsibilities. The existing system lacks effective mechanisms for targeting, financial control, audit and monitoring.

4. Overcoming regional differences in the long term could be achieved through general economic growth and the growth in particular of the poorer and more remote regions. By encouraging, first and foremost local efforts, regional policy can use instruments of country-wide support which should be provided on clear terms and facilitate the attainment of the desired socio-economic targets.

At the same time, in the context of administrative reform and focus on governance decentralization, it is necessary to assist the accelerated development of the country’s less successful regions and thus close the development gap existing with other more advanced regions. Furthermore, without a special program of incentives and support, regional differences can even be aggravated. In this context, the design of an individual development strategy for each region becomes a necessity and increasingly acquires significance.

In coordination with the design of a development strategy, each region needs a package of country-wide measures. Furthermore, the implementation of a policy to equalize the regions implies research into a system of regional classification with further disaggregation up to village level. This will facilitate the targeted nature of selective state support measures as part of the implementation of regional economic policy.

CHAPTER 6. ACCESS TO NATURAL RESOURCES

The Government has adopted and is going to adopt legislative and regulatory acts aiming to improve the access of the population to natural resources, the coordination of nature conservation activities and government inspections to promote the protection and use of natural resources.

In addition, an urgent shortage of funding, poor law enforcement, and lack of inter-agency cooperation result in slow implementation of decisions which does not contribute to a better access of citizens to natural resources, nor does it stabilize the environment or promote sound environmental management.

The state of land resources is still unsatisfactory. Due to erosion, salinization and paludification, the area of arable land has reduced by 3.2 percent since 1997. Thus, annually more than 5,000 hectares of irrigated land are not cultivated. The inability of commercial entities to restore and maintain land reclamation, waterworks, erosion and mudflow protection structures causes the deterioration of soils and thus reduces their fertility. This, in turn, hampers the population's access to land resources. The population's high growth rates (up to two percent annually) are creating conditions for future problems related to the reduction of per capita land area, increased human pressure on mountainside territories, loss of forests and biodiversity.

While being the major water supplier for Central Asia, Tajikistan suffers a shortage of water resources due to their uneven distribution over the territory. Hence, this causes high electricity and operating costs for drill holes and pumping stations to lift and transport water to irrigated fields.

The implementation of state-of-the-art methods of water management is still quite problematic and complicates people's access to water resources. The wear and tear of irrigation and drainage systems results in excessive water consumption.

Water treatment and access to clean potable water is one of the country's burning social issues. Domestic water consumption in various regions of the country varies from 400 to 1,400 litres a day which is twice the country's consumption norm and represents multiple times the European norms. However, this does not mean that the population consumes pure water according to standards. Fifty-seven per cent of the country's population consumes tap water (conditionally purified) and the rest take water from open sources. Fifty per cent wear of wastewater treatment plants combined with low levels of financing resulted in only about ten percent of water in the water supply network undergoes purification.

Road transport remains the primary source of air contamination and accounts for over seventy percent of all pollutant emissions. However, emissions from manufacturing plants and other stationary sources were considerably reduced due to declines in production and in some cases the shutdown of plants. The currently observed trends of industrial production and growth lead one to assume that an increase of emissions will take place in the future as virtually no sectors of economy address the problems of efficient dust and gas cleaning, as well as emission reductions.

All these factors along with other negative impacts suggest environmental degradation in the near future, particularly the biodiversity within species and between ecosystems.

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