



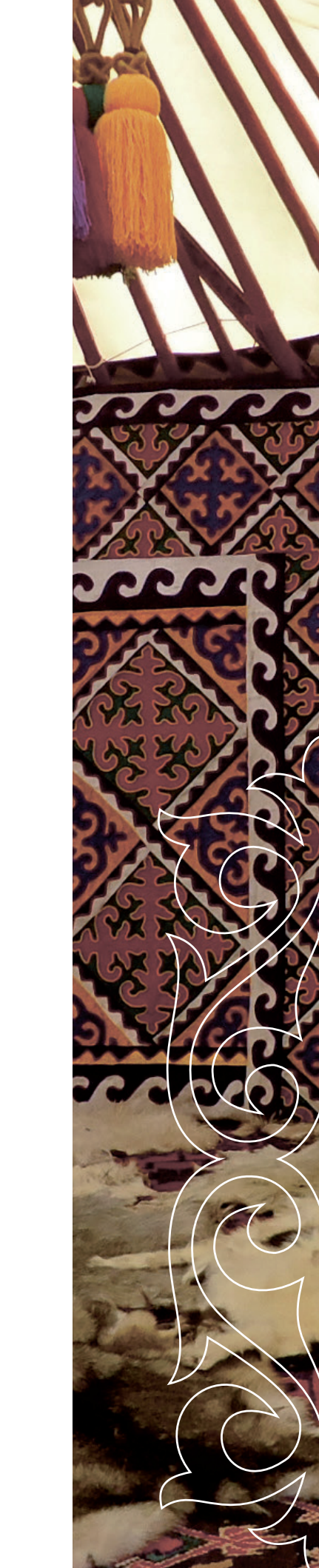
Empowered lives.
Resilient nations.



National Human
Development Report

Trade and Human Development in Kyrgyzstan

BISHKEK 2016



The work of the design studio Hara-Bara, participants of the contest among illustrators and designers to develop the cover and a single visual style of the National Human Development Report “Trade and Human Development in the Kyrgyz Republic” conducted by UNDP in Kyrgyzstan in 2016, was taken as the cover and the overall design of the Report.

The photo made during the first World Nomadic Games in the Semenov Gorge at the Kyrchyn Jailoo, Issyk-Kul Oblast, Kyrgyzstan, was used as the cover. Vladislav USHAKOV is the author.

The information campaign to promote the National Human Development Report in the Kyrgyz Republic has begun in 2015 and will be continued, including TV and radio broadcasts, articles and presentations.

This report, printed in Kyrgyz, Russian and English, is an instrument to spread the human development concept throughout the Kyrgyz Republic and around the world.

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The analysis and recommendations of this Report do not necessarily reflect the views of the United Nations, UNDP, its programmes / projects or the Government of the Kyrgyz Republic. The report is an independent publication, prepared with the support of UNDP. Scientific researches and preparation of the Report are the result of joint efforts of the team of authors, experts and consultants, as well as the results of discussions made during its preparation with the representatives of state bodies at the national and regional levels, non-governmental organizations, local governments, local communities and the media.

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Resilient nations.*

National human development report

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УДК
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Т

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ABBREVIATIONS

ACRE	Actual Current Rate of Exchange
APEC	Asia-Pacific Economic Cooperation
API	Air Pollution Index
ASML	Annual Survey at the Ministerial Level
BEEPS	Business Environment and Enterprise Performance Survey
CAC	Central Asian Cooperation
CADII	Central Agency for Development, Investment and Innovations
CAREC	Central Asia Regional Economic Cooperation
CIS	Commonwealth of Independent States
CIS EDB	Centre for Integration Studies of Eurasian Development Bank
CPMM	Corridor Performance Measurement and Monitoring
EAEU	Eurasian Economic Union
ECOSOC	UN Economic and Social Council
EEC	Eurasian Economic Commission
EHDI	Extended Human Development Index
FA	Far Abroad
FEA	Foreign Economic Activity
FEACN	Foreign Economic Activity Commodity Nomenclature
FIAS	Foreign Investment Advisory Service
GDP	Gross Domestic Product
GHA	Global Hectares
GNI	Gross National Income
GII	Gender Inequality Index
GRI	Gender-Related Index
GRP	Gross Regional Product
HDI	Human Development Index
IAHDI	Inequality Adjusted Human Development Index
ICT	Information and Communication Technologies
IFC	International Finance Corporation
IPA	Investment Promotion Agency
KGS	Kyrgyzstani Som
LSGA	Local Self-Government Authorities
MAPS	Mainstreaming, Acceleration and Policy Support
MDG	Millennium Development Goals
ME	Ministry of Economy
MES	Ministry of Emergency Situations
MIGA	Multilateral Investment Guarantee Agency

MMEC	Measurement and Monitoring of Efficiency of Corridors
MPI	Multidimensional Poverty Index
NAT	National Admissions Test
NBKR	National Bank of the Kyrgyz Republic
NGO	Non-Governmental Organization
NISS	National Institute for Strategic Studies
NSC	National Statistical Committee
NSSD	National Strategy for Sustainable Development
NVP	National Voluntary Presentation
ODS	Ozone-Depleting Substance
OECD	Organisation for Economic Co-operation and Development
PCI	Population Confidence Index
PISA	Programme for International Student Assessment
POP	Persistent Organic Pollutants
PPP	Purchasing Power Parity
PTSD	Programme of Transition to Sustainable Development
RCA	Revealed Comparative Advantage
RIA	Regulatory Impact Assessment
RKDF	Russian-Kyrgyz Development Fund
RLA	Regulatory Legal Act
SDG	Sustainable Development Goals
SIETS	State Inspectorate for Ecological and Technical Safety
SME	Small and Medium Enterprises
SPC	Sustainable Production and Consumption
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally
SWIS	Single Window Information System
UAE	United Arab Emirates
UN	United Nations
UN/CEFAT	United Nations Centre for Trade Facilitation and Electronic Business
UNDP	United Nations Development Programme
USA	United States of America
USSR	Union of Soviet Socialistic Republics
WCBI	Women's Capacity Building Index
WTO	World Trade Organization
WWF	World Wildlife Fund



INTRODUCTION

Kyrgyzstan is one of the first Central Asian countries having expressed commitment to the sustainable development goals. It is confirmed by development and adoption of the National Sustainable Development Strategy of the Kyrgyz Republic for 2013-2017 to be implemented in 2017. Trade was identified as an area promoting sustainable development at the Rio+20 Summit in 2012, when formulating the basic principles of sustainable development.

The importance of trade in the economic development of our country cannot be overstated. This is one of the largest and fast growing sectors of the Kyrgyz Republic. The share of trade and services in gross domestic product exceeds 19%. The whole population of the country is involved in this field of activity either as buyers or as sellers. As a source of cash inflow, trade contributes to the financial stability of the regions and creates conditions for social sphere development: health, education, culture and sport. Development of trade has a stimulating effect on small business development. Trade can promote human development by increasing GDP and providing opportunities to generate income and create new jobs, especially for the vulnerable population strata.

This report considers interaction of trade and human development in the Kyrgyz Republic through the impact of trade on its main components: education, health, social inequality and ecology. This document provides a detailed overview of the current situation of human development and trade in the Kyrgyz Republic based on the analysis of the diverse and complex interrelationship between them. The tendencies of integration processes' development and their influence on trade and human development in Kyrgyzstan are considered. It is worth pointing out that the report, unlike similar works, considers not only external but also domestic trade and its impact on human development.

In general, this analytical document is a good basis for decision-making in the field of trade to promote human development, which ultimately shall ensure sustainable development of our country in the XXI century.



Arzybek Kozhoshev
Minister of Economy
of the Kyrgyz Republic

«We acknowledge also the importance of the regional and subregional dimensions, regional economic integration and interconnectivity in sustainable development. Regional and subregional frameworks can facilitate the effective translation of sustainable development policies into concrete action at the national level».

Transforming our world:
the 2030 Agenda for Sustainable Development.
UN General Assembly Resolution adopted on
September 25, 2015 (A/RES/70/1)

«The Kyrgyz economy should become an independent and in the meantime a balanced component of the regional and global economy. It is important to understand that the priority economy sectors will bring tangible benefit to the people of Kyrgyzstan only when their products and services are in demand, competitive and recognizable in other countries, primarily in the neighboring countries and countries of the Customs Union».

National Sustainable Development
Strategy of the Kyrgyz Republic
for 2013-2017.
Approved by the Decree of the President
of the Kyrgyz Republic No. 11 as of
January 21, 2013.



The year of 2017 is the 25th anniversary of cooperation between the United Nations, United Nations Development Program and the Kyrgyz Republic.

Over the past quarter of a century, our close partnership with all government institutions at the national, regional and local levels, with representatives of civil society, non-governmental organizations, academic world and expert community, business associations and non-governmental organizations, with international partners has made a recognized contribution to comprehensive reforms implemented in the Kyrgyz Republic, overcoming the impact of internal and external challenges and risks, promoting sustainable development and increase of living standards.



We have been actively contributing to implement the National Sustainable Development Strategy of the Kyrgyz Republic for 2013-2017, other national strategies and programmes, to achieve the indicators and development goals coordinated at the international level.

Currently, the UN and UNDP system are working to prepare for the next five-year programme cycle 2018-2022. The projects of the Development Assistance Framework in the Kyrgyz Republic are being developed by the United Nations System (UNDAF), the UNDP Country Programme Document for 2018-2022.

The UN and UNDP system in the Kyrgyz Republic fully coordinated its programme with the objectives and programme cycle of key national strategies and programmes. This allows not only to fully taking into account the national priorities of the country and the international commitments undertaken by Kyrgyzstan in the field of sustainable development, but also creates a good basis to attract the required resources for achieving the target goals.

The important component of the UNDP work is to provide analytical, expert support, to increase professional potential in the most priority areas of sustainable development for the country. It enables to develop the most appropriate policy measures and ensure their effective implementation. Preparation of human development reports has been and remains an important contribution of UNDP at the global and national levels to a comprehensive understanding of specific problems, their impact on the human and peoples of the world. These studies and the analysis of universal and methodologically grounded indicators always provide a good basis to search for new mechanisms to support sustainable development and develop policy solutions in various fields.

The twelfth National Human Development Report in the Kyrgyz Republic, brought to your attention, has been prepared by an independent group of professional experts with the assistance of UNDP. The choice of the topic dedicated to human development and trade, the process of developing and discussing the results of the Report were conducted based on extensive consultations with national partners, including at the local level. During the work the authors used modern methodological developments, impressive national and international statistics, opinions of a wide range of experts, and also the interviews with the people directly related to trade relations in the broadest aspect.

The fundamental principle during the Report development was that the Human, his interests and essential needs were at the center of all development processes. The team of authors traditionally introduces innovative and experimental methodological techniques and methods to evaluate and interpret the results obtained in the process of report preparation.

The “Trade and Human Development in the Kyrgyz Republic” Report aims at raising public awareness, informing on the importance of the links between trade and various aspects of human development. We are confident that the Report will serve as a platform for further dialogue on trade and sustainable human development links and a useful resource in developing a strategy to implement Sustainable Development Goals in the Kyrgyz Republic adopted by the world community in 2015.

I would like to note that the Kyrgyz Republic, alongside with other countries, took an active part in forming a new global Development Agenda and 17 Sustainable Development Goals for the period until 2030. In the new Development Agenda, trade and assistance in trade promoting play an important role in fighting against poverty and in achieving a number of sustainable development indicators. For example, efforts to promote trade are important for achieving Goal No. 8 “Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”. It takes into account such important areas as economic diversification, creation of value chains, innovation and sustainable tourism.

The Report is directly related to persistent efforts undertaken by the Kyrgyz Republic to expand trade and economic cooperation with the countries of the region, including within the framework of the EAEU, WTO, considering cardinal interests of Kyrgyzstan. I am sure, it will contribute to national long-term and medium-term strategies and programmes for sustainable development and social welfare of the country being developed at the moment.

In conclusion, I express my deep gratitude to the Report authors, representatives of the Ministry of Economy, National Statistics Committee, other ministries and departments of the Kyrgyz Republic, non-governmental organizations, experts, international organizations, who supported in preparing this Report.

I hope it will be interesting and useful for professionals and a wide range of readers.

Alexander Avanesov
Resident Coordinator of the UN system,
UNDP Resident Representative
in the Kyrgyz Republic



INTRODUCTION

This National Human Development Report examines the interaction between trade and human development in the Kyrgyz Republic. The role of trade for economic development has been emphasized in many studies related to domestic and foreign trade. However, the role of this sector of the economy in human development in the Kyrgyz Republic has been studied to a far lesser extent.

In spite of the fact that trade issues are immensely urgent for Kyrgyzstan and for the work of the United Nations Development Programme (UNDP) in the country, just a few attempts have been made to establish the direct connection between trade issues and difficulties in achieving progress in sustainable human development. The first attempt was made in the UNDP 2005 Central Asia Human Development Report¹ which accentuated potential benefits of strengthening regional integration for representatives of small enterprises, including by means of trade. Not long ago UNDP in its 2014 Regional Central Asia Trade and Human Development Report presented the updated analysis of actual and potential influence of trade on the achievement of the human development goals in the Central Asian countries.

This National Report is focused on conclusions of the Regional Report and attempts to expand upon these conclusions with reference to the national context. At the same time it introduces a number of new aspects when considering the interaction between trade, human development and the environment.

The development of this Report follows the following primary objectives:

- to study the current situation on human development and trade in the Kyrgyz Republic based on an analysis of a whole range of qualitative and quantitative data and information, including an examination of gaps in each aspect of trade and human development;
- to build a common platform for discussion and solution of issues related to interaction between trade and human development;
- to determine the trends of development of integration processes and to analyse their influence on trade and human development in Kyrgyzstan;
- to elaborate provisions which could make a basis for taking measures of policy and programmes for promotion of human development.

During the preparation of this Report focus groups in each oblast of the country were conducted. Focus group participants were entrepreneurs, vulnerable social groups (women, youth, migrants), local self-government authorities, non-governmental organizations (NGOs), public authorities, associations of women-entrepreneurs, international organizations working on protection of rights of vulnerable social groups, and others. The results of these focus group discussions have made the basis for this Report.

The structure of this Report is described below. The first chapter provides a survey of human development indices and their dynamics in the Kyrgyz Republic. At the same time the most significant indicators which characterize certain human development components are reviewed. An important issues considered in the first section is an analysis of the inclusion of human development approaches taking into account the MDGs and SDGs into strategic documents of the country development. The next section describes the interaction between trade and human development, and provides insight into certain evaluation approaches of the influence of trade on human development. In order to avoid detailed theoretical discussion the section reviews various cases which provide practical examples of interaction between trade and development.

¹ Future without Barriers: Regional Cooperation in the Area of Human Development and Human Security Provision. Central Asia Human Development Report. – Regional UNDP Bureau for Europe and the Commonwealth of Independent States, 2005.

The third section demonstrates that institutions lay the foundation for both economic and human development, and provides an evaluation of quality of these institutions in the Kyrgyz Republic especially in the sectors directly related to trade and human development. On the whole, it is necessary to emphasize that not only trade and various aspects of human development but also institutional aspects of development run through the entire Report.

The second chapter is wholly dedicated to both domestic and foreign trade. Development of trade plays one of the most important roles in this process by creating primary stimuli to economic growth which then transforms into investment in human capital assets and dynamic human development. This chapter considers specific aspects of Kyrgyzstan's economic development and the special compensating "anti-crisis" role of trade. A separate section considers domestic trade, its unique contribution to human development in contrast other approaches that analyze only the role of foreign trade in development. The openness of the Kyrgyz economy and serious changes in the foreign economic policy of the country simultaneously dictate the necessity to consider the problems and tariff and non-tariff barriers in the way of exports, in the first place. Limitations in development of institutions which promote export are considered as a significant part of a range of problem in the foreign trade.

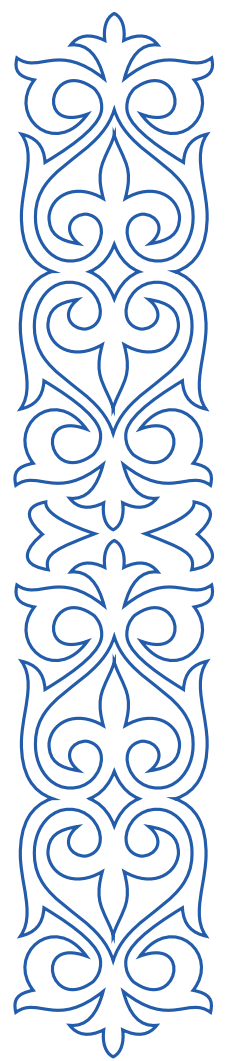
The third chapter emphasizes that society, the environment and trade are not isolated from each other and there are significant multilateral relations between them. The increasing share of growth of ecological damage is due to both international and domestic trade which makes it one of the causes of changes in the environment. The first section of the chapter reviews types of physical and economic impact on the environment and development, and gives examples of results of such impact. The dynamics of foreign trade in environmentally friendly products and green technologies, as well as reasons for the absence of prioritization of these areas in trade are separately considered. The third chapter finishes with an analysis of institutional limitations on the way of increasing effectiveness of interaction between trade and ecological development as a component of human development.

This National Report is not a strictly a scientific report. It is based on existing reports submitted by donors, government authorities and non-government organizations trying to summarize certain views in these documents and supplementing those with conclusions of a group of national consultants. The authors of this Report have had a task to create an analytical document which could be of interest to politicians at all levels, civil society organizations (including organizations which represent interests of vulnerable social groups), representatives of the private sector, and the international community to provide an impact on their programmes, technical support and assistance in improvement of human development in the Kyrgyz Republic.



CHAPTER 1

TRADE IS A SOURCE OF HUMAN DEVELOPMENT OPPORTUNITIES



CHAPTER 1. TRADE IS A SOURCE OF HUMAN DEVELOPMENT OPPORTUNITIES

1.1. Trends in Human Development

According to the 2014 Global Human Development Report Kyrgyzstan ranked 120 out of 188 countries in the Human Development Index (HDI) rating with a value of 0.655. This was the next to last position in the rating among the countries of Central Asia and Eurasian Economic Union (EAEU), only Tajikistan with an HDI value of 0.624 was below Kyrgyzstan. Russia and Belarus were the region's leaders, they jointly ranked 50 in the rating with the HDI value of 0.798 (see Figure 1.1.).

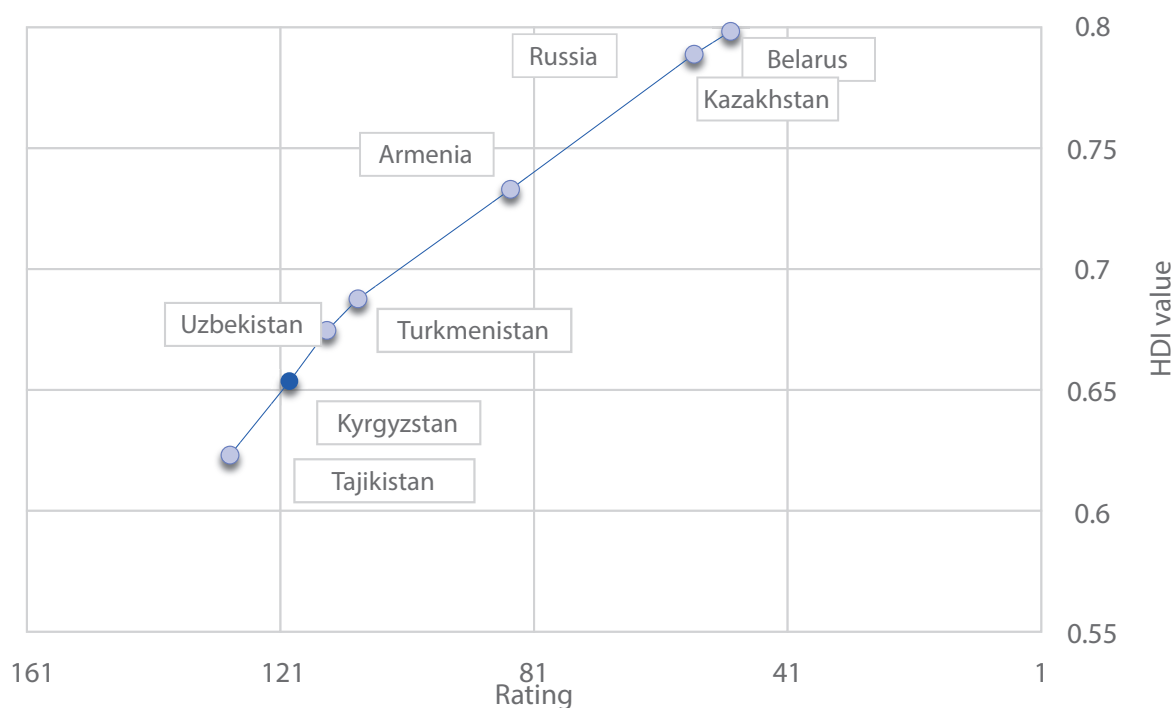


Figure 1.1. HDI Values in the Countries of Central Asia and EAEU in 2014

Source: Human Development Report, 2015

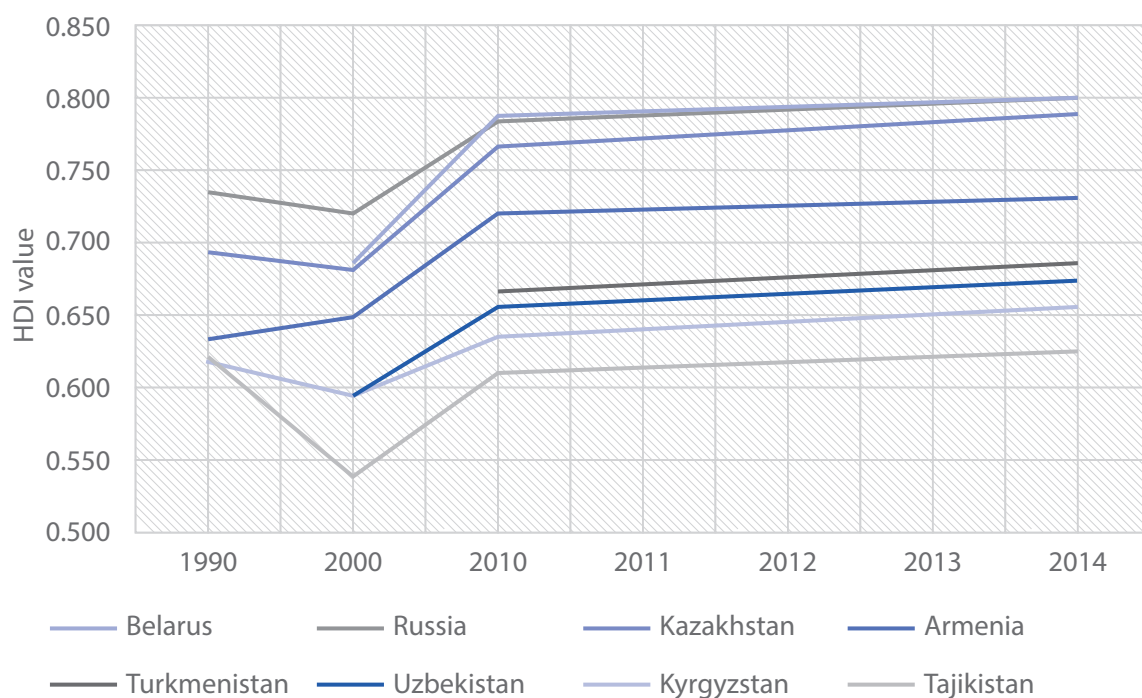


Figure 1.2. HDI Dynamics in the Countries of Central Asia and EAEU

Source: Human Development Report, 2015

It is worth noting that since publishing of the last National Report on Human Development in Kyrgyzstan,² there has been a positive growth of human development index in nearly all countries of Central Asia and EAEU (see Figure 1.2). The period of achievement for the Millennium Development Goals (MDGs) was almost over and the process of transition to the Sustainable Development Goals (SDGs) had already started. Human development issues were becoming more and more popular and became a part of the strategic agenda of development of the countries. Thus, it was noted in the 2015 Human Development Report that during the period from 2010 to 2014 the growth of the human development index among the countries of the given region ranged from 0.39 per cent to 0.84 per cent per year, and Kyrgyzstan was the leader – the index value rose by 0.8 per cent on average every year. If we look at the dynamics of HDI components from 2013 to 2014, improvement was observed in 80 per cent of values of the components. Such growth was seen not only in values of the income index; the highest growth was notable on values of the average duration of study and life expectancy. Table 1.1 shows the analysis of positive and negative changes in the HDI components in 2014 in the countries of the EAEU and Central Asia compared to 2013.

Table 1.1. Change in the HDI Components of Countries in 2014

Country	Life expectancy	Average duration of study	Expected duration of study	GNI per capita according to PPP
Belarus	+	+	+	+
Russia	+	+	+	+
Kazakhstan	+	+	–	+
Armenia	+	+	+	+
Turkmenistan	+	0	–	+
Uzbekistan	–	+	–	+
Kyrgyzstan	+	+	–	+
Tajikistan	+	+	–	+

Note: “+” – growth of the HDI component value, “0” – values remained at the level of the previous year, “–” – decrease of the HDI component value. Source: 2015 Human Development Report.

Individual attention should be paid to the analysis of the human development index corrected with consideration for inequality in education, healthcare and income distribution and shows the per cent of losses in the human development index due to inequality. So, in 2014 the HDI value for Kyrgyzstan was 0.560 and due to inequality Kyrgyzstan lost 14.5 per cent in the HDI value which was one of the largest losses for the countries of the region. The fewest losses due to inequality were observed in Belarus (-7.1 per cent), Armenia (-10.2 per cent) and Russia (-10.5 per cent). The issues of monetary inequality in Kyrgyzstan are considered in more detail further in this chapter.

The Gender Inequality Index (GII) which takes into account gender inequality in education, healthcare, political and economic participation. Kyrgyzstan ranked relatively high in the world rating (the 67th rank with a GII value of 0.353) but it was behind majority of the countries of Central Asia and EAEU (see Table 1.2.) The least significant gender inequality was noted in Belarus (GII value of 0.151) while the highest inequality value was reported in Tajikistan (GII value of 0.357).

Table 1.2. HDI and GII Values in the Countries of Central Asia and EAEU in 2014

Country	HDI		Gini coefficient value on income, %*	GII	
	Value	Per cent of losses in HDI due to inequality (%)		Value	Position in the global rating
Belarus	0,741	7,1	27,5	0,151	31
Russia	0,714	10,5	39,7	0,276	54
Kazakhstan	0,694	11,9	27,8	0,267	52
Armenia	0,658	10,2	37,3	0,318	62
Turkmenistan
Uzbekistan	0,569	15,8	28
Kyrgyzstan	0,560	14,5	42,9	0,353	67
Tajikistan	0,515	17,5	29	0,357	69

Source: 2015 Human Development Report.

Note: * Data have been obtained from official websites of national statistical authorities

On the whole, the analysis of human development indices in the region showed that there is a positive trend in human development. In addition, there are countries for which economic growth is most important for human development, and these are mainly the countries exporting energy resources. For Russia, Kazakhstan and Turkmenistan, the income rating is higher³ than the human development rating, while for the other countries the human development rating is higher than the income rating. Thus, Kyrgyzstan has higher positions in social development, but it loses places in the rankings due to low economic development and deepening of social inequality (if economic development is not taken into account Kyrgyzstan ranks second in the region following Kazakhstan only, while with consideration for economic values it ranks next to last among the Central Asian countries in the rating).

As part of preparation of this National Human Development Report, the National Statistical Committee carried out its own calculation of human development index values for the Kyrgyz Republic. Figure 1.3. shows the dynamics of the HDI and its components.

3 It means the rating on the income component of the human development index increases faster than on the education and life expectancy components.

Box 1.1. Differences in the National and Global HDI Values

National HDI values calculated by the NSC are different from the HDI values calculated at the global level. As a result, the national HDI values are 7 per cent higher than the values presented in the 2015 Human Development Report.

	2010	2011	2012	2013	2014
HDI (2015 Human Development Report)	0,634	0,639	0,645	0,652	0,655
HDI (NSC)	0,677	0,686	0,688	0,697	0,700

Such differences can be explained by variations in the methodologies of calculation of index values (a detailed description of the methodology of calculation of the national HDI value is given in the Statistical Appendix). This includes:

1. *The calculation of the income index published in the Global Human Development Report is carried out based on the Gross National Income (GNI on purchasing power parity – PPP – in fixed prices) of the countries. The calculation of the national HDI value in Kyrgyzstan uses the Gross Domestic Product (GDP on PPP in current prices). This is because the main task is to calculate the HDI values for the oblasts which do not involve calculation of the Gross National Income for the regions, it is based on calculation of the Gross Regional Product (GRP on PPP in current prices). As a consequence the GDP on PPP per capita is higher than the GNI, and results in the higher value of the index.*

2. *The calculation of the level of educational attainment in Kyrgyzstan is still based on the methodology which the NSC used for preparation of previous reports where two components were taken for calculation of the index: the level of literacy of the population and the indicator of the cumulative share of students attending primary, secondary and higher educational institutions. It is considered that this index better reflects the education level in the country. The indicator of the average duration of study used in the global methodology is usually less dynamic, while the indicator of the share of students allows catching the trend better.*

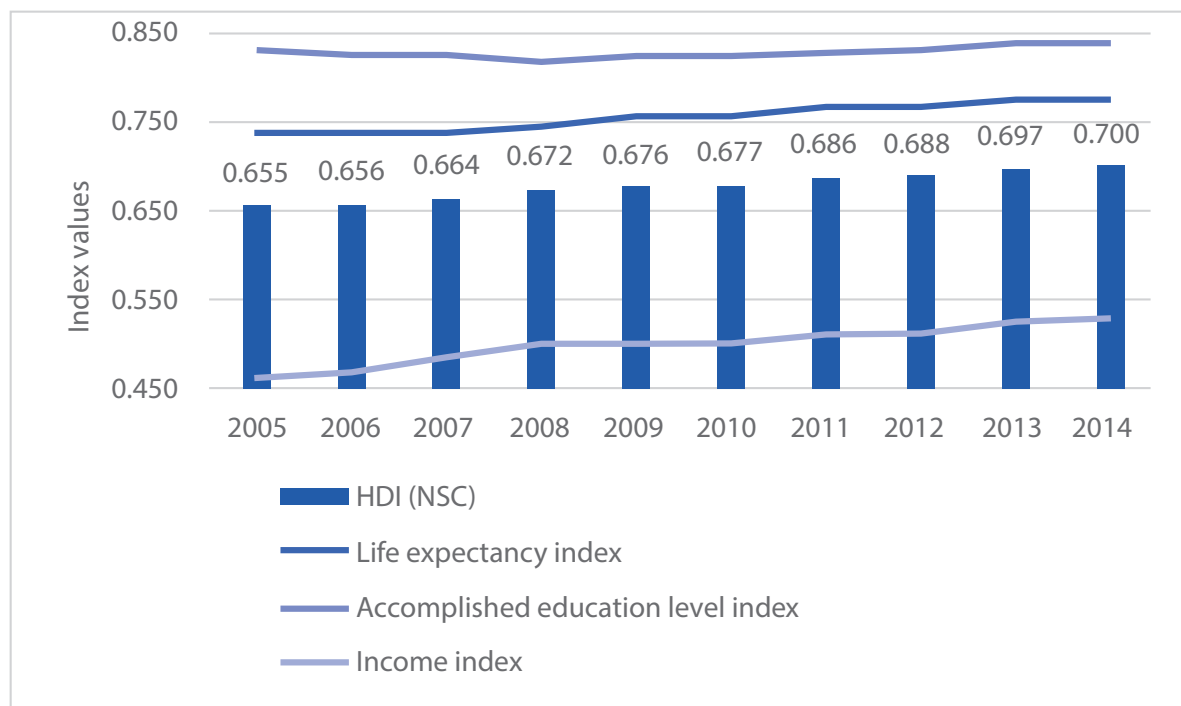


Figure 1.3. Dynamics of the HDI and its components in the Kyrgyz Republic

Source: Calculations of the National Statistical Committee

In addition to the trends described above, the national HDI value has demonstrated a positive trend since 2005. During the past ten years the HDI value has increased from 0.655 to 0.700 and was accompanied by the growth of all human development components. It is also worth mentioning that the highest growth rates were the income index which during the past ten years increased from 0.461 to 0.529 compared to the relatively slow dynamics of the life expectancy index and the level of educational attainment. Calculation of HDI at the national level allows calculating the HDI values of the oblasts, and this dynamics is shown in Figure 1.4.

According to Figure 1.4., the trend of increasing the level of human development has been noted in all regions. However, during 2011 and 2012 this level slightly dropped due to a number of economic and political reasons. On the whole, if we speak about all the regions the differences in the human development level are in many ways predetermined with the level of economic development of the oblasts. As Figure 1.5. shows, the values of the gross regional product on PPP vary considerably between the oblasts. The value of Bishkek is significantly higher than the levels of the country and the oblasts. Issyk-Kul Oblast where the GRP per capita is higher than the average country level stands apart, then Chui and Talas Oblasts follow. All the southern oblasts and Naryn Oblast are the poorest.

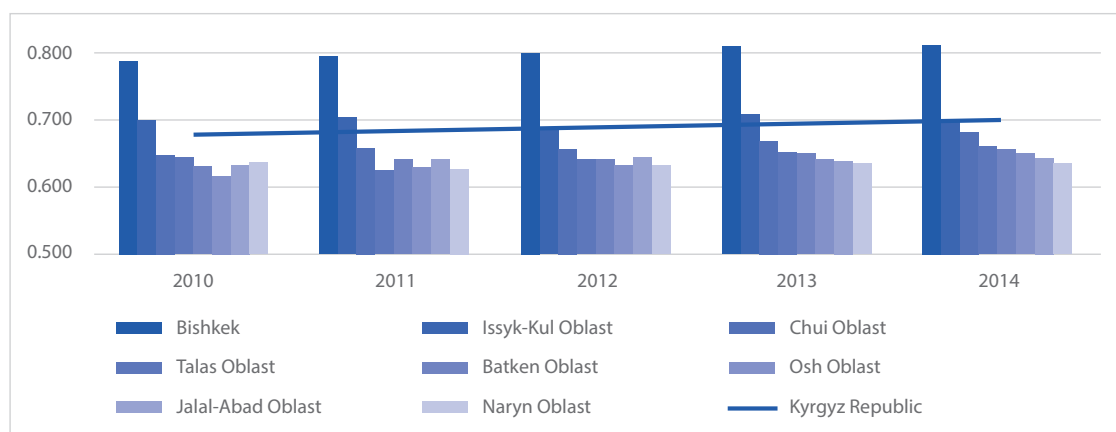


Figure 1.4. HDI Dynamics in Oblasts of the Kyrgyz Republic

Source: Calculations of the National Statistical Committee

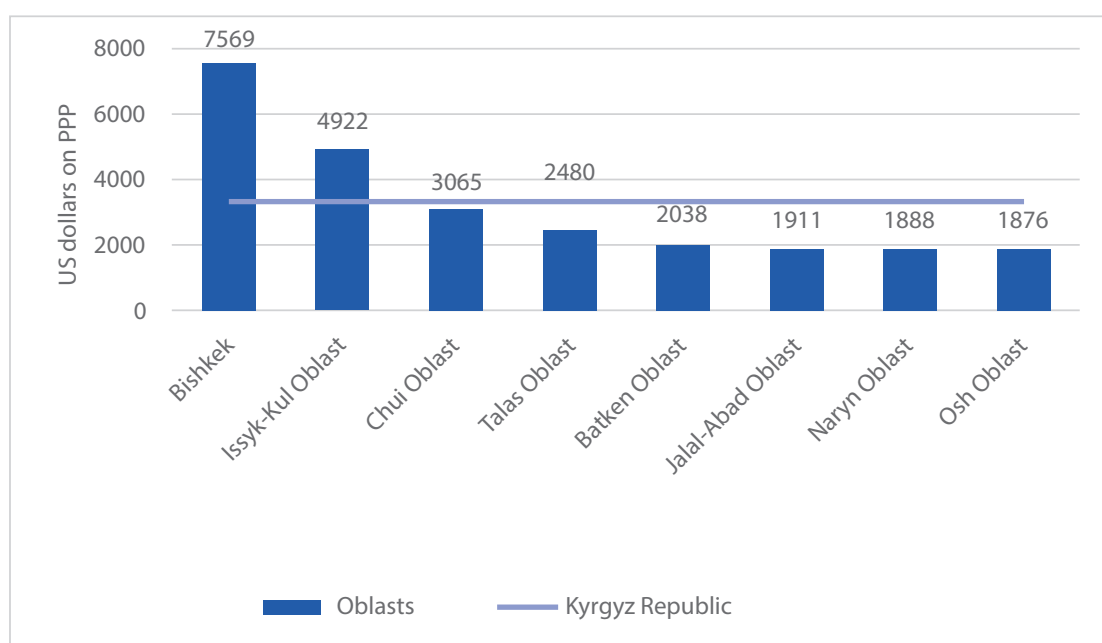


Figure 1.5. Gross Regional Product per Capita in 2014, US Dollars on PPP

Source: Calculations of the National Statistical Committee

On the whole, the analysis of the HDI and its components by oblasts⁴ has allowed making a few interesting conclusions related to 2014:

- there is a noticeable gap in values of human and economic development between Bishkek and other oblasts. At every value Bishkek ranks first and leaves all oblasts behind.

In terms of oblasts:

- the highest level of human development is observed in Issyk-Kul Oblast (it is even higher than the country level), the HDI value here is 0.701; however, Issyk-Kul Oblast is the only oblast where the HDI value has dropped compared to the value of 2013 (0.706);
- the lowest level of human development is observed in Naryn Oblast, the HDI value there is 0.634;
- the highest life expectancy index value is observed in Jalal-Abad Oblast – 0.777, while the lowest value is noted in Naryn Oblast – 0.737;
- the most educated people live in Chui Oblast, the level of educational attainment there is 0.815, while the lowest value is observed in Jalal-Abad Oblast – 0.763;
- the richest people live in Issyk-Kul Oblast, the income index value there is 0.589, while the lowest value is observed in Osh Oblast (including Osh) – 0.443.

1.1.1. Analysis of Human Development Components in the Kyrgyz Republic

Human development is a complex and multisided process which includes a range of aspects and is not limited to the three main HDI components. First of all, human development is the creation of an environment where a person can fully develop his/her potential and live a productive life meeting all his/her needs and interests. The basis for such an environment, among other things, is the economic capabilities of people which in many ways determine their standard of living, ability to invest in education and health, exercise social and political liberties as well as creative capabilities. It is not surprising that the level of people's income is traditionally considered as one of the three measurements of human development. The issues of economic and human development should be inseparably connected to the issues of sustainable development when the solutions of public and political, economic, social, regional and other problems are inseparably connected to the tasks of preservation and consolidation of natural resources, the environment and other key factors. Kyrgyzstan demonstrated its commitment to the MDGs, which was the first step by countries in the achievement of sustainable development.

Low institutional potential of the process of achievement of the MDGs has not allowed Kyrgyzstan to reach significant progress⁵, especially on the goals related to healthcare, education, and gender inequality. Nevertheless, a number of goal indicators have been achieved. Integration of these issues into the strategic country development agenda is the basis for sustainable economic and human development. As for the MDGs, the achievement of those was set for existing public authorities as an additional task and majority of such authorities proved not to be ready for setting tasks, elaboration of indicators and the design process. Thus, the formalization of the MDG was only at the level of elaboration and implementation of branch policies but was not reflected in goals and results of work of public authorities involved in the process of achievement of the MDGs (for example, medical staff or heads of healthcare institutions). In addition, the traditional sectoral approach to achieve stated goals did not bring any results as the MDG process required using inter-sectoral approach and interaction of a great number of institutions.

5 The third Report on Progress in Achievement of Millennium Development Goals in the Kyrgyz Republic. – UNDP, 2013. National Voluntary Presentation of the Kyrgyz Republic, 2015.

In Kyrgyzstan, the implementation of the National Strategy for Sustainable Development (NSSD) for 2013-2017 is now near completion. This document has attempted to take into account the majority of sustainable economic development actions in Kyrgyzstan and initiated the Programme of Transition to Sustainable Development (PTSD) for 2013-2017.

The results of this Strategy will allow evaluating the effectiveness of measures taken, which are particularly important now, when the global process of transition to the SDGs is in progress. It is necessary to mention that the transition process was initiated in 2013 in Kyrgyzstan after the completion of national consultations on priority development issues after 2015. The purpose of these consultations was to reveal the most urgent and primary directions for further development. In 2015 the National Voluntary Presentation (NVP) was elaborated for presentation as part of the annual survey at the ECOSOC ministerial level during which groundwork on the primary directions of transition from the MDGs to the SDGs was presented. Certain steps in relation to adaptation of the global goals are already being taken.

At the end of 2015 by the Resolution of the Government (22 December 2015 No. 867) a Coordinated Committee on Adaptation, Implementation and Monitoring of the SDGs up to 2020 was established in the Kyrgyz Republic. This Committee is the advisory agency which carries out coordination of activities of public and other authorities involved in the process of adaptation, implementation and monitoring of measures on achievement of the SDGs. The next important stage which is planned during the process of transition of Kyrgyzstan to the SDGs is the analysis and adaptation of tasks and indicators, and inclusion of those into strategic documents.

Box 1.2.

Toyunbubu, entrepreneur from Naryn:

«Nobody has not been hurt from additional income. For example, I attracted my daughter into my business, so she could learn handicraft starting from young age. I paid her training of foreign languages. Now she travels abroad, makes master classes and promotes our products. I think that her future is safe».

Income and Standard of Living

In relation to human development the Programme of Transition is differentiated from a number of other strategic documents. The Programme separates human development indicators into a matrix of programme implementation monitoring, which is entitled “Goal-Oriented Human Development Indicators (2013-2017)”.

This matrix contains a number of human development indicators, including infant and maternal mortality, life span, gender issues, poverty rate, educational issues, population

income level and others. Some matrix indicators, however, fail to fully reflect the real situation. For example, the goal-oriented reference points in the indicators of average salary and per capita cash income are established in nominal values. The nominal amount of population's salary and household profits increase every year, but the change of real money profits is more important. During the period from 2005 to 2015 the real monthly average salary increased by 7.8 per cent on average every year, while real cash income increased by 5.7 per cent per year. On the whole, the dynamics of change of real values of cash profits and salary is unstable, in 2013 and 2015 their real amounts decreased (see Figure 1.6).

In addition to quality, target orientation and access to services rendered by the state, the population's profits determine the poverty rate (Figure 1.7.). An analysis of poverty shows that up to 2010 there was a steady reduction of those living in poverty. The world financial crisis slowed down economic growth rates; and in Kyrgyzstan the change of power in 2010 and further interethnic conflicts in the south of the country resulted in serious consequences and had a negative impact on the social and economic situation. Retail trade, services, construction and tourism were affected by these events. Retail markets, where majority of underprivileged people worked, suffered significantly.

The economic growth that resumed in 2011 and increased social expenditures gradually led to reduction of poverty and extreme poverty rates. However, in 2015 the poverty rate increased again and reached 32.1 per cent of the population. Despite the fact that certain trends in poverty reduction are currently observed, the poverty rate still remains high.



Figure 1.6. Change of Real Values of Average Salary and per Capita Cash Income for 2006-2015, in % to the Previous Year

Source: National Statistical Committee



Figure 1.7. Dynamics of Poverty Rates in 2005-2015, %

Source: National Statistical Committee

Regarding gender differences, it is important to note that poverty has a stronger impact on women and is expressed by a higher per cent of HDI losses due to economic and gender inequality. Poverty among women affects their position in the labour market, which includes inequality of working men and women in terms of remuneration of labour and low competitiveness of women due to the required time out of the market for childbirth. Women earning a living, increase their load and still have to do the housework. According to a time management survey conducted in 2015 in Kyrgyzstan housework is done primarily by women, who spend 4.5 hours on average every day on such tasks which is 18.8 per cent of their time. Men normally spend 6.5 per cent of their time for housework. As a result women spend three times more for housework and two times more for child-rearing compared to men⁶. Several studies show that the gender equality policy targeting gender inequality in the labor market, in particular by reducing the household and child-rearing burdens, stimulates the economic growth and increases the aggregate income⁷. Individual attention should be paid to child poverty. According to official 2014 data the share of children living in poverty was 37.9 per cent, and those in extreme poverty was 1.7 per cent⁸. Thus, over a million of children in Kyrgyzstan live in poverty and face social vulnerability, such as a lack of access

6 Women and men of the Kyrgyz Republic 2010-2014. – Bishkek: National Statistical Committee of the KR, 2015.

7 In particular the results of the analysis of the Asian Development Bank (ADB) gender inequality model show that improvements in gender equality significantly stimulate the economic growth by re-distribution of women's time and stimulation of accumulation of human capital assets. So, according to the ADB estimates elimination of gender inequality leads to 6.6 per cent growth in aggregate income. See Jinyoung Kim, Jong-Wha Lee, Kwanho Shin, A Model of Gender Inequality and Economic Growth, ADB Economics Working Paper Series, No. 475, February 2016.

8 Standard of Living of the Population during 2010-2014. – Bishkek: National Statistical Committee of the KR, 2015.

to high-quality services, and are also vulnerable possible natural disasters. There is a clear correlation between the number of children in a family and the likelihood the family lives in poverty. Government financing social protection measures for children and families remains quite low which undermines the basis of sustainable development in future⁹.

In addition to the level of income, a combination of factors, such as the quality of consumption, access to healthcare services, quality of education and access to it, and infrastructure development influence the level of poverty. The multidimensional poverty index (MPI) ¹⁰ is the main indicator characterizing the influence of these factors.

The MPI reflects a number of deprivations¹¹ in the same household in the area of education, healthcare and standard of living which provides the answers to the questions “How poor are the poor people?” and “What does their poverty imply?” It also provides two possibilities for reducing poverty – a decrease of the number of poor people and relief of extreme poverty¹².

Households with at least two deprivations are considered **multidimensionally poor**. Table 1.3. contains description of deprivations during calculation of the MPI in the Kyrgyz Republic.

Table 1.3. Components of Multidimensional Poverty Index in Kyrgyzstan

Group	Indices
Health	Consumption of less than 2100 kcal
	No access to medical aid
Education	School-age children do not attend school or adults in the family are unemployed
	Required level of education has not been reached
Infrastructure development	Open source of drinking water
	No toilet
Material security	Relative poverty ¹³
	Over 30 per cent of income is spent for debt repayment

Source: Calculations of the National Statistical Committee

9 UNICEF: Over a Million of Children in Kyrgyzstan Live in Poverty. <http://knews.kg/208231/yunisef-bolee-milliona-detej-v-kyrgyzstane-zhivut-v-bednosti>.

10 Calculation of the MPI value is carried out by the National Statistical Committee based on UNDP methodology. The index components have been adapted taking into account the specificity of development of the Kyrgyz Republic and availability of statistical indices.

11 Deprivation is a condition caused by a lack of necessities of life or assets a person has been used to for a long period of time.

12 All indicators required for building a multidimensional poverty index for a household are taken from an integrated study of household budget and workforce. The indicators are weighted and then deprivation values are calculated for each household being studied.

13 Relative poverty is a share of households with consumption that does not exceed 60 per cent of median value of aggregate consumption.

The MPI reflects two values: 1) number of multidimensionally poor people; and 2) intensity of deprivations they have to experience, which together provide the average value of the number of deprivations.

Table 1.4. Dynamics of the Main MPI Components in the Kyrgyz Republic

	2010	2011	2012	2013	2014
Share of multidimensionally poor people, %	17,8	19,0	18,8	20,9	13,9
Share of deprivations, %	27,1	27,5	27	27,6	26,8

Source: Calculations of the National Statistical Committee.

As Table 1.4 shows the proportion of multidimensionally poor people has been reducing. In 2014 the negative trend stopped and the share of multidimensionally poor people reduced significantly to 13.9 per cent of the population. As for the rate of deprivations experienced by such people, it remains at the same level; a poor person experiences deprivation on 27 per cent of weighted indicators on average. It means the amount of multidimensional poverty has reduced by 22 per cent, while the number of deprivations by 1 per cent only. The least number of deprivations are experienced on educational achievement and provision of medical aid, while the greatest number of deprivations are related to food and access to clean drinking water. A number of studies accentuate the fact that a lack of awareness and ignorance of social and cultural norms by existing institutions can also aggravate the deprivation. Women living in the border districts of Batken Oblast, for example, preferred to access medical centres located in neighbouring Tajikistan because the majority of employees of local medical and obstetric centres were men¹⁴.

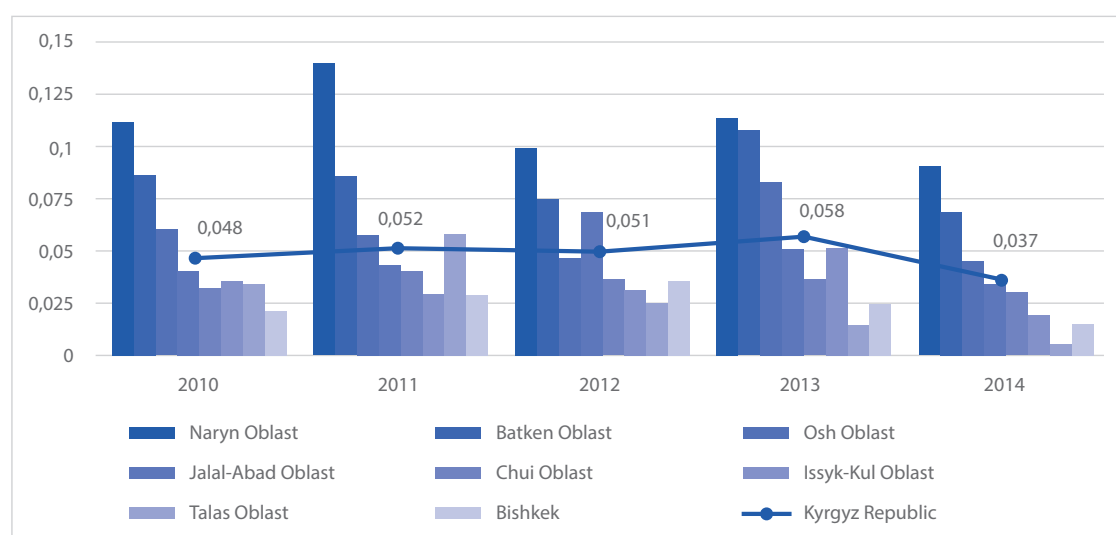


Figure 1.8. MPI Dynamics in the Oblasts of the Kyrgyz Republic

Source: National Statistical Committee

Figure 1.8. shows the MPI values for the Kyrgyz Republic and the MPI dynamics in the oblasts. Naryn and Batken Oblasts are the most multidimensionally poor, while Talas Oblast is the least multidimensionally poor. In addition, in 2014 the MPI values reduced significantly in all oblasts, and in Talas Oblast this value was near zero¹⁵.

Regarding the multidimensional poverty evaluation methodology in Kyrgyzstan it is necessary to note a few points. The number of evaluated deprivations is low. For example, the methodology of the Global Multidimensional Poverty Index, which also has to account for data availability as it is calculated for over 100 countries, is based on evaluation of ten deprivations. This means that two more deprivations are taken into consideration compared to the methodology used in Kyrgyzstan. If we compare experience of other Commonwealth of Independent States (CIS) it becomes clear that, for example, in Armenia multidimensional poverty calculation is carried out using five directions and over twenty indicators¹⁶. In Ukraine a household is considered multidimensionally poor if four of eighteen deprivations are observed in a household¹⁷. In addition, certain deprivation indicators, which are actually available from the data obtained as a result of a random study of household budgets, are not used in the methodology of calculation of the MPI in Kyrgyzstan. These indicators include deprivations related to housing conditions, such as the state of the house/apartment, heating, availability of items intended for long-term use and other indicators. The list of deprivations can also be extended with additional education and healthcare indicators and poverty self-evaluation.

Inequality indicators are important attributes of poverty which influence the standard of living of the population. The income inequality indicator of the population – the Gini index on income – is significant and has recently demonstrated a rising trend. Although before 2008 inequality was shrinking, but from 2009 this index value began to increase and reached the peak value of 0.456 in 2013, then in 2015 it dropped to the level of 2012.

Vice versa, the dynamics of the Gini index on consumption indicates a reduction in poverty. It is related to the fact that people's expenditures in the lowest deciles exceed their income which leads to "equalization". During the calculation of consumption expenditures consumed products produced by consumers themselves and aid received for free is added to the value of such expenditures. Therefore, a household can be considerably poor in terms of income, but it grows and consumes its own products or receives benefits and humanitarian aid which increase the value of consumption of such household in relation to income.

The Palma index, which shows the correlation of the share of income of the richest 10 per cent of the population to the share of income of the poorest 40 per cent of the population, indicated that from 2009 to 2013 there was an increase of inequality of income distribution compared to the most well-to-do population (see Figures 1.9.) It is interesting to note that reduction of inequality indices (both Gini and Palma) can be explained by a redistribution of the share of income from the wealthiest population (decile 10) to less wealthier population (decile 9) rather than by an increase in the share of income of the poorest population (deciles 1-3).

15 Comparison of the MPI and poverty rates by the regions confirm this situation. The lowest poverty rate is observed in Talas Oblast which in 2014 reached 19 per cent of the population.

16 Martirosova D. Report at High-Level Seminar on Harmonization of Poverty Statistics in CIS Countries. The United Nations Economic Commission for Europe: https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.15/2016/HLS/Session5_Armenia_EN.pdf

17 Materials of the Seminar on Poverty and Vulnerability Measurement. – UNECE, 2015: https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.15/2015/mtg2/Report_Workshop_rus.pdf

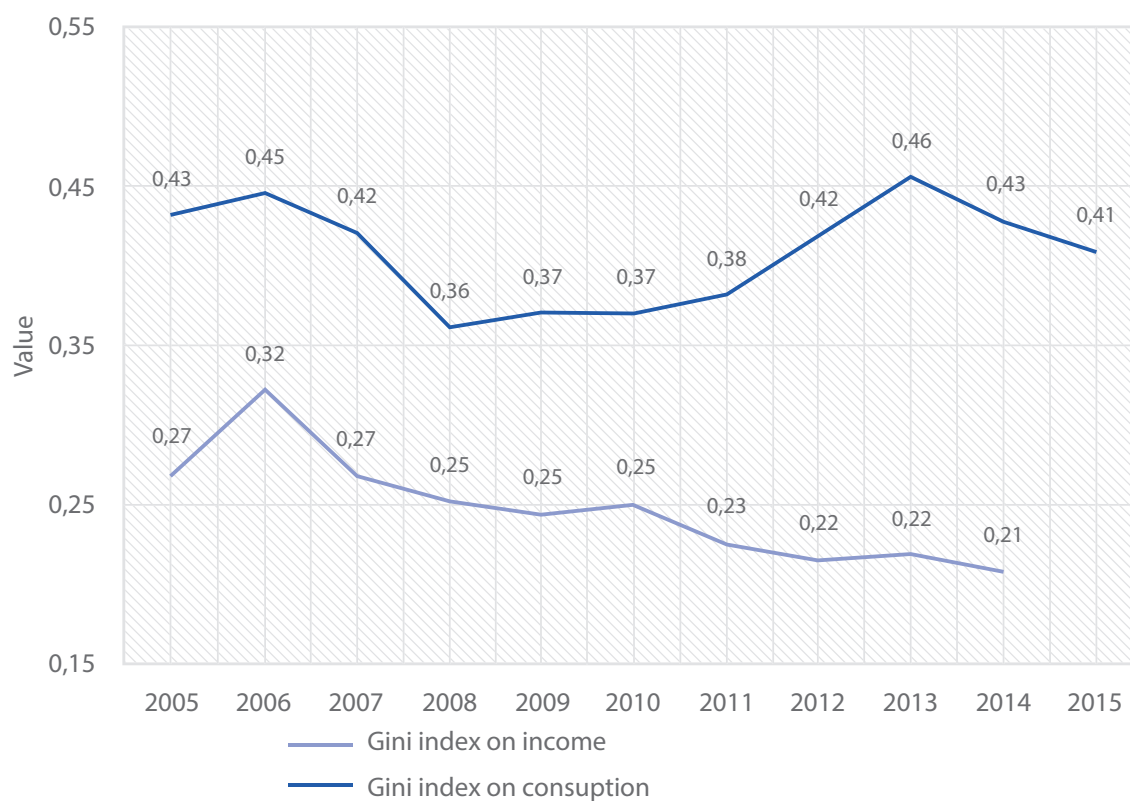
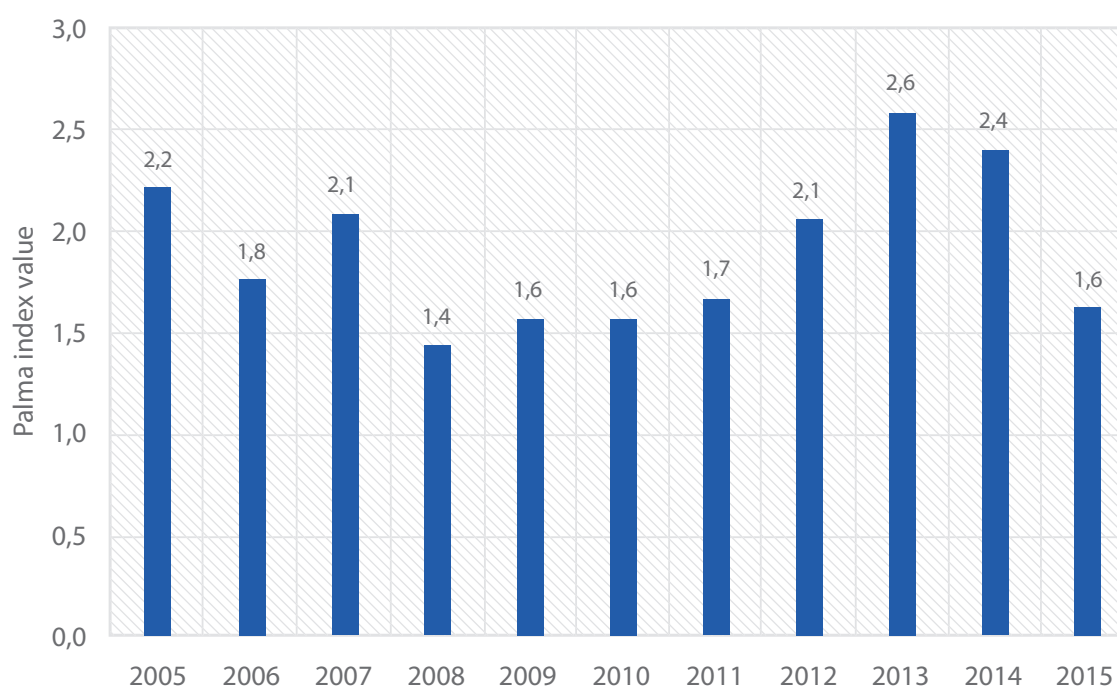


Figure 1.9. Inequality Indicators in the Kyrgyz Republic

1.9.a. Dynamics of Gini Indices on Income and Consumption, 2005-2015

Note: No data on Gini index on consumption are available for 2015

Source: National Statistical Committee, calculations of the authors



1.9.b. Dynamics of the Palma index, 2005-2014

Source: Calculations of the authors

Taking into account the influence of events in 2010 on the economic development of the country it is necessary to examine the periods before and after 2010. The dynamics cash income growth before 2010 shows a faster growth of income in the lower (the poorest one) decile groups compared to the richer ones which resulted in the reduction of inequality values (see Figure 1.9.).

The average rate of cash income increase of the first decile (the poorest one) from 2005 to 2010 was 12.1 per cent, while the average rate of cash income increase of the highest decile (the richest one) was 3.8 per cent (see Figure 1.10).

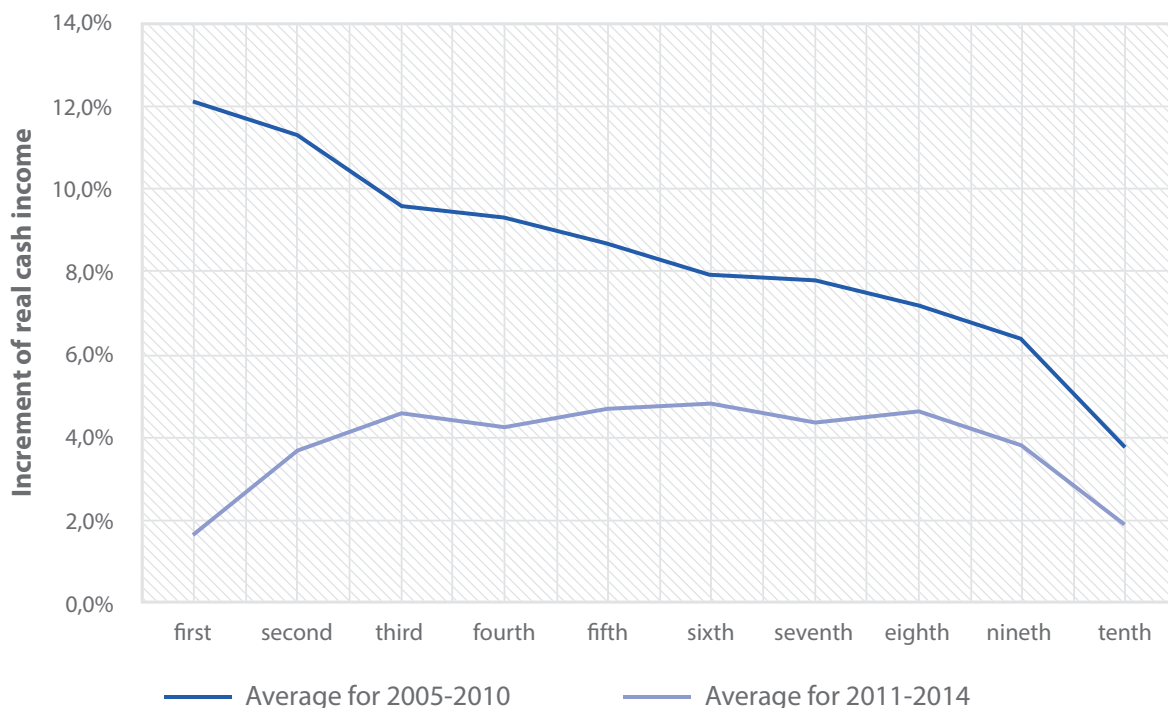


Figure 1.10. Increments of Real Cash Income by Decile Groups of the Population

Source: National Statistical Committee, calculations of the authors

From 2011 real income growth slowed down, especially among the poorer population. From 2011 to 2014 the average real income increase of the lowest decile was 1.7 per cent per year which was the smallest increase among all decile groups and it nearly corresponded to the rise of income among the highest decile while elimination of problems of poverty and inequality required faster growth of income in the lower decile groups (see Figure 1.10).

In 2014 this negative trend was interrupted. However, it would be unreasonable to speak about a long-term success, especially taking into account the current distribution of hardship allowances. In addition to political events, in 2010 the process of benefits monetization was completed. This process revealed certain challenges in the country's social security system. The orientation of hardship allowances also raises a question: to what extent are they targeted?

For example, in 2014 compared to 2010 the value of real allowances in the income structure of the poorest population was less by 38 per cent while in the income structure of the richest people, the fifth, sixth and seventh deciles the average value of real allowances increased

by 40 per cent. Moreover, calculations of the Report authors show that in 2014 it was the highest growth of the real income among the richest decile at 72 per cent against a 31 per cent reduction in the poorest decile group when compared to 2013. Today only one type of hardship allowances – monthly allowance for low-income families with children – is directly targeted at the poor but its coverage is insufficient and the amount is too small. The situation of the poor is aggravated by limited access to social services. Examining the registration of the population that indicate there is limited access to these services.

Irregular real income growth and lack of targeted social support during 2013 and 2014 resulted in the peak of monetary inequality for the past 10 years. Issues of poverty reduction, in particular the reduction of inequality, are not properly reflected in the NSSD and PTSD. Great attention is paid to economic development and sustainability of economic growth, but measures directly aimed at poverty reduction are disregarded.

As for matrix “Target Indicators of Human Development for 2013-2017” of the PTSD, it has one indicator only – the poverty rate – which requires more disaggregation. In particular, an extreme poverty indicator is not established, monitoring of regional breakdown or breakdown by city/village, gender and child aspects of poverty is not carried out. Besides, there are no measures for the reduction of monetary inequality, and indicators of inequality monitoring are not established.

Transitioning to the SDG it is important to note that SDG 1 and SDG 10 are totally dedicated to issues related to poverty and poverty reduction, as well as elimination of monetary and non-monetary inequality. Taking into account that inequality issues are considered in all spheres of the country, and cover economic political and social issues, it is necessary to consider them during elaboration of further strategies and concepts.

Some Trends in Healthcare and Education

The life expectancy at birth is one of the three components of the human development index. This indicator is the most important integral indicator of the demographic situation in the country. Figure 1.11. shows gender disaggregated values of life expectancy in Kyrgyzstan. On average, women have a longer life expectancy than men by eight years. In addition, in 2015 compared to 2005 life expectancy of men increased by 2.5 years, and for women it increased by 2.9 years.

As for the life span value, it falls behind the life span value of more developed countries¹⁸. Plenty of factors influence this value, including the standard of living, expenditures for healthcare, access to and quality of healthcare services, fertility rates, infant and maternity mortality levels, quality of food, and others.

18 According to the data of the Human Development Report 2015 in Norway, which ranks first, in the HDI rating life expectancy at birth is 81.6 years, in Switzerland, which ranks third, it is 83 years. In spite of the lower life expectancy rates compared to these countries Kyrgyzstan ranks first among the Central Asian countries.

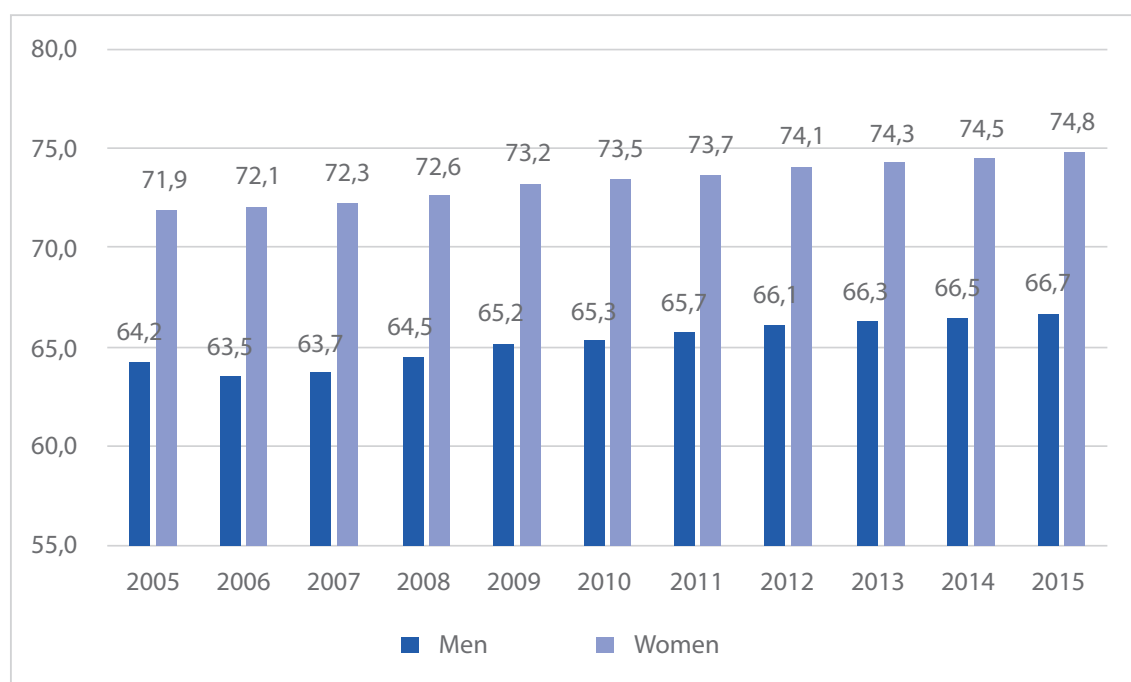


Figure 1.11. Life Expectancy by Gender, Years

Source: National Statistical Committee

In Kyrgyzstan the issue of health improvement is closely related to nutrition issues. According to SPRING¹⁹, malnutrition leads to 11 per cent reduction of the gross national product as a result of lost lives, poor progress at school, reduction of income and sickness absences at work. Chronically malnourished children stop growing and developing properly. This problem is especially serious as it limits brain activities and a weak immune system develops, in addition, undernourished mothers are more likely to give birth to unhealthy children.

Levels of infant and maternity mortality remain high in Kyrgyzstan (Figure 1.12.). The maternity mortality level is one of the highest in Central Asia. Efforts to achieve MDG 5 has shown that the maternity mortality level cannot be reduced through the efforts of the Ministry of Health alone. It is necessary to use an cross-sector approach and involve various ministries into this work, including the Ministry of Culture, Ministry of Education, Ministry of Social Development, local self-government authorities, unofficial institutions, and a number of other agencies.

The common nature of the reasons of maternity and infant mortality has repeatedly been noted. The main reasons²⁰ for infant mortality are the conditions which develop during the prenatal period. And if during the past ten years significant progress is noted related to reduction of mortality level in children under 5 years old m.

19 Materials of the Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project. – Bishkek: USAID, 2015

20 Reference Book of the Republican Medical and Information Center, 2015



Cultivation of Uzgen rice, Osh Oblast, photo of Public Union "Agrolead"



Exhibition of Kyrgyz products in Russian Federation, photo by Urmat Takirov



Demonstration potato field, Naryn Oblast, photo by Mirlan Dyikanbaev



Determination of moisture content of maize, Osh Oblast, photo by Azamat Kasymov

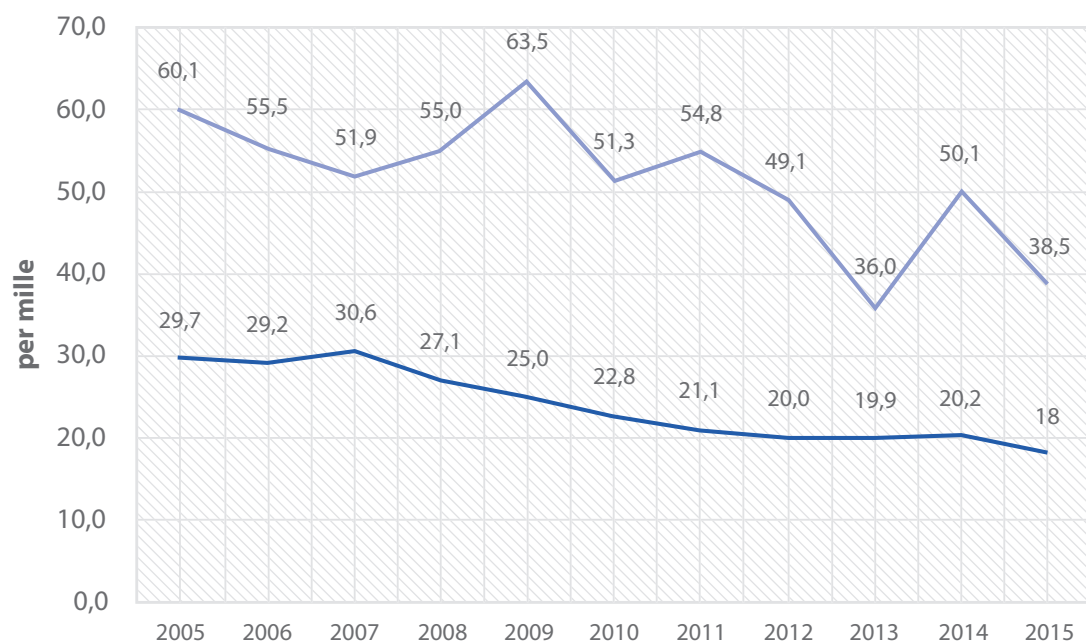


Figure 1.12. Dynamics of Infant and Maternal Mortality Rate

Source: National Statistical Committee

If we speak about child mortality the proportion of morbidity of children is higher among those who are not breastfed. Today only 41 per cent of infants are breastfed until they are 6 months old. There is a number of reasons why women refuse to breastfeed children. For example, they become migrant workers and leave their babies under the care of elderly members of the family; women have to work and conditions of work do not allow them to combine both family and labour duties despite the Law “On Breast Feeding”. Public institutions and private companies do not have rooms dedicated working mothers to breastfeed infants.

As for the healthcare system we should mention that according to surveys²¹ since 2005 a number of important reforms have been carried out which resulted in the reduction of financial burden of patients, equalization of regional funding distribution through the pharmacological support programme, and an increase of availability and equality in the use of medical services. The quality of both outpatient and in-patient medical aid, however, remains a significant problem for the healthcare system in the country.

The second key HDI component is the level of literacy and education among the population.

At the global level this indicator is measured by the level of expected and average duration of education. In Kyrgyzstan the HDI component on education is usually measured as the level of literacy and aggregate share of students in educational institutions²². According to the

21 Ibraimova A., Akkazieva B., Ibraimov A., Manzhieva E., Rechel B. Kyrgyzstan: Healthsystemreview. Health Systems in Transition, 2011; 13(3):1–152.

22 Differences in the methodology have already been considered above (see Box 1.1). For more details on the HDI calculation methodology in Kyrgyzstan see Appendix 1

population census and NSC data²³ the literacy level in Kyrgyzstan is very high and exceeds 99 per cent of the population. On the whole literacy of the population remains stable although there is insignificant gender imbalance as around 0.3 per cent more women are literate²⁴.

In Kyrgyzstan the proportion of the population with only primary education, or without it, is relatively low. The gross coverage of children with the basic general education has increased (in the academic year of 2013/2014 the coverage value reached 98.4% compared to 96.7 per cent in 2009/2010) despite some insignificant differences among girls and boys (see Table 1.5)²⁵.

It is necessary to note there is a certain territorial imbalance mainly caused by internal migration directed primarily at cities which leads to the fact that there are more children studying in cities than the statistics indicate.

Table 1.5. Gross Coverage of Children Aged 7-15 with Basic General Education, %

	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Kyrgyz Republic	96,7	96,5	97,1	97,7	98,4
Cities	106,6	106,9	109,5	113,5	115,7
Rural area	92,8	92,4	92,2	91,5	91,6
Boys	97,1	96,9	97,6	98,1	98,7
Girls	96,3	96,2	96,5	97,3	98,2

Source: National Statistical Committee

In general women are more educated than men regarding higher and vocational education, but they are less educated at lower stages of education. Thus, the share of women without education or with only primary education is 0.9 per cent higher than men.

And the share of women with secondary and higher vocational education (including incomplete higher education) is 30.6 per cent, which is higher than 22.3 per cent of men (see Figure 1.13).

23 Collection "Education and Science in the Kyrgyz Republic 2009-2013", National Statistical Committee of the KR, Bishkek, 2014. This collection is published once in two years that is why here and further the analysis of dynamics is limited to 2013

24 The third Progress Report on Achievement of MDG in the Kyrgyz Republic

25 Values of net coverage of the population with secondary education are lower, and in 2014 they were 87.5 per cent for grades 1-4, 86 per cent for grades 5-9, and 42.4 per cent for grades 10-11.

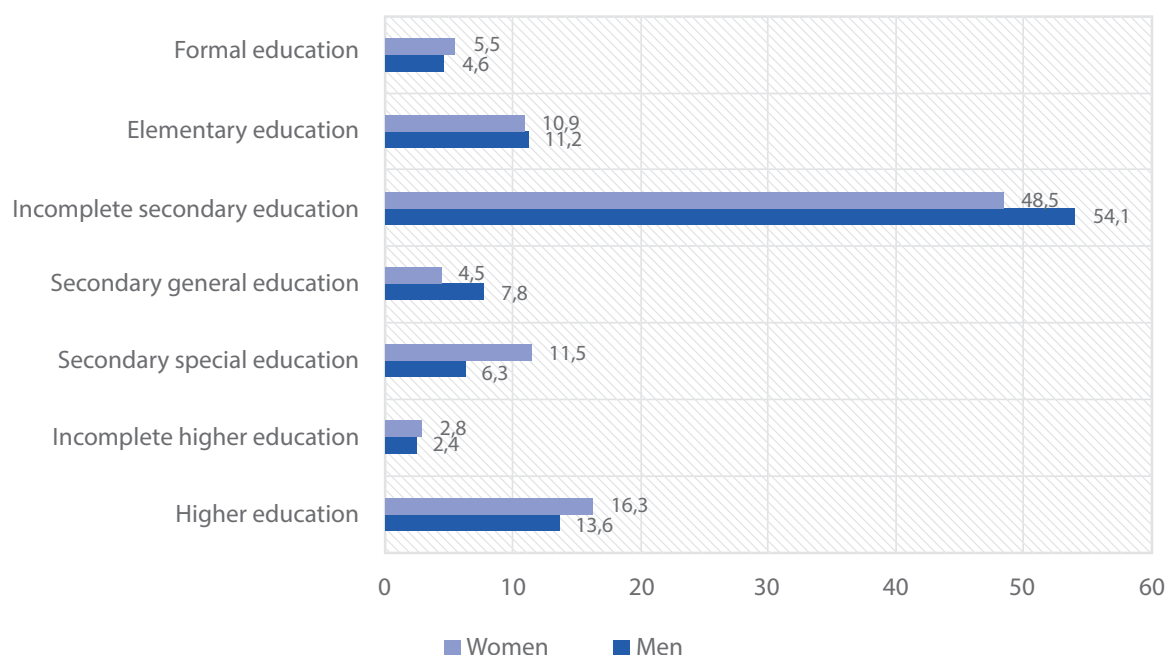


Figure 1.13. Education Level of Women and Men in 2013,²⁶ %

Source: National Statistical Committee

In spite of the low level of illiteracy and high coverage of the population with basic general education it is necessary to admit that the quality of education provided in the country is questionable.

Data show expenditures on education increase but do not provide expected results; the quality of education is getting worse. For example, according to the data of Programme for International Student Assessment (PISA) test results in 2009 Kyrgyzstan ranked the last among 65 countries.

In the next round of tests which took place in 2012 Kyrgyzstan did not participate. Up to 2015 there was a tendency of reduction of the average number of scores on the main test of the General Republican Testing (GRT). If in 2006 this value was 113.9, in 2014 it dropped to 104.9. At the same time the number of school leavers who got less than 100 on the main test of the GRT²⁷ increased. In 2006, it was 23.5 per cent and in 2014 the value rose to 38.6 per cent²⁸.

The situation is getting even more complicated due to the fact that despite a slight reduction there are a many children who due to a number of reasons do not start attending school at the beginning of an academic year. In 2015, 2,226 school children failed to start school, while in 2009 this number was higher – 3,020 school children.

26 The data are based on publication of the NSC "Education and Science in the Kyrgyz Republic in 2009-2013". This document is published once in two years that is why as of the moment of preparation of this Report the latest data on education were available for 2013.

27 Threshold value for entering a higher educational institution.

28 The data provided by the National Statistical Committee.

Table 1.6. Reasons why Children Fail to Start Attending School in a Corresponding Academic Year, %

Reason	2012	2013	2014	2015
Children with disabilities	32%	42%	49%	58%
For domestic reasons	20%	8%	25%	14%
Working	7%	35%	7%	7%
Material difficulty	8%	3%	7%	6%
Temporary seasonal work	0%	1%	1%	8%
Other reasons	33%	11%	11%	7%

Source: National Statistical Committee, calculations of the authors

As Table 1.6. shows the majority of children who fail to start attending school are children with disabilities, and the number of children with disabilities is increasing. Many children, despite their young age, have to work to help their parents support the family. It should also be noted that children's unwillingness to study and parents' unwillingness to make their children study can also be the reason of non-attendance of educational institutions.

It is remarkable that gross coverage of children of grades 10-11 with education is only 53.4 per cent. More girls (56.7 per cent) are covered than boys (50.2 percent) (see Figure 1.14). This is basically related to the increase of the number of teenagers who have to work at an earlier age due to financial reasons. Some young people transfer to educational organizations providing primary and secondary vocational education to receive professional training as soon as possible to be able to start working. This fact is confirmed with the increasing number of graduates of secondary vocational institutions²⁹.

Box 1.3

Asiya, private enterprenuer from Djalal-Abad:

«As business lady, I have learnt a lot by myself, and nobody supported me. Now I have small café (e.g. trade by food services – authors' note). There are no any support from the Government and from local government for my business in spite I regularly pay taxes. There is some development, but thanks to efforts of women. Women create themselves required conditions. I am a getter for my family. At the same time, all my children have a higher degrees, however cannot find job, that's they assist in my business. As a result, all income goes to consumption and family expenditures. And we cannot afford savings for health and self-education».

29

According to the data of official statistics in 2009 the number of graduates of institutions of secondary vocational education was 11,600 people, in 2015 this number grew to 27,100 people.

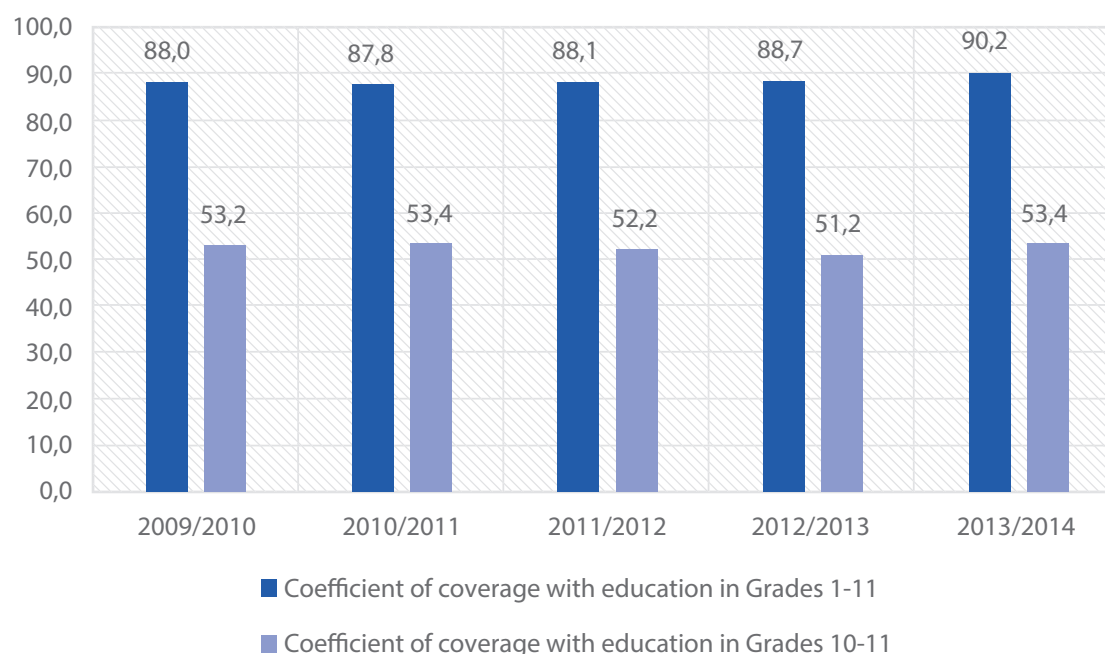


Figure 1.14. Gross Coverage of Children Aged 7-17 with Secondary General Education, %

Source: National Statistical Committee

Finally, it is important to note that the level of education significantly influences households' income and poverty rates. Investment in education determines the economic and social status of a person in many ways. Statistical data show that poverty spreads among the families where the head of the family has a low level of education, and income per capita is higher in households where the head of the family has higher or secondary vocational education³⁰.

On the whole, it is worth mentioning that problems in education lead to worsening of the quality of education of the population despite the widespread coverage. In this regard, monitoring of achievement of education goals set out in the NSSD is indicative. Access to education is taken here as the basis for achievement of the goals (for example, PTSD indicator "Coverage of Children with Basic Education (grades 1-9)").

On the contrary, SDG 4 on education makes an emphasis on the quality of provided education. For example, indicator 4.1.1 Share of Children and Youth highlights a) in grades 2-3, b) primary school leavers and c) secondary school leavers who have obtained at least the minimum level of i) literacy and ii) calculation skills with a breakdown by gender³¹. This means it is necessary to elaborate a clear approach to establish and disaggregate priorities in education which will take into account the most urgent problems in the country.

In general, it can be concluded that has been progress in human development in Kyrgyzstan, and the positive dynamics of the HDI is quite noticeable. Kyrgyzstan is the leader among all Central Asian countries and EAEU on the HDI growth rates. At the same time the country ranks

30 Education and Science in the Kyrgyz Republic during 2009-2013. Section 4. Level of education and Income of the Population: Table 4.1. – Bishkek: National Statistical Committee.

31 See http://www.un.org/ga/search/view_doc.asp?symbol=E/CN.3/2016/2/Rev.1&referer=/english/&Lang=R

next to last on the level of this index in the region. In addition, it is necessary to state that if this index is adjusted according to the per cent of losses resulting from inequality this index will be one of the highest in the region.

However, we must admit that the positive dynamics both at the national and oblast level has been in many ways determined by more recent Government attention paid to separate human development components. The NSSD included the main principles of sustainable development. Moreover, the PTSD which implements the NSSD included human development indicators into a separate matrix of monitoring for the programme. At the same time a number of indicators and indices which examine human development are still not reflected in the strategic agenda of the country's development. This issue should be taken into account during the process of elaboration of the coming national strategic document and during transition of Kyrgyzstan to the SDGs.

1.1.2. Trade as a Means of Enhancement of Human Development

It is difficult to overestimate the interaction between trade and human development. Experience of some countries shows that countries with medium and low levels of income receive the most benefit for the population during the process of strengthening of international trade. It is mainly trade that helps to promote human development by creating new possibilities for earning income and the creation of new working places, especially for vulnerable groups of the population.

These issues are reflected in the SDGs, which forms part of the strategic agenda of international trade development. The Report authors note that a trade issues have been integrated into the SDGs. On the one hand, assistance in trade development is directly stated in SDG 17 noting that global partnerships are assist in creating fair, multisided trade systems and stimulate exports among countries. On the other hand, trade issues are considered as the instruments to solve the certain tasks.

Part of SDG 8, for example focuses on how sustainable economic growth trade can become one of the possibilities for implementation the tasks set out under that goal. In addition, trade development can be used to determine certain goals and setting certain tasks. Finally, trade integration can help to increase the amount of waste, and the issues of waste control are reflected in SDG 12. Table 1.7. contains a list of trade-related SGD tasks.

Table 1.7. List of SDG Goals and Tasks Related to Trade

Assistance in trade development is stated directly	Trade as a possible instrument	Possible consequence of trade
2.b. To eliminate and stop implementation of trade limitations and occurrence of distortions in the world markets of agricultural products, including through parallel liquidation of all forms of financing of export of agricultural products and all export measures which have similar consequences in accordance with the mandate of the Doha round of negotiations on development issues.	8.3. To assist in pursuing of the policy oriented at development which promotes production activity, creation of decent working places, entrepreneurship, creativity and innovative activity, and to encourage official recognition and development of small and medium-sized enterprises, including through providing access to financial services	10.c. By 2030 to reduce operating expenses related to transfer by migrants of funds, to less than 3 per cent from the transfer amount and liquidate money transfer channels where such expenses exceed 5 per cent
8.a. To increase support provided as part of the "Assistance in Trade" initiative of developing countries, especially the least developed countries, including according to the Expanded Complex Framework Program for provision of technical assistance in trade area to the least developed countries	8.5. By 2030 to ensure full and productive employment and decent working places for all women and men, including young people and people with disabilities, and equal payment for labor of equal value	12.3. By 2030 to cut by half in calculation per capita the total world amount of food waste at the retail and consumer levels and to reduce food losses in production-sale chains, including post-harvest losses
10.a. To put in practice the principle of special and differentiated regime for developing countries, especially the least developed countries according to agreements of the World Trade Organization	8.8. To protect labor rights and assist in provision of safe and reliable work conditions for all workers, including migrant workers, especially women-migrants and persons without secure working places	12.4. By 2020 to ensure ecologically rational use of chemical substances and all waste during their entire life cycles in accordance with coordinated international principles, and significantly decrease penetration of such substances and waste to air, water and land, to reduce to minimum their negative impact on people's health and environment

14.6. By 2020 to prohibit some forms of subsidies for fishery which promote creation of excess facilities and overfishing, cancel subsidies which promote unlawful incommunicable and unregulated fishery and refrain from introduction of such new subsidies by admitting that proper and effective use of the special and differentiated regime in relation to developing and the least developed countries should be the integral part of negotiations on financing of fishery conducted as part of the World Trade Organization	9.1. To develop high-quality, reliable, sustainable and stable infrastructure, including regional and trans boundary infrastructure to support economic development and welfare of people paying special attention to provision of inexpensive and equal access for everyone	12.b. To develop and implement instruments of monitoring of influence on sustainable development by sustainable tourism which promotes creation of working places, development of local culture, and manufacture of local products
15.7. To immediately take measures for putting a stop to incommunicable poaching and illegal trade in protected kinds of flora and fauna and to solve the problems related to both the demand for illegal wildlife products and supply of these		
15.c. To activate global efforts on fight with poaching and illegal trade in protected kinds of wildlife, including by expanding the possibilities of local population to earn for a living using environmentally friendly methods		

17.10. To encourage universal, rules-based, open, non-discriminatory fair multisided trade system as part of the World Trade Organization, including owing to completion of negotiations on its Doha agenda in the area of development		
17.11. To significantly increase export of developing countries, in particular for doubling the share of the least developed countries in the world export by 2020		
17.12. To ensure timely provision to all the least developed countries on a long-term basis duty-free and quota-free access to markets in accordance with the decisions of the World Trade Organization, including by provision of transparent and simple preferential rules of origin applied in relation to goods imported from the least developed countries, and that such rules assist in facilitation of access to markets		

It is important to remember that the policy of trade stimulation and external integration should be accompanied by the corresponding internal social policy of the country³². Table 1.8. contains the main approaches to evaluate trade influence on human development.

32 See Trade and Human Development. Central Asia Human Development Series. - UNDP: Regional Bureau for Europe and the Commonwealth of Independent States, 2014.

Table 1.8. Some Approaches to Evaluation of Trade Influence on Human Development³³

	Approach	Description
I.	Trade -> economic growth -> human development	External integration and improvement of international trade conditions lead to possible trade acceleration. As a result possibilities are created for an increase of profits of the national budget. In turn, additional budget expenditures are aimed at reduction of inequality in income and improvement of the social area, healthcare and education systems.
II.	Trade -> expansion of employment -> human development	Owing to trade development, new working places and possibilities for acquisition of income are created. As a consequence of expansion of employment and consolidation of income additional funds of the population are spent for improvement of health, social status and educational opportunities.
III.	Trade -> creation of additional working places for women -> human development	Trade creates new possibilities for women and promotes expansion of employment of women and increase of sources of their income (for example, in small businesses). In turn, it promotes expansion of possibilities for women to participate in the political and social life of the country and allows for the reduction of inequality between men and women.
IV.	Trade -> small business development -> human development	Trade development has a stimulating influence on development of small businesses and subjects of small business gradually become more socially responsible and begin supporting the programmes of social significance and this way promote human development.

The aforementioned approaches consider the roles of both the state and private sector in the interaction of trade and human development. It is important to note the state promotes trade development by pursuing an external integration policy. Export expansion and border trade development lead to essential economic benefits for both the country budget and income of the population. According to calculations carried out by experts of the Organisation for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) one dollar spent for trade development can lead to an expansion of export from developing countries by more than eight US dollars, and from some of the poorest countries – by twenty US dollars³⁴. It should be further noted that except for the distribution of economic benefits from trade development, social benefits obtained as a result of expansion of employment

³³ These approaches have been summarized by the authors based on the analysis of literature on interaction of trade, economic and human development.

³⁴ Aid for Trade at a Glance 2013: Connecting to Value Chains. – OECD/WTO, 2013.

of vulnerable groups and increase of social responsibility of the private sector are also important. Trade development theories and national experience show the possibility of positive influence of trade on the position of low-income groups of the population in countries with low and medium income which specialize on production and export of labor-intensive products and services. In addition, European integration is capable of stimulating an expansion of production and export in such labor-intensive areas as textile industry, food industry, wholesale and retail trade, and tourism in Kyrgyzstan.

These are the branches traditionally occupied by women which include a great share of informal employment. Besides, active support of export products taken from labour-intensive branches creates new working places and increases the income of the population, and can help to acquire market skills. In this regard, it appears necessary to increase the support of vocational and technical education, services in business areas and other initiatives aimed at growth of productivity and potential of small farmers, producers and trade representatives.

Employment data of youth and women can serve as an interesting example to illustrate some of the aforementioned points. For the majority of women and young people retail trade is either the only source of means of support or the only source of self-actualization due to a range of factors of inequality (such as, limited access to other types of activity and non-availability of necessary education)³⁵. Plenty of women work in trade and hotel business. So, around 23.2 per cent of women are employed by small and medium-sized businesses, around 41.4 per cent of women are employed in trade, and 50.2 per cent of women (of all women employed in this sector)³⁶ work in the hotel and restaurant businesses.

Moreover, according to the data of the National Survey as part of execution of the Beijing Declaration and "Beijing 20+" Platform for Action, 56 per cent of women-entrepreneurs worked in the trade sector in 2013. It should be noted that an insufficient amount of information, limited access to resources required to set up a business, unfavorable tax environment and administrative obstacles often force women to work in the informal sector³⁷ which does not have social protection system.

Young people often find themselves in a similar situation. Trade is the second largest sector for employment of youth. The biggest share of youth is employed in agriculture (33%) and trade sector (18%). These are mainly employees of the service sector, retail trade, and related areas of activity.

The situation with foreign trade is a little more complicated. International trade can promote involvement of women and other vulnerable groups due to the expansion of access for them in markets. However, according to surveys³⁸ the majority of developing countries have difficulties with access to education, information, financial services, control of resources and other issues.

It is necessary to remember that free movement of goods, services and workforce through borders created as a result of trade development can also have negative side effects. An

35 As results of focus-group discussions have shown many people with disabilities find themselves in sale of products they make themselves, for example, costume jewelry, accessories with national ornaments, etc., i.e. the products production of which does not require full physical fitness. In addition, in some cases men prohibit their wives to work in companies where men work or make them stay at home all the time. This has led to development of Internet trade, especially in Bishkek, opening of beauty salon at home, etc.

36 Small and Medium-Sized Business in the Kyrgyz Republic during 2011-2015. – Bishkek, National Statistical Committee of the KR, 2016.

37 According to the data of publication "Employment and Unemployment. Conclusions of the Integrated Random Survey of Household Budgets and Workforce in 2015" of the NSC the number of women working in the informal sector was 608,500 people in 2015.

38 Materials of the International Centre for Trade and Sustainable Development: www.ictsd.org

additional load can be created on distribution of income and other social and human aspects of the country development. Thus, economic growth associated with trade development can be limited to separate branches or regions.

As a result the growth of income will be accompanied with the growth of inequality in distribution of such income. In addition, competitiveness of small producers cannot always reach the regional level which reduces possibilities of ongoing participation of those in external integration and benefiting by them from trade expansion. It is important to avoid the increase of dependence on export of raw materials which can reduce the stress on ecological, human and social capital assets. Besides, external trade integration can promote development of illegal trade, including illegal drug trafficking, human trafficking and illegal trade in alcohol and cigarette products³⁹.

Therefore, the economic growth related to trade expansion can promote human development only when it is accompanied by an increase of employment and creates possibilities for improvement of social benefit financing. This becomes especially important for developing countries and countries with low productive and innovative potential, or a significant focus on agriculture. And thus trade becomes the only source of income, especially for poor and vulnerable categories of the population.

We can conclude that at least from the point of view of employment trade plays a great role in provision of working places to the vulnerable population. This directly influences their standard of living, particularly as employment leads to the growth of household income. Depending on priorities in expenditures additional income can be spent for improving nutrition, qualification or education, including education of children, improvement of health, such as for expansion of human capabilities.

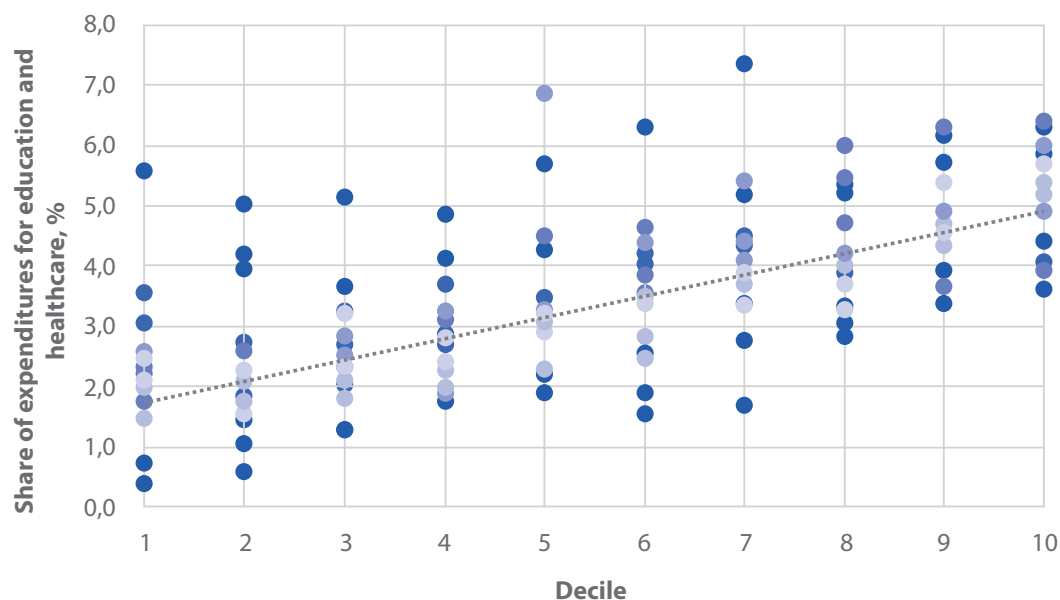


Figure 1.15. Distribution of the Share of Expenditures for Education and Healthcare in Decile Groups in 2000-2014

Source: Calculation of the authors based on National Statistical Committee data

Statistical data demonstrate the increase of the share of expenditures for education and healthcare in deciles which means that transition from a poorer group to a richer one can promote attraction of more investment in human development.

Distribution of the share of summarized expenditures of households of each decile for educational and healthcare services as a part of the total volume of expenditures annually during 2000-2014 was taken as the basis for such calculations. Thus, for example, the average share of summarized expenditures of households for education and healthcare during 2000-2014 in the first decile was 2.2 per cent of the total amount of expenditures, and in the tenth decile this value reached 5.1 per cent. In addition, Figure 1.15. shows a clear trend in the increase of the share of these expenditures during the transition to a richer decile group.

At the country level the economic growth caused by trade and employment expansion can promote human development using state regulation measures and changes in state budget expenditures. Similarly, as a result of economic growth, budget income can increase which will meet the interests of human development if additional expenditures are aimed at a reduction of income inequality and for improvement of healthcare and educational systems.

In addition to its direct connection to human development through the economic growth, trade can promote significant expansion of possibilities of choice for people due to growing trade areas for goods and services, and provision of regular income for families. Workers with low qualifications, women, small producers and traders, and people living in border districts could benefit the most from such possibilities of human development.

Trade development and the corresponding growth in prosperity of households can also assist in reduction of social inequality and increase of the population access to high-quality social services. However, it is important to remember that economic growth does not always lead to inequality reduction. Similarly, trade has a different influence on men and women's positions. In the case of trade expansion employment of women can increase but this does not mean the level of their salaries will automatically rise or stable employment will be guaranteed.

Moreover, trade expansion can result in an increased workload on women. If there are no effective mechanisms of distribution of benefits obtained as a result of trade expansion the position of poor and vulnerable population groups will hardly improve.

1.2. Cross-border Trade, Migration and Human Development

Cross-border Trade

The influence of trade on human development in Kyrgyzstan cannot be considered without taking into account cross-border trade, as it is cross-border trade that is a source of earning for a living for many people, especially in the oblasts.

The specificity of cross-border trade is geographic proximity which leads to minimal transportation expenses. This allows using differences in the supply, demand and prices for various goods and services accessible on both sides of the border, as well as taking into account seasonal changes. In the cross-border regions many people cross the border every day. Producers of agricultural products sell their products and buy other goods; consumers have a chance to buy fresh products at good prices.

In addition to maintaining of friendly relations between neighbours, cross-border trade has a positive influence on the life and income of sellers, strengthening of local production and promotion of development of the service sector (such as warehouse services, transportation and ancillary services at local markets). It also promotes income growth among persons working at markets and those whose activity is related to markets and trade. It significantly stimulates employment in the remote oblasts which are characterized by the deficit of working places and low salaries, creates a source of income for all households, and is more profitable than most of other possible types of the economic activity in the border regions.

Results of surveys show that individuals/small traders and their families who are often the producers of the goods they sell are usually involved in border trade. Goods are sold in small quantities, usually less than a hundred kilogrammes, and their cost does not exceed a few hundred US dollars. Agricultural and consumer goods are the main kinds of such goods sold in the border regions. Small traders carry their goods on foot, by bicycles, minibuses or cars to the other side of the border⁴⁰.

The difference in prices on both sides of the border allows exporters to benefit from a higher cost. For example, potato producers in Osh Oblast prefer selling their potatoes in Uzbekistan rather than in Kyrgyzstan because the price for potatoes in Uzbekistan is much higher, and in Kyrgyzstan the supply of potatoes significantly exceeds demand. Similarly, producers of tomatoes and cucumbers in Uzbekistan prefer selling their products in Kyrgyzstan rather in their own country.

It is quite important that cross-border trade allows for creating employment for women. They more actively participate in cross-border trade, selling of goods at the markets and carry goods through border-crossing points⁴¹. In addition, cross-border trade development creates conditions for development of the so-called “periphery business”⁴² – stands, grocery stores, roadside cafes on both sides of the border.

The main problem of cross-border trade development is that its benefits are **very vulnerable to actions of governments of neighbouring countries** from the point of view of movement of people, goods and vehicles. Tariff and non-tariff barriers discussed in Chapter 2 have a special influence on cross-border trade development. However, taking into account the fact that cross-border trade is notable for relatively small volumes and availability of informal economy a number of barriers have a special influence on it:

1. Lack of sufficient infrastructure at border-crossing points for optimal crossing of the border, such as few border stands, long queues which humiliate people’s dignity. Borders can be sometimes closed without any reason, like it happened with Uzbekistan.

40 B. Kaminski, S. Mitra. A Ball of Silk: Endless Markets and Border Trade in Central Asia. – World Bank, 2008.

41 It is important to remember that a woman involved in border trade is subject to great risks. A portrait of a woman-entrepreneur created on the basis of results of a survey (Evaluation of Business Environment for Development of Women’s Entrepreneurship in the Kyrgyz Republic/International Labor Organization, Working Document No.3. – M:2009) has shown that a woman involved in border trade usually carries out her business alone, she is always examined by customs authorities, and subject to extortion and sexual harassment.

42 “Periphery business” is an entrepreneurial activity which typically involves between one and five people. Irrespective of how long people work in these roles their businesses never grow in turnover, profits or other indices. They tend to select a place for their business in a random manner. Such trade usually includes grocery stores, stores selling agricultural products, comfort items, roadside cafes or similar activities.

Box 1.4***Askhat, an entrepreneur from Talas:***

"Red tape turns the border-crossing process into a huge problem for us which makes a lot of people get involved in illegal trade. We bring diesel, fruit, vegetables and cotton-seed oil from Kazakhstan to Kyrgyzstan to sell. Potatoes and consumer goods are brought to Kazakhstan from Kyrgyzstan. Using remote paths hundreds of traders from both countries illegally cross the Kyrgyz-Uzbek border. Yes, we break the law by getting involved in illegal trade but this is the way we feed our families and provide citizens of our countries with cheap goods without customs payments."

2. Low limits for duty-free import of goods. For example, at cross-border trade points with Tajikistan the total cost of carried, purchased and sold goods, operations and services cannot exceed the amount equivalent to USD 1,000 for each day of trade per each participant⁴³ which leads to both additional delays in customs examination and increased financial burden.

3. People's lack of awareness of laws, especially in relation to the laws and rules of crossing a state border as traders do not have required documents for their goods. This, in turn, results in confiscation of the goods or extortion.

The aforementioned barriers and isolation measures force people to break the law and take part in illegal trade. Surveys show that illegal trade is most developed in the southern oblasts which border with Uzbekistan. In the majority of cases goods are carried through places where no border-crossing points are available, that is why such goods do not require customs registration. These illegal ways become the routes for carriage of goods further, between the countries. There is a risk that if traders are caught in illegal crossing of the border, border guards can confiscate both money and documents⁴⁴.

Trade complications undermine the labour market and regional private entrepreneurship is delayed. This aggravates inequality of social and economic development, increases poverty and instability in the region. Gaps in formal rules, procedures and mutual relations are compensated by private agreements on regulation of illegal trade and illegal border crossing.

The described situations related to illegal trade illustrate unpreparedness of formal institutions – customs, border and other agencies – to provide and regulate those trade operations which connect people living in cross-border territories and satisfy the needs of local communities of the two countries. The Regional Human Development Report emphasizes the low level of mutual trade between Central Asian countries which demonstrates a great significance of trade barriers in cross-border areas⁴⁵.

43 A. Nuraliev. "Measures on Improvement of Border Trade Organization in the Republic of Tajikistan". – Dushanbe: the Ministry of Economic Development and Trade of the Republic of Tajikistan, 2014..

44 Border Trade: Evaluation of Crossing of the Border between Uzbekistan and Kyrgyzstan. – Bishkek: OSCE, Central Asian Free Market Institute, 2011.

45 Trade and Human Development. A series of analytical notes on human development for Central Asian countries. – Regional UNDP office for Europe and the CIS, 2014.

Migration

Today labour migration is one of the most important factors of economy development and employment of citizens of Kyrgyzstan. Due to a number of reasons related to the seasonal factor of work of some migrants, visa-free regimes and illegal migration it is hard to estimate the number of migrants from Kyrgyzstan precisely.

All surveys show, however, that the number of citizens of Kyrgyzstan working abroad is over 500,000 people. For example, according to the data of the Federal Migration Service of the Russian Federation 508,213 citizens of Kyrgyzstan officially resided in the territory of Russia in 2014⁴⁶. In addition, the inflow of money transfers in Kyrgyzstan is huge.

In 2012 money transfers comprised 30 per cent of the GDP. From 2012 the share of remittances to the GDP has steadily shrunk, but in 2015 the volume of remittances comprised 22 per cent of the GDP. (see Figure 1.16.).

As for the positive aspects of labour migration, its main economic effect is based on the reduction of unemployment and deficit of balances of payment through remittances. For many families remittances are the only means of subsistence.

Moreover, results of surveys show that remittances play an important role in poverty reduction⁴⁷. The results also emphasize the long-term effects from migration and remittances depend on whether the money is used to pay for expenditures or for investment in physical and human capital⁴⁸.

Today, in the opinion of experts of the Centre for Integration Studies of EDB⁴⁹, remittances are used mostly for consumption (which is significant for maintenance and increase of the standard of living and poverty reduction); however, they make a great potential for growth of savings, and as the result, for financing private investments. Besides, migrants returning home bring new business skills and technological ideas.

At the same time, Kyrgyzstan's entry into the EAEU, expansion of trade cooperation and change in the migration legislation has directly affected the position of labour migrants. When Kyrgyzstan ratified entry into the EAEU many limitations were cancelled, including issues related to labour migrants.

For example, patents and special work permits; exams on language, culture and history; and competence of law competence have been cancelled.

Terms of stay of labour migrants without registration EAEU members states have been increased. Labour migrants from Kyrgyzstan do not have to provide verification of educational documents, they have obtained the right for equal social security and separate benefits for free medical service⁵⁰.

46 Labor Migration and Labor-Intensive Branches in Kyrgyzstan and Tajikistan: Possibilities for Human Development in Central Asia. – Saint Petersburg: Center for Integration Studies of EDB, 2015.

47 Beyond 2015: Migration, Remittances and Human Development in Central Asia. UNDP discussion paper. – UNDP: 2015.

48 Trade and Human Development. A series of analytical notes on human development for Central Asian countries. – Regional UNDP office for Europe and the CIS, 2014.

49 Labor Migration and Labor-Intensive Branches in Kyrgyzstan and Tajikistan: Possibilities for Human Development in Central Asia. – Saint Petersburg: Center for Integration Studies of EDB, 2015.

50 Aliev S.B. Labour Migration and Social Security of Workers in the Eurasian Economic Union. – Bishkek: EAEU, 2016.

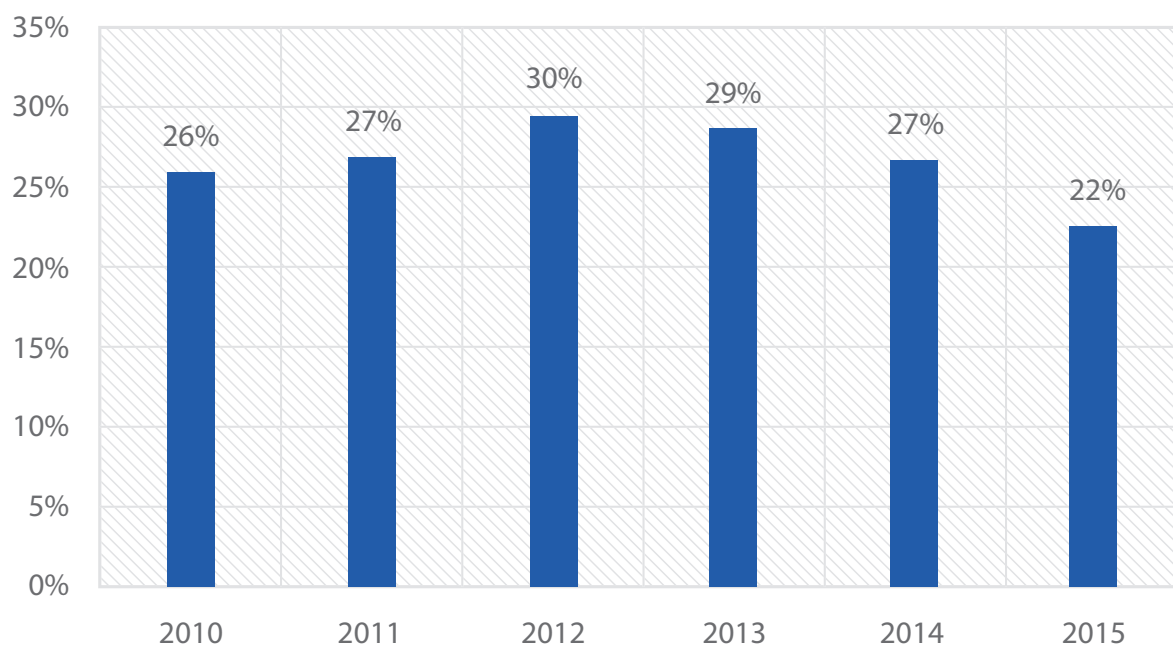


Figure 1.16. Migrants' Remittances, % GDP⁵¹

Source: Calculations of the authors based on the data of the Balance of Payment of the Kyrgyz Republic for 2015

The benefits obtained from Eurasian integration in the labour market and social security suggests that the number of labour migrants from Kyrgyzstan will increase in future. This, in turn, requires noting several negative aspects of migration.

First, the brain drain from the country will increase; however, there are many job advertisements and vacancies for highly professional citizens⁵² inside Kyrgyzstan.

51 Evaluation of remittances was carried out on the basis of revenues on the money transfer system, transfers to individuals via banks, postal money transfers, revaluation by the NBKR in the amount of 10 per cent for additional calculation of transfers brought into the country in form of cash (Balance of Payment of the Kyrgyz Republic for 2014, Table 15, Page 25).

52 Moving of healthcare workers to work in Russia can be a good example of brain drain. According to Ministry of Health data in 2015 the country needed 1,154 doctors. See <https://regnum.ru/news/society/1905903.html?forprint>. Meanwhile, according to O. Chudinovskikh from 2010 to 2012 Kyrgyzstan was the third country for the number of healthcare workers who obtained work permits, and the fourth on the number of doctors. See O. Chudinovskikh "On the Issue of International Migration of Medical Staff to Russia", http://www.mednet.ru/images/stories/files/materialy_konferencii_i_seminarov/2010/kadry2013/chudinovskikh1.pdf.

For example, an analysis of the areas of work for labour migrants from Kyrgyzstan suggest that there has been some change in the main areas of work. Previously migrants from Kyrgyzstan worked in construction, at markets and as individual entrepreneurs, now they are more prevalent in the service industry and migration of professionals with higher education has been increasing⁵³. Teachers and doctors are now in demand.

Taking into account the removal of barriers for recognized educational documents we can expect the increased migration of highly-trained professional specialists.

We should also note the lack of working places for migrants returning to Kyrgyzstan, an increasing load on the healthcare system (because work conditions are often too difficult).

In the opinion of experts, during the country's development, labour migration is viewed as a positive phenomenon for the state while possible negative consequences are not taken into account.

Second, migrants who work abroad for a long period of time do not make social contributions to the budget of Kyrgyzstan which can later result in problems with provision of pensions. Today the EAEU does not regulate pension issues; however in future as the integration progresses a unified pension system can be created.

According to the Report "Pension Mobility as Part of the EAEU and CIS"⁵⁴ this problem can be solved by creating a common pension space based on proportional accrual principles.

According to this report a system of accounting of labour migration and migrants' work experience in different countries should be created, and mutual settlements between pension funds of different countries in the region should be carried out.

Among the cultural aspects of migration processes we should note the loss of traditional and family values, and breakup within the local culture. At the same time migrants' lack of awareness about their rights, obligations, basics of labour legislation and migration procedures are still urgent.

On the whole, it is possible to conclude that the free movement of migrants increases the volume and flows of remittances which has a positive influence on economic and human development in Kyrgyzstan. The migration policy, developed as part of the Eurasian integration, will improve living conditions of migrants in receiving countries and promote growth of their income.

Additional income received by migrants' families will allow them to not only finance current expenditures but also have savings and invest in human capital assets. However, Kyrgyzstan needs to use the advantages of a more liberal legislation and cheaper workforce to a greater extent to create an attractive investment climate.

Simultaneously the employment policy should be examined to take into account the needs of labour market. Besides, the Government should take into consideration separate issues of employment and adaptation of returning migrants.

53 Joining of the Kyrgyzstan to the Customs Union: Possible Impacts on Economy and Migration Processes of the Country/ K. Umurzakov, D. Poletaev, S. Khasanova – Bishkek: 2014.

54 Pension Mobility as Part of the EAEU and CIS. - Center for Integration Studies of EDB, 2014.

In general, it is necessary to mention that benefits from trade development are important for the entire society.

However, it is essential to understand that there are no guarantees of benefits from trade expansion and that trade itself can lead to significant expenditures for some people in the process of adaptation to its conditions, and in some cases for the economy of the country as a whole⁵⁵.

In this regard, it is necessary to implement a complex policy targeted at benefiting from trade development, increasing of potential of human development institutions and their interaction.

Recent surveys aimed at revelation of deep factors of long-term sustainable human and economic development show that institutional structures play the role of such factors.

This point of view has replaced views that saw investment to human capital assets as the main source of the economic growth and, moreover, considered economic and human development as equal phenomena, regarding economic prosperity determines human development.

1.2.1. Institutional System Targeted at Interaction of Human Development and Trade

The latest trends in the study of institutional interactions show that it is the state institutions that form the basis for both economic and human development. In turn, human development has its own impact on economic growth by increasing welfare, and the growth of human development values set special requirements for the condition of the institutional environment.

In Section 1.2., we have already discussed the theme of institutions as part of models of the trade impact on human development.

As a result it can be concluded that there are sustainable interactions between different indicators which describe various sides of human, economic and institutional development. Some results describing these interactions are given below.

1. There is no doubt today of the existence of strong and statistically significant correlation between the quality of national institutions and the level of economic development. It is the quality of the institutions itself (for example, of the legal system) that is now considered as one of the main differences between the economic growth of countries. So, for example, according to different estimates an improvement of quality of institutions by one per cent leads to increase of the economic growth rates by 0.1 percentage points⁵⁶.
2. As the global competitiveness index includes the quality of institutions as one of the twelve indicators, surveys have been conducted on the relation between the human potential

55 Making Global Trade Work for People. –UNDP, 2003.

56 Rodrik D., Subramanian A., Trebbi F. Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. NBER Working Paper No. 9305 (2002). Citation according to L.M. Freinkman, V.V. Dashkeev, M.R. Muft yakhetdinova. Analysis of Institutional Dynamics in Countries with Transitional Economy// M.: Institute for the Economy in Transition, 2009. See also A. Radygin, R. Entov. Institutions and Economic Growth: Modern Theoretical Approaches, <https://www.hse.ru/pubs/share/direct/document/69533932>.

development index and the indicator of the quality of institutions used for calculation of the global competitiveness index. It was revealed that if the quality of institutions is increased by 1 point the human potential index increases by 0.718 points⁵⁷.

3. The majority of social capital research illustrate that social capital also promotes economic growth. S. Knack and P. Keefer showed that a boost in confidence to public authorities by 1 percentage point spurs economic growth by over 0.5 percentage points. R. La Porta, through econometric analysis, argued that a boost in confidence by 1 percentage point promoted more effective judicial decisions by 0.7 percentage points and reduced corruption by 0.3 percentage points.

Therefore, the quality of the institutional environment is a determining factor of development. Moreover, it is the institutions that create additional effects by influencing various sides of human and economic development.

One of the most well-known indicators of public governance quality which evaluates various sides of institutional development is the worldwide governance indicators that cover six main aspects of public governance (see Table 1.9).

Table 1.9. Public Governance Indicators: the Kyrgyz Republic

	2005	2010	2015
Anti-corruption control	-1,2	-1,1	-1,1
Effectiveness of public governance bodies	-0,8	-0,6	-0,9
Political system stability and absence of violence	-1,1	-1,0	-0,9
Quality of regulatory institutions	-0,9	-0,3	-0,4
Quality of legal institutions	-1,1	-1,3	-1,0
Citizens' rights and accountability of public authorities	-0,8	-1,0	-0,5
Calculation: average value	-1,0	-0,9	-0,8

Source: <http://info.worldbank.org/governance/wgi/index.aspx#home>

Note: (-2.5) – minimum value, +2.5 – maximum value

Although Kyrgyzstan's rating in Figure 1.9. on public governance are significantly lower than the maximum values, certain progress must be noted in this area. This progress is most noticeable in the following areas:

57

Citation according to K.I. Nikitina. Influence of Quality of Institutional Environment on Human Potential Development// Economics and Management in the XXI Century: Development Trends, 2015.

Box 1.5. Population Confidence Index (PCI)

The population confidence index is an integral index comprising three components: personal confidence of the population in public and municipal authorities; personal satisfaction of the population with activities of public authorities and local self-government authorities; corruption level in the evaluated authorities from a respondent's point of view.

The requirement to evaluate population confidence in public authorities is stated in Resolution "On Evaluation of Effectiveness of Activities of Public Authorities of Executive Power and Local Self-Government Authorities of the Kyrgyz Republic" and in the provision on the population confidence index. The index methodology elaborated by the National Institute of Strategic Studies (NISS) was used as the basis for quarterly evaluation of activities of public authorities using opinion polls conducted in Kyrgyzstan. In 2014 the methodology was updated; and now it will be measured by the agencies on PCI statistics once in six months rather than quarterly. According to the updated methodology the corruption index has been measured since 2015.

Measurement of the population confidence index at the national level is carried out on the basis of a sample interview of the population of all seven oblasts and Bishkek and Osh cities. Sampling is conducted among 3,600 people taking into account the sampling admissible error +/- 5 per cent (400 people in each administrative-territorial unit). The index value is calculated as the difference between the shares of positive and negative answers of respondents. Correspondingly, this index ranges between -100 to +100.

Source: National Statistical Committee

- Citizen's rights and accountability of public authorities;
- Quality of legal institutions;
- Stability of the political system and absence of violence.

These processes undoubtedly promote human development, increase human capital assets and reduce social inequality because they provide stability and predictability of development, implement democratic values of governance and put issues of human rights protection under judicial control which in accordance with these data increases its effectiveness. Compared to 2010 data, however, a decline has been noted on two indicators: "Effectiveness of public governance authorities" and "Quality of regulatory institutions".

Taking into account the rather modest results in fight against corruption, which are described below, these factors in many ways explain the delay of the economic growth, which is considered in the next chapter.

There are significant challenges in the public governance system. Human development and the role of trade are significantly determined by the state structure, political regime, and form of the government, which form economic laws, create and provide effective rights of ownership and this way influence the development policy.

In Kyrgyzstan, according to the constitution, political parties are capable of influencing the development and formation of formal, informal and procedural institutions of human development and trade. They cannot, however, clearly determine which institutional possibilities will be created for reaching development priorities established by the national strategic documents.

As the government is formed by the Parliament it becomes evident that such position in party programme documents is also reflected in the activity of executive powers. Section 1.1 above provides information about results of government activity which demonstrates that human development issues are not a priority on the development agenda and low values are explained by insufficient managerial competences of public formal institutions.

Despite the improvement of the “Quality of legal institutions” indicator its low level critically influences the key characteristics of the national investment climate which is important for both the activity of entrepreneurs and for attraction of new companies to the market.

Poor quality of regulatory institutions show weak institutionalization of regulatory impact analyses among public governance structures. In many cases this analysis is carried out informally. For example, the rate of patent changes for various types of activity after the new edition of the Tax Code was adopted in 2009 was not evaluated.

However, the gender analysis carried out later⁵⁸ showed that the rates for patents of so-called “women’s” types of activity, including small trade, trade from stands, trade in bakery products increased.

Traditionally “men’s” types of activity, including car repair, furriery and other were not changed. Therefore, the influence of a policy, including a fiscal one, is always gender-related and has different impact on various groups of interests.

The appearance of the informal institution – the shadow economy – and its scope, which according to estimates of the survey, conducted at the request of the Ministry of Economy, is around 40 per cent of the GDP. This can serve as an illustration of the ineffectiveness of public governance institutions. The share of trade enterprises working in the shadow economy is 18.3 per cent⁵⁹.

In 2015 the Government discussed the level of the shadow economy. Some experts stated that it reached up to 48 per cent of the GDP. The shadow economy, using various channels, gradually ruins the basics of human development.

Employees do not have social protection; income of companies working in the shadow sector are limited due to unwillingness of their owners to increase the sizes of operations; the export potential of such enterprises is minimal; corruption is huge and leads to erosion of public institutions.

The state should continue their efforts to reduce the shadow economy by pursuing the policy of patronage and fear, creating stimuli for enterprises and entrepreneurs to operate legally and gradually strengthen the impact administrative mechanisms on entrepreneurs working illegally.

To support the thesis of confidence in public authorities stated above it should be noted that the Kyrgyz Republic is the only country in Central Asia which uses the **Population Confidence Index (PCI)** to evaluate the quality of work of public institutions (see Box 1.4.).

58 Situation Analysis: Possibilities and Barriers for Women’s Entrepreneurship Development in Villages. – Bishkek: UNDP, ADB, 2010.

59 Study of Shadow Economy in the Kyrgyz Republic. – Bishkek: Investment Round Table, 2012. The study was conducted by request of the Ministry of Economy as part of CBEM Project of the World Bank.

This government initiative demonstrates the capability of formal public institutions to react to civil society requirements to increase the transparency the activities of public authorities and build new practices of interaction between the state and citizens.

Figure 1.17. shows the PCI dynamics. According to the diagram, the population confidence has considerably increased from the moment these data were first published⁶⁰.

This partially speaks about the achievement of some public governance reform to which top leaders express loyalty. At the same time we cannot say that the maximum value obtained at the end of 2015 is high.

If we convert this index into percentes we can see the following: 61 per cent of respondents expressed confidence, and 39 per cent still do not trust the public authorities. Trust has further eroded in 2016 which is connected to the economy and partially to the problems the EAEU experiences this year.

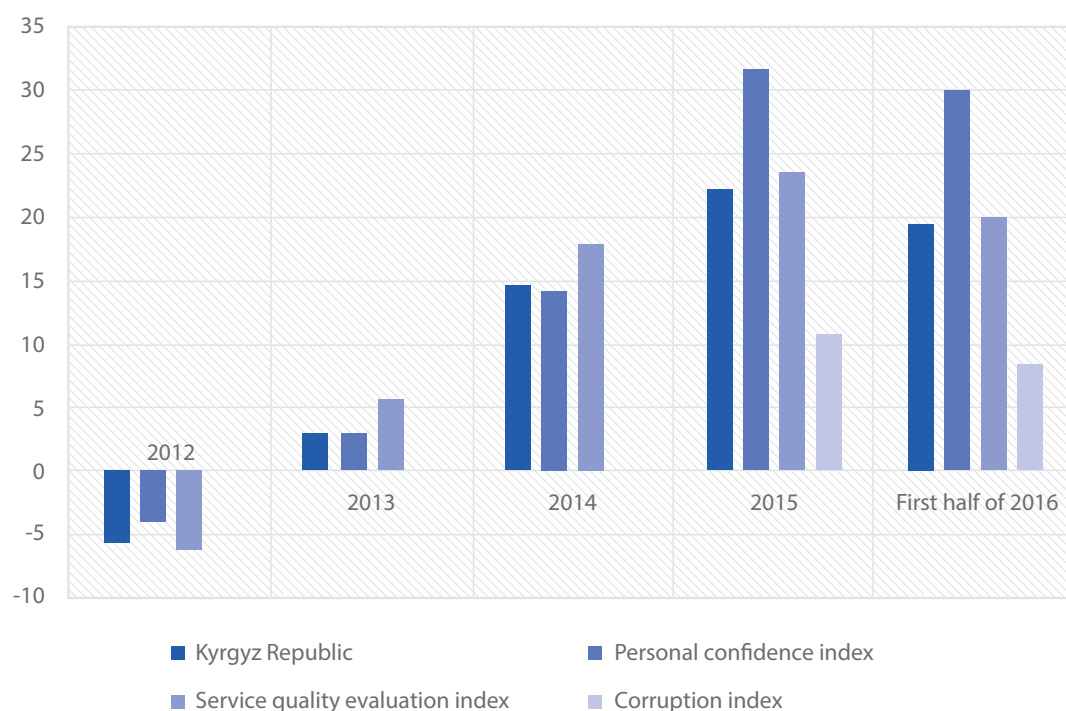


Figure 1.17. Dynamics of Components of the Population Confidence Index

Source: National Statistical Committee

Note: The data are given on conclusions of the last survey of each year except for 2016

60 It is worth noting that these studies are always discussed in the Internet. Some researchers speak about overstating of received data. See, for example, <http://rus.azattyk.org/a/26846042.html>. In their turn, public authorities, especially those which received negative assessment, bring arguments in favor of understatement of results. See, for example, <http://knews.kg/148441/mvd-indeks-doveriya-naseleniya-kyrgyzystana-k-organam-vnutrennih-del-povyisilsya/>. It seems that the quality of this poll fully corresponds to the quality of statistical information which the NSC publishes on any other issues.

Figure 1.17 shows that the increase of the PCI was mainly due to people's growing confidence in ministries and institutions, while the role of other indices is less important. In addition, the corruption component is significantly lower than other components.

Table 1.10 contains data on certain public authorities which are related to the theme of the report. According to the table the index of citizens' confidence in governance institutions has considerably increased, especially in such institutionalized areas as management of the economy, environment and social development.

At the same time, the fact that average values of the confidence index components on the stated public authorities are lower than general nationwide values looks disturbing.

This is especially noticeable in relation to the corruption component which according to the results of the first six months of 2016 has reduced to values close to zero. It is also worth emphasizing that four out of nine of the aforementioned institutions have negative corruption index values, and there are only ten such institutions or 25.6 per cent out of 39 institutions which are included in the cumulative corruption index calculated by the NSC.

Table 1.10. Population Confidence Index: Public Authorities (selectively)

Public authorities	Population Confidence Index					Corruption Index	
	2012	2013	2014	2015	6 months of 2016	2015	6 months of 2016
Total on the Republic	-5,5	2,9	14,7	22	19,5	10,8	8,5
Ministry of Economy	-17,5	-4,3	8,7	18,4	16,6	6,2	4,2
Ministry of Education and Science	13,4	21,2	26,8	20	16,4	-5,5	-5,5
Ministry of Health	9,7	14,6	22,3	5,6	4,1	-20	-24,2
Ministry of Social Development	1,0	7,4	21,6	29,3 ¹	22,4	20,1	15,2 ¹
Ministry of Labour, Migration and Youth	-11,4 ²	-2,3	17,4	18,5 ³	19,9	18,7	13,7 ³
State Agency for Environment Protection and Forestry	-9,5	-2,9	8,8	13,9	16,6	10,7	12,7

State Customs Service	-16,7	-7,8	5,9	6,7	4,2	-13,3	-18,6
State Inspectorate for Veterinary and Phytosanitary Security	-12,5	0,9	10,8	10,2	8,9	4,5	-0,7
State Inspectorate for Ecological and Technical Security under the Government of the KR	-19,1	-2,6	8,7	15,9	15,2	12,5	9,9
Average value on the aforementioned public authorities	-7,0	2,7	14,6	15,4	13,8	3,8	0,7

Source: National Statistical Committee

Note: 1. Assessment was given by the newly established Ministry of Labour and Social Development,
 2. Assessment was given by the former Ministry of Youth, Labour and Employment,
 3. Assessment was given by the newly established State Migration Service.

The indices highlight that the population's demand for services/fulfilment of functions of an authority is most important. Especially important are those authorities, services or functional duties which have a direct influence on the life of each citizen and those which are in great demand with the population.

It is necessary to emphasize again that confidence and service quality indices in the vast majority of institutions are considerably higher than corruption indices. The situation looks paradoxical taking into account significant under financing of public officials whose qualifications are very high and the creation of sustainable corruption mechanisms as part of rendering services by public authorities.

It is worth paying attention at the lowest values of the PCI of the State Customs Service and State Inspectorate for Veterinary and Phytosanitary Security which is especially important to the work of foreign trade institutions and tariff and non-tariff barriers discussed in the next chapter.

It is important to note that confidence levels, measured by the PCI, are an informal institution for alternative control and enforcement tools.

It has been recognized that behaviour based on the idea that its members will act normal and honestly by showing readiness for mutual support according to common norms, cultural traditions, customs, ethical values is considerably more effective than the behaviour based on the rational calculation and formal rules which should be constantly elaborated, coordinated and defended in court.

A lack of confidence in society is equal to the introduction of an additional tax for all forms of economic activity which societies with a high confidence level do not have⁶¹.

61 Fukuyama F. Confidence, Social Virtues and a Way to Prosperity. – Moscow: 2006.

Corruption Index evaluations have a lot in common with international evaluations. The Kyrgyz Republic was among the 20 per cent of countries with the worst Corruption Perception Index values and was ranked 136 out of 177 countries⁶². A number of studies have been carried out in the country dedicated to corruption as a dominating informal institution which is not only a barrier to economic growth but also a factor for human development degradation. Income through corruption comprises 10 per cent of the GDP. All branches of the economy pay a corruption tax. For example, in trade it amounts to 3 per cent, and in healthcare it is around 5 per cent of revenues⁶³. Compensation methods are widely used for corruption-related expenditures and citizens must bear these expenditures compared to the petty corruption scale. Corruption is a parasite on traditional social relations yet there are common resources for fighting corruption which include entrepreneurship development and independent public organizations⁶⁴.

Institutionalization of corruption is taking place. According to entrepreneurs the following reasons cause corruption: “poorly regulated work of officials” (12.9 per cent), “weak judicial system, including execution of judicial decisions” (12.3 per cent), “impunity of corrupt politicians and government employees” (12.1 per cent)⁶⁵. This great number of informal corruption norms and rules required establishment of formal structures, and in 2015 by the Resolution of the Prime Minister a new Anti-Corruption Policy Department was established in the Government Office on the basis of the already existing human resources within the Ministry of Economy. These changes receive a positive assessment because they demonstrate a high level of anti-corruption policy formulation.

In addition, to the poor coordination of anti-corruption activities and the lack of agreement between the abovementioned institutions, it should be noted that the vagueness of mandates/functions of institutions engaged in fight with corruption as well as the lack of clarify about the nature of some institutions weaken the fight against corruption. Therefore, the institutions themselves should be legitimate and functional to have an effective impact on developing an anti-corruption environment.

Therefore, we can conclude that the quality of the institutional environment formed by the state has a direct influence on human development. If the state fails to pay attention to high-quality development of human potential, the risks of reducing county competitiveness increase.

Amind this ineffective process, the establishment of state institutions can promote citizens' active engagement into the development and decision-making processes as well as the control of public authorities. For example, after the events of 2010 a number of public supervisory boards were established under state agencies⁶⁶. The positive dynamics of the “Citizens' rights and accountability of public authorities” indicator illustrates the effectiveness of these institutions. Today the influence of public supervisory boards is determined not only increasing civic participation but also by the ability to conduct

62 It should be noted that the considered index is highly criticized due to the fact the methodology of its calculation is weak. See, for example: <http://transparency.org.ru/indeks-vziatkodatelei/blog>

63 Study of Shadow Economy in the Kyrgyz Republic. – Bishkek: Investment Round Table, 2012. The study was carried out upon the request of the Ministry of Economy as a part of “Capacity Building for Economic Management” Project of the World Bank.

64 Society and Corruption in the Kyrgyz Republic. – Bishkek, 2014// <http://www.osce.org/ru/bishkek/140511?download=true>.

65 Corruption in Kyrgyzstan: Scope, Reasons and Possibilities of Reduction. VB, 2014// http://mineconom.gov.kg/Docs/korrupsia/c___31_07_2014.pdf.

66 Decree of the President No.212 dated September 29, 2010 “On Improvement of Cooperation of State Administration Authorities with Civil Society”.

analyses of public authorities and recommendation of measures to strengthen the influence of public authorities on economic processes⁶⁷.

It can be concluded that various international ratings of institutional development show that the country has a number of institutional challenges to address and that further reforms to social institutional organization is necessary. Few recommendations from the state on policy measures determine and confirms Kyrgyzstan's place in the world trade index at 109 out of 138 countries. This index shows to what extent state institutions, policy and infrastructure promote free movement of goods through borders to their destinations,⁶⁸ and evaluates the capabilities of economies to stimulate trade; it also highlights areas which urgently need improvement through implementing new measures.

It is also important that people's involvement in development processes strengthens institutions and increases people's confidence. Qualitative and effective functioning of the institutional system creates the basis for successful implementation of economic reforms. However, this requires investment in human development to be able to convert reforms into economic growth.

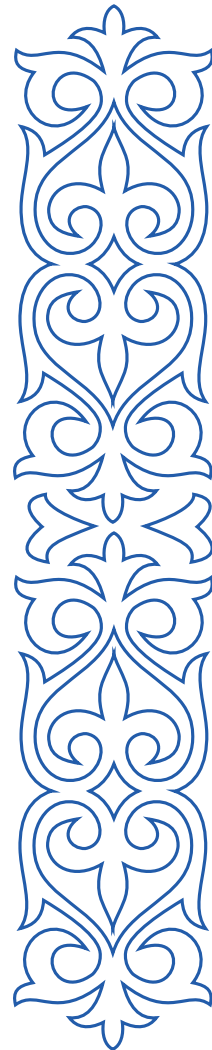
This chapter has determined the interactions between trade and human development and paid individual attention to the complex influence of institutions. However, trade development plays one of the most important roles in this process as it creates basic stimuli for economic growth which then transforms into investment in human capital assets and dynamic human development. The next chapter will discuss this role of trade in the economy.

67 See, for example, Materials of the official website of the public councils of public authorities of the Kyrgyz Republic. – http://www.ons.kg/index.php?act=ons_material&id=296.

68 Factors which influence the involvement in trade are united into 4 categories: access to markets, administrative infrastructure on the border, transport and communication infrastructure, business climate. The characteristics of these factors is shown in the border trade case.

CHAPTER 2

TRADE IS A TOOL FOR SUSTAINABLE ECONOMIC DEVELOPMENT



Chapter 2. TRADE IS A TOOL FOR SUSTAINABLE ECONOMIC DEVELOPMENT

2.1. Role of Trade in Economic Development of the Kyrgyz Republic

Both domestic and foreign trade promote economic growth. First, trade is a part of the national economy and its expansion promotes the growth of the gross domestic product. Second, foreign trade via export-oriented growth expands markets and leads to the specialization of the economy and to positive effects from economic expansion.

Third, export-oriented growth apart from generating employment creates conditions to increase employees' qualifications by attracting new technologies and innovations. Fourth, trade is a mechanism which supports the strongest aspects of the market economy, for example, by creating price signals which establishes conditions for cross-sectoral transfer of capital to more effective sectors. Fifth, trade often serves as a source for the initial accumulation of capital which is then invested in other economic sectors.

2.1.1. Tendencies of Economic Development in the Kyrgyz Republic

As shown below trade has a great share in the GDP and its role becomes even more significant in the context of the problems faced by Kyrgyzstan's economy.⁶⁹ By summarizing various facts we can say that these problems can be described as follows:

1. Kyrgyzstan has failed to reach sustainable and high rates of economic growth due to shocks taking place every three to four years, which can be considered as the specificity of the country's economic development. Since 2001, the republic has demonstrated several periods of negative annual growth rates (Figure 2.1).

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Attention should be paid to the fact that this section intentionally analyzes trade and problems related to it for a longer period than in other sectors. Without the context of the early 2000s in many cases sources of the current economic problems and the role of trade compensating for such issues are not clear. In a number of cases shorter periods are analyzed which is done by making a special emphasis on specific problems

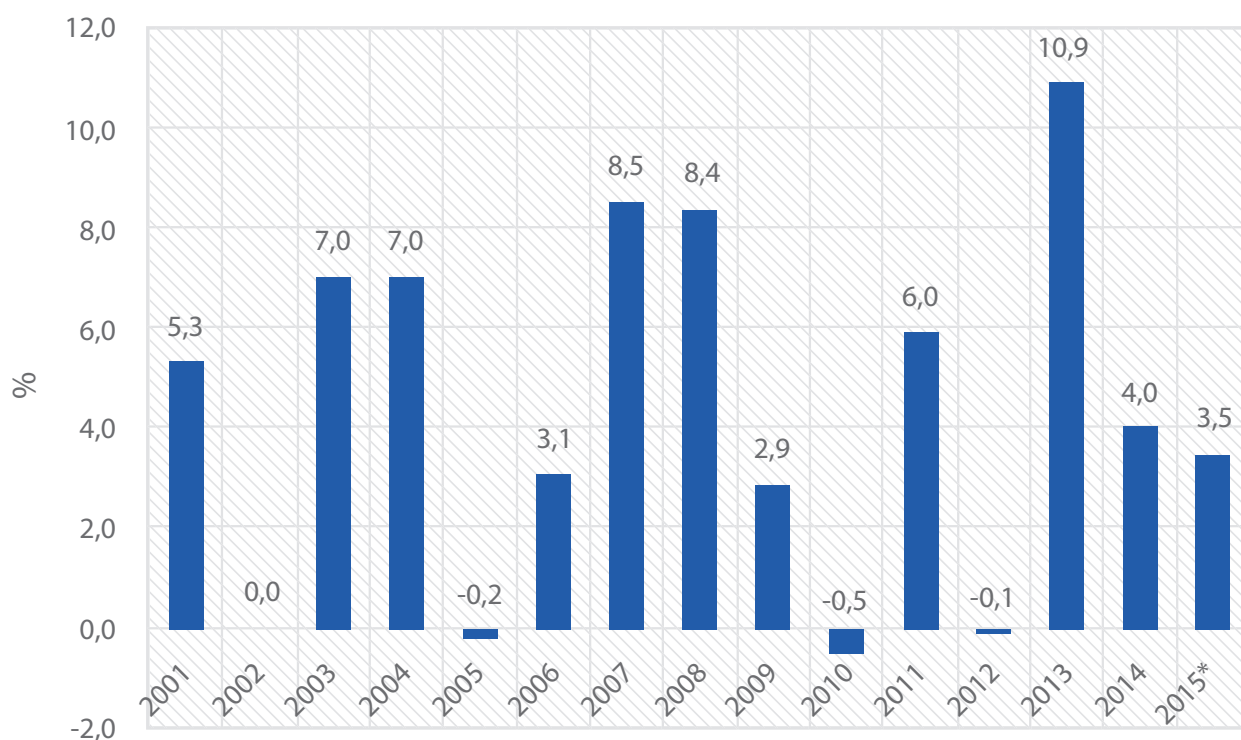


Figure 2.1. GDP Increment Rates, %

Source: National Statistics Committee, *preliminary data.

2. The shocks mentioned above are notable for the fact that they have demonstrated weakness of the investment climate and low quality of public governance. The first type of shock is related to the suspension of production due to technical problems at the Kumtor mine which has affected enterprises contributing 5 to 10 per cent of the GDP and up to 50 per cent of export value in various years. Such strong dependence of the economy on one investment project only shows the low quality of investment climate because despite the abundance of possibilities the politicians have discussed throughout the years other investment projects of similar size have not been elaborated. Political turbulence account for the second type shock as according to a number of estimates political events of 2005 and 2010 broke and changed corruption rules for business which resulted in enterprises closing.

3. The country has faced serious structural problems, the dynamics of the GDP structure has had both positive and negative moments. For example, if agriculture's reduced share of the economy, indicates the need for structural reformation of the economy, in order to reduce the number of production enterprises with low added value, then industry's reduced share of the economy is more likely a signal about errors in national economic policy (Table 2.1.). In addition, around half of the added value of the industry is produced at the Kumtor enterprises. It is worth emphasizing that the processing industry without the Kumtor enterprises⁷⁰ fails to demonstrate growth although traditionally this sector serves

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It is worth emphasizing that that raw materials at the Kumtor enterprises are processed as alloys with a high concentration of precious metals this production, is included into the processing industry

as the basis for diversification of production and green economy growth. At the same time trade, hotel and restaurant businesses, which make a special contribution to human development, are growing.

Table 2.1. GDP Structure, Separate Years, %

Types of activity	2001	2005	2010	2015
1. Agriculture, hunting and forestry, fishery	34,5	28,5	17,4	14,0
2. Industry, including:	23,1	17,3	16,9	15,1
2.1. Mining operations	0,5	0,6	0,6	0,9
2.2. Processing industry	17,6	12,9	16,9	12,1
• Kumtor enterprises	n/a	9,3	10,5	7,1
3. Construction	3,8	2,7	5,5	8,3
4. Trade, hotels and restaurants	13,0	19,1	17,2	18,7
5. Transport and communication	4,2	6,6	9,1	8,2
6. Other types of activity	14,2	15,0	19,8	23,6
7. Taxes on products	7,2	10,8	10,2	12,1

Note: Other types of activity include finances, real estate operations, public governance, education, healthcare and other services

Source: National Statistical Committee, calculations of the authors

4. Despite changes in human resources to a certain extent reflect changes in the GDP, a number of trends seem disturbing. Although agriculture has lost its leading role in the GDP, it still has the greatest share of labour resources (Table 2.2.). However, the service sector, except for those given in the Table 2.1 (see “Other types of activity”), has remained nearly at the same level as in 2001. At the same time, industry, which had kept increasing its share in

according to the State Classifier of Types of Economic Activity-3. This note can be helpful from the point of view of understanding of the statistical basis for discussion of the role of the mining industry in sustainable development stated in Chapter 3..

labour resources, began reducing it after 2010. This reduction took place at the expense of the processing industry – the branch which should play a critically important role in creating of working places that require high qualification. The mining industry, a priority of which much has been discussed of late, is not the main branch that creates working places, which can also be said about the Kumtor enterprises.

Table 2.2. Sectoral Structure of Labour Resources, %

Types of activity	2001	2005	2010	2015
1. Agriculture, hunting and forestry, fishery	52,9	38,5	31,2	29,3
2. . Industry, including:	7,9	10,2	10,4	9,6
2.1. Mining operations	0,5	0,6	0,8	0,4
2.2. Processing industry	6,2	7,9	7,8	7,4
• Kumtor enterprises	n/a	0,08	n/a	0,13
3. Construction	2,4	7,4	10,7	11,3
4. Trade, hotels and restaurants	11,7	16,9	18,7	19,7
5. Transport and communication	3,6	5,6	6,6	8,2
6. Other types of activity	21,4	21,4	22,4	21,8

Source: National Statistical Committee, calculations of the authors, on Kumtor: www.kumtor.ru (monthly updated data is used, available on this website).

5. Positive trends observed during the period from 2001 to 2010 have stagnated. During these years the most remarkable changes took place among labour resources. The agricultural workforce shrunk. In fact by 2010 the number of agricultural workers decreased by 246,600 people. Construction, trade and industry attracted workers from the agricultural area (see Table 2.3.). During this period working places were created not only in trade, which remained the leader in working place creation, but also in construction, industry and other sectors. However, some concerning trends began to occur. Agriculture, which was the least productive area, was starting to increase the number of workers while the industry was reducing it.

Table 2.3. Absolute Change of the Number of Labor Resources
in Separate Sectors, Thousand People

Branch	2001-2005	2006-2010	2011-2015
Agriculture, hunting and forestry, fishing	-138,9	-100,6	-9,7
Industry	+69,7	+22,0	-7,4
Construction	+110,3	+86,4	+25,4
Trade; repair of cars, household and private goods	+113,6	+35,9	+27,1
Hotels and restaurants	+35,9	+33,8	+17,1
Transport and communication	+52,3	+31,8	+45,6
Other types of activity	-47,7	+21,4	-16,8
Total:	308,7	166,7	108,4

Source: National Statistical Committee, calculations of the authors

Note: "+" – growth, "-" – reduction

In general, this indicates that the early economic structural transformation started in the beginning of 2000s has not been fully completed. It is also worth mentioning that in the Kyrgyz Republic during a long period of time internal demand, originating from a considerable increase of remittances by migrants to the country and external support, left GDP growth rates behind. However, the supply of the goods failed to meet such growth of the demand. If we summarize the reasons for economic problems they could be described as⁷¹: 1) distorted markets, 2) poor-quality business and investment climate, 3) lack of mechanisms and institutions targeted at structural transformation of the economy.

1. Lack of mechanisms and institutions targeted at structural transformation of the economy

Inability of agriculture to meet external demand: The low growth rate of the physical volume of agricultural products (1.4 per cent on average per year from 2004 to 2015),

⁷¹ For details see Report "Analysis of Recommendations of Donor Projects" prepared by the Consortium as a member of the International Business Council and Public Organization "State and Business Partnership Support" as part of Local Development Program financed by the USAID, Bishkek, 2013.

and in particular agricultural exports, highlights the sector's inability to form supplies of required quality and in required quantity demanded by partners. These are the after effects of reckless reforms dissolving kolkhozes and sovkhoses through which a great number of farms were created (321,856) with an average plot area 2.7 hectares transferring the right of land ownership to farmers⁷². It was not so much the privatization process as the lack of institutions which could stimulate farms to become cooperatives using various mechanisms that was at fault.

Exhaustion of possibilities of re-export economy. By 2010 Kyrgyzstan turned into a re-export centre, which became an obstacle for further economic growth. Long before the establishment of Customs Union borders it had been clear that an economy based on re-export would sooner or later face large problems related to border closure. The localization of Chinese production enterprises could become an alternative to such economy. However, an official position has never been declared on this until recently⁷³. Localization can be carried out only in case an effective structural policy is pursued which assumes availability of effective development institutions.

Thoughtless attempts to create development institutions. Attempts to create development institutions faced either the problem of ineffective design or corruption in these institutions. This was foremost related to the Central Agency for Development, Investment and Innovations (CADII), established in 2009 and was responsible for elaboration of structural economic redevelopment strategies. Under the aegis of the CADII, the Development Fund, a financial institution, was established, which fulfilled the CADII functions. These institutions had unreasonably ambitious goals. According to its functions CADII became an agency superior to the government, and therefore public control of this institution was low. Finances of the Fund were placed in financial organizations which were under the control of the administration and this way served special interests.

During recent years a number of attempts have been made to create development funds using mainly the EAEU financing. For example, the Kyrgyz-Kazakh Investment Fund with capital of USD 101 million did not work. At the same time the Russian-Kyrgyz Development Fund (RKDF) began its activity. As of November 2016, 589 projects amounting to USD 167 million were financed⁷⁴. Its activity has been improving. For example, in April 2015 conditions of the Programme of Crediting of Small and Medium-Sized Business via commercial banks were softened.

Establishment of the Investment Promotion Agency. The Investment Promotion Agency (IPA) has been recently established. According to surveys conducted by the World Bank,⁷⁵ identifying the correct structure, authorities and functions of the IPA would allow for a considerable increase in the investment inflow to the country. In 2015 the inflow of direct foreign investment reached 1,573.2 mln USD which was the maximum value

72 Abdurasulov Y. Agriculture of Kyrgyzstan" Modern State, Problems and Development Ways, 2011. http://open.kg/upload/analytics/abdurasulov_analytics.pdf.

73 At the session of Jogorku Kenesh which took place on April 28, 2016 the Prime Minister Sooronbai Jeenbekov added that the Government would continue the active work on such export directions as China, Iran and countries of South-Eastern Asia, including on creation of joint enterprises on the basis of existing idle enterprises in our Republic. <http://www.gov.kg/?p=74483&lang=ru>.

74 Materials of the official website of the Russian-Kyrgyz Development Fund. – <http://www.rkdf.org/>

75 Materials of the official website of the World Bank on investment climate study. – <https://www.wbginvestmentclimate.org/toolkits/investment-generation-toolkit/>.

during the entire history of the country's independence. Although the role of the IPA in this achievement is huge, there are a number of issues which prevent the Agency from increasing the effectiveness of its activity⁷⁶, these include: a lack of political support and necessary financing, insufficient communication with the business community and low qualification of employees.

Absence of a long-term sustainable strategy for entrepreneurship development⁷⁷.

The current law on state support of entrepreneurship is not being implemented. Public entrepreneurship programme development prescribed under this law prescribes have not been elaborated. The State Fund for Support of Small- and Medium-Sized Businesses which carried out financial, investment and consultation functions was transformed into a microcredit company. Support from other institutions includes only the RKDF programme. Among other entrepreneurship support institutions there are guarantee funds with insignificant operational scope⁷⁸.

2. Low-quality business and investment climate

There are a lot of various tools to evaluate the country's business and investment climate. Figure 2.2. indicates the SME contribution to the GDP.

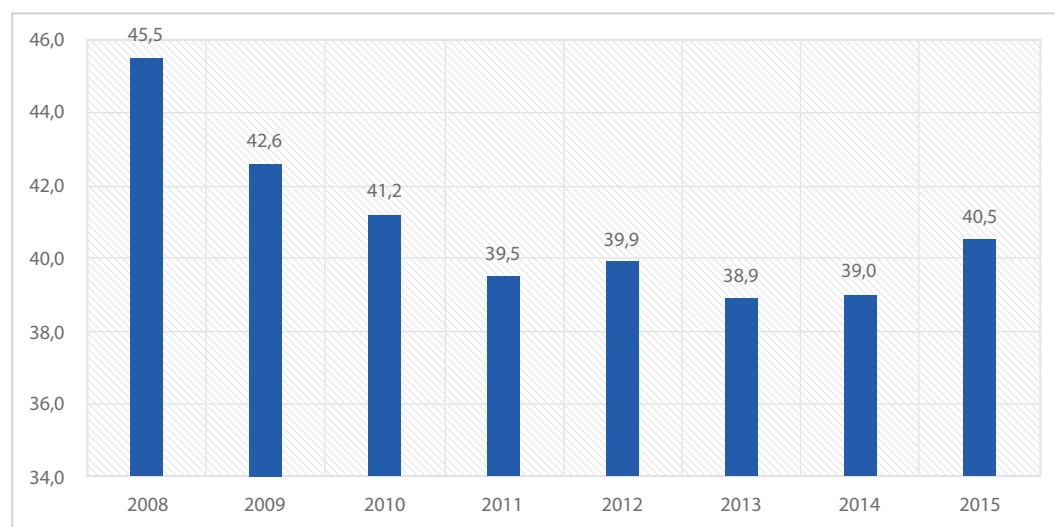


Figure 2.2. Share of the Volume of Gross Added Values of SME in the GDP, %

76 Today the inflow of direct foreign investment is not stable. According to the results of the first six months of 2016 a 31.5 per cent decline in this indicator has been observed.

77 More details see in the Legal Analysis of Legislation Regulating Small and Medium-Sized Business in the Kyrgyz Republic. – Bishkek, 2013.

78 In June 2016 Kyrgyzstan adopted the Concept of Development of Guarantee Funds of the Kyrgyz Republic till 2020. According to this document, there are six guarantee funds in the country. These funds are considered regional (municipal) due to the fact they were established by the local self-government authorities. During the period from 2011 to 2015, 404 guarantees were provided for the amount of KGS 39 million, which could not cover even a tenth of guarantees required for small business. See <http://cbd.minjust.gov.kg/act/view/ru-ru/98557>. At the same time it is worth noting that the Government established "Guarantee Fund" open joint stock company during the same period, and over KGS 72 million were provided for formation of the authorized capital. In addition, it is planned to supplement the authorized capital of this Fund with KGS 200 million by the Asian Development Bank. See http://mineconom.gov.kg/index.php?option=com_content&view=article&id=6881&catid=63&lang=ru.

Figure 2.3. which illustrates the number of SME is even more indicative. During the period from 2009 to 2012 the number of small enterprises reduced which contradicted politicians' statements in support of small business. However, it seems that problems related to the investment climate are best illustrated by the trend of reduction of the number of legal entities – medium-sized enterprises – since 2008 because a foreign investor usually suggests creating a medium-sized or large business. However, it is worth mentioning the improvement of the situation in 2015 which could be recognized as a sustainable trend.

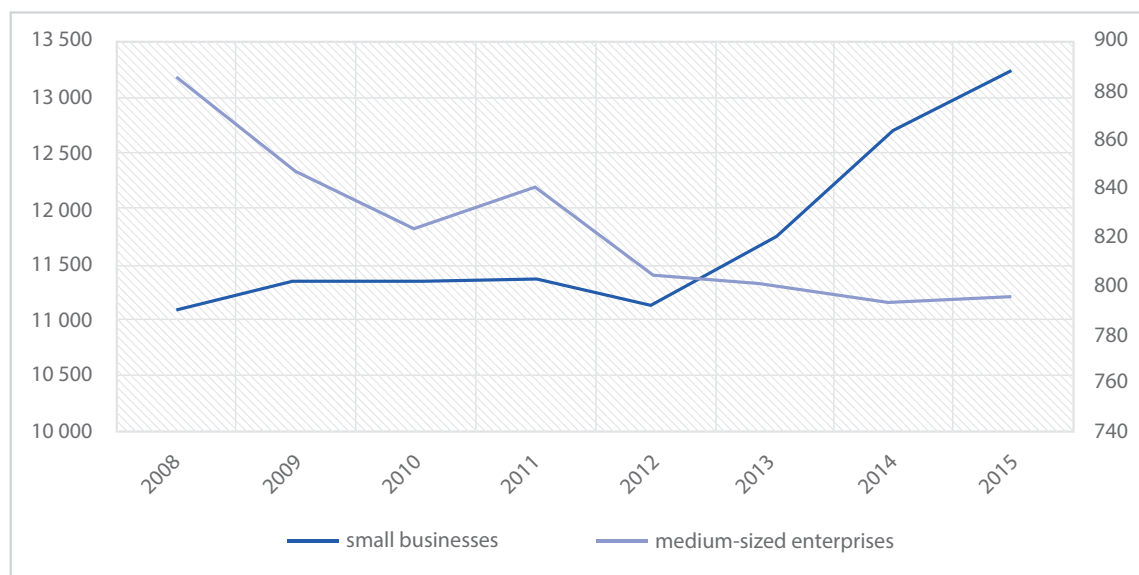


Figure 2.3. Dynamics of the Number of Small and Medium-Sized Enterprises in Kyrgyzstan, #.

Source: National Statistical Committee

Note: The number of medium-sized enterprises is shown along the auxiliary axis

Hindering investment growth exists in various areas: legislation and its execution, lack of regulatory and legal basis for development of infrastructure investment projects, ineffective institutional structure of attraction and promotion of investment, high level of corruption in regulatory authorities, and vulnerability of rights of ownership of entrepreneurs, which ultimately leads to the loss of economic stability.

Survey results confirm these points and are reflected in values of international indices, such as the competitiveness index, economic freedom index, transition index and results of the Business Environment and Enterprise Performance Survey (BEEPS).

Kyrgyzstan's success, according to the World Bank's "Conduct of Business" rating, is rather limited and related to the index's business environment evaluation methods and indicators. It is important to note that this index measures legislative aspects of the business climate, not execution of laws. In comparison to two similar indicators – the protection of minorities' rights (42 out of 190 countries in the "Conduct of Business 2017"⁷⁹ rating) and protection of



Determination of the moisture content of maize corn, Osh Oblast, photo by Azamat Kasymov



Cheese production, Naryn Oblast, photo by Mirlan Dyikanbaev



Manufacture of dairy products, Naryn Oblast, photo by Mirlan Dyikanbaev



Production of natural juices, Osh Oblast, photo by Mavliuda Khodzhaeva

ownership rights (120 out of 138 countries on the competitiveness index)⁸⁰ this can serve as an example of business climate strength.

Box 2.1. Internet and Trade: Internet Trade

It has been established that 10 per cent expansion of Internet use in an exporting country expands the nomenclature of products in the turnover between two countries by 0.4 per cent. A similar growth of Internet use indicators in two countries increases the total value of bilateral trade for one type of product by 0.6 per cent on average.*

Internet trade in Kyrgyzstan has two problems to solve. The first and the most important problem is related to delivery and logistics. In Bishkek if logistics is well-organized, the goods can be delivered on the same day an order is placed for such goods; some Internet stores successfully do that. However, we cannot say the same about logistics in the regions. To develop fast delivery of goods in the regions serious investment is required. Development of electronic commerce in the regions is proportionate to the level of Internet coverage. The higher the level, the greater the coverage of the population with electronic commerce.

The second problem is related to the low level of online payment implementation. There are certain possibilities already, but at the same time there are still objective factors which inhibit extensive implementation of such possibilities. Such factors include: lack of experience in the majority of the population, including the fear, low level of use of electronic money and bank cards.

These specific problems are supplemented with the low level of penetration of the Internet in the oblasts, power interruptions, unreliable work of the postal service and other issues. Solution of these problems will lead to the synergy effect and electronic commerce growth. However, development of the modern trade mechanisms endangers those groups who survive thanks to small trade. And this is a challenge to the government rather than trade.

Source: *2016 World Development Report,

** "Internet Trade Kyrgyzcha: David and Goliath", – Mr. R. Djabaev, Director of aMart, <http://kiber.akipress.org/news:10>

3. Distorted markets.

There are no fully formed markets (capital, labour or land markets) in Kyrgyzstan.

Capital market. The capital market can be characterized by a high level of state regulation. Legislative and regulatory reforms, including creation of independent accountable authorities, are not fully completed. Market infrastructure is at a low level. Just a few new financial products have been elaborated in this market recently.

80 Global Competitiveness Index: Index Component «1.01 Property rights», The Global Competitiveness Report 2016–2017.

Land market. Despite significant reforms to implementation of private land ownership this market also has a number of limitations which do not allow market mechanisms to operate fully⁸¹. Ownership rights for land plots intended for agricultural use are limited by a mandatory requirement of growing and/or processing agricultural products on such plots. Foreign citizens and legal entities cannot exercise this right of ownership. In addition, there is a legislative limitation related to a citizen of Kyrgyzstan whose spouse is a citizen of a foreign state or a stateless person.

The right of pledging agricultural land in credit institutions adopted a few years ago is not effective yet due to the lack of mechanisms of exercising this law. Moreover, these institutions can have only a temporary right of ownership for agricultural land during a period of two years.

Labour market. There is excess working population in Kyrgyzstan's labour market. The general level of unemployment has ranged from 8 to 12 per cent in recent years. Some experts believe that the unemployment level in is considerably higher and reaches 20 per cent while the official unemployment rate (the number of officially registered unemployed citizens) does not exceed 3 per cent. The existence of spontaneous markets demonstrates ineffective infrastructure of the labour market⁸².

2.1.2. Domestic Trade: Response of Trade to Economic Problems

Macroeconomic theory pays great attention to international trade by considering domestic trade as a common but separate sector of the economy. However, the role of domestic trade is a lot wider than the macroeconomic context given to it⁸³.

Trade is historically one of the first sectors formed after a person stopped using subsistence production. As soon as specialization developed so did exchange or trade. It means trade has always signalled fundamental economic changes. It is worth mentioning the role of trade in the solution of challenges which occurred during the transition from the command to market economy.

Despite a 50 per cent decline in production and population's income during the 1990s, it was the provision of goods to the market that served to absorb social protest. This specificity of trade persists even during hard times. During a war or crisis, as it happened when the Union of Soviet Socialist Republics (USSR) collapsed, trade remains the sector which continues to fulfil its functions.

Attention should be paid to the peculiarities of trade during the Soviet period. Trade in its contemporary meaning did not exist in Soviet Kyrgyzstan. Due to internal features inherent to the command economy it could not satisfy the consumer market. There was no competition at the market. The majority of goods were sold in stores at fixed prices. In addition, day-to-day goods were subsidized at the expense of high trade mark-ups on other goods. At the same time trade existed despite administrative pressure. It was either

81 See the Law of the Kyrgyz Republic dated January 11, 2001 No.4 "On Management of Agricultural Lands" as amended on July 30, 2016.

82 Analytical Report of the Ministry of Labor, Employment and Migration of the Kyrgyz Republic for 2011.

83 There are few works in Kyrgyzstan considering domestic trade problems. More detailed data on trade problems is given in the work by Professor E.F. Samigullin, *Domestic Trade of Kyrgyzstan: Status and Prospects*. – Bishkek, 2012.

formal or informal. Formal trade resulted in many distortions especially during the last years of existence of the USSR. Many goods were scarce; there was lack of assortment; queues were everywhere.

In such an environment “special stores”, intended for representatives of party and government administration, opened. A special form of relations developed which was peculiar to the command economy, enabling profitable connections which allowed purchasing certain things. However, other relations also existed, market forms of trade, such as trade at kolkhoz markets, underground production and sale of goods. Speculation with goods, which is criticized by many societies, was practised everywhere in the Soviet Union.

During the Soviet period it was a reflection of all-round deficit and command administration of the economy. This was the beginning of the process which resulted in the dramatic trade expansion in the early 1990s. With a 50 per cent of GDP reduction and nearly 10 per cent of reduction of the number of employed people in the country by 1996 the number of people working in trade increased from 82,900 thousand to 159,600 thousand, that is it almost doubled. The processes taking place in the 1990s created the foundation for development of modern types of trade in Kyrgyzstan which became possible due to trade liberalization. This was “learning-on-doing” time.

Formation of bazaars in Central Asia and especially “Dordoi” and «Kara-Suu» in Kyrgyzstan during the 1990s is described in the book by B. Kaminski and S. Mitra “Skeins of Silk : Borderless Bazaars and Border Trade in Central Asia”. A few important conclusions have been made:

- modernization of wholesale and retail trade sectors took place in Kyrgyzstan;
- markets were integrated into transborder value added chains;
- markets became platforms and logistic centres for re-export.
- special role of markets and border trade was emphasized in poverty reduction through reduction of prices for goods and creation of working places, especially for women.

Domestic trade has been transitioning to the new development stage recently. Actually there are two main challenges that encourage its development.

The first challenge is creation of modern retail enterprises and trade store chains. It should be noted that this stage is already behind, at least, in large cities. Existing enterprises compete with markets because they cater to the middle class, which is in the process of formation now, goods of the best quality and at a higher price, but are sold in a better condition. This source of this budget income is most reliable for the state.

Markets have faced a challenge caused by limitation of re-export as the result of joining the EAEU which is described in more detail below.

However, both the markets and modern store chains will face one more challenge in the future – the Internet trade (see Box 2.1.). A number of Internet stores have already started its work: Svetofor, Link, Enter, Compic, Fashion.kg and others. These stores are making a new niche now.

Domestic trade is a school of entrepreneurship. People without qualifications often choose to work in first is trade, and it is noticeable from the data on structural shifts shown above.

During trade the process of acquiring experience is quite complicated because this experience is acquired through contacts with multiple suppliers from various sectors. An entrepreneur obtains productive entrepreneurship skills by studying the specificity of activity, acquiring knowledge about sales markets and in many cases receiving information about innovative trends. Many large entrepreneurs coming from this sector have gone through the transformation of the 1990s.

Domestic trade is the main signal for entrepreneurs regarding inter-branch flow of capital. In addition, not only new enterprises are created but new qualification skills are acquired. For example, there are few ICT enterprises in Kyrgyzstan; however, there are lots of specialists who carry out repair of complicated devices due to sales of information and communication technology (ICT) goods.

This sector, to a great extent, determines the standard of living of the population in the oblasts, especially in Kyrgyzstan where there were no large interregional trade enterprises for a long period of time. In many cases trade enterprises are the basis of subsistence for small regions.

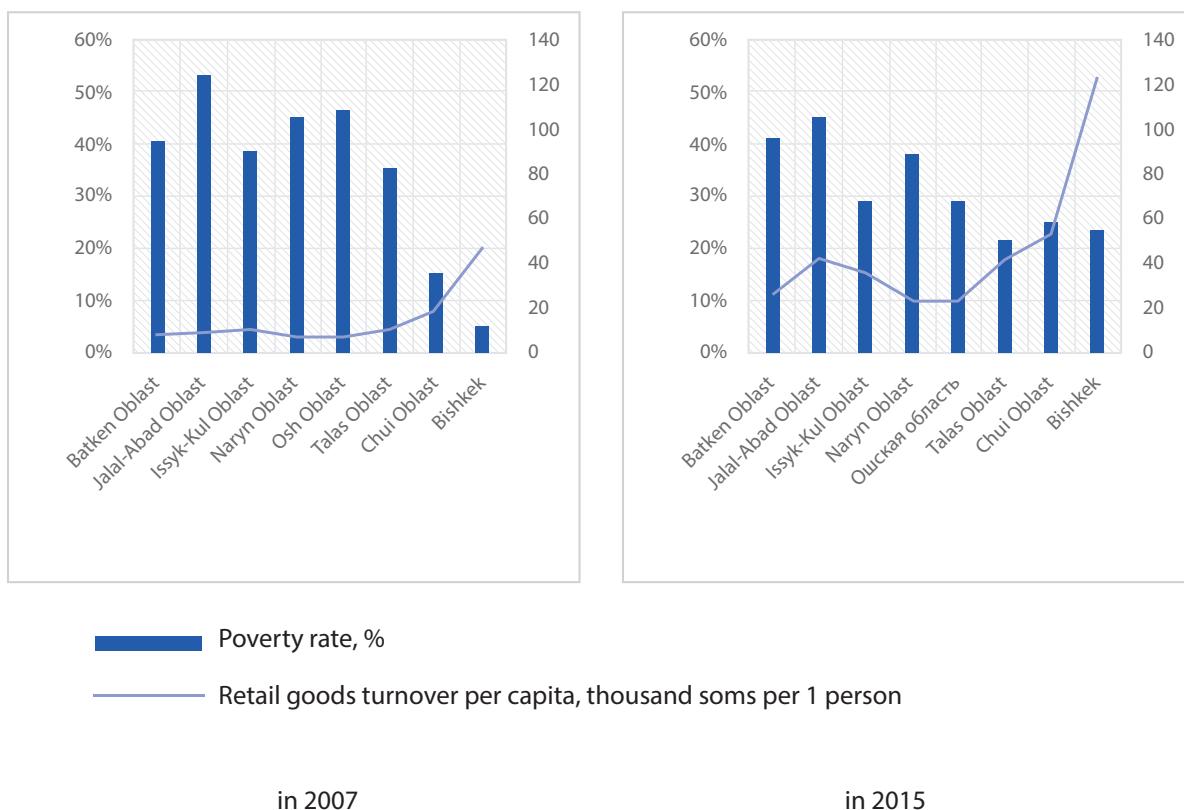


Figure 2.4. Poverty Rate and Retail Goods Turnover per Capita

Source: National Statistical Committee, calculations of the authors

Figure 2.4 shows data on dependence of the poverty rate in the oblasts on retail goods turnover which confirm that trade contributes to poverty reduction. According to these graphs the higher level of poverty in the oblasts corresponds to lower levels of retail trade turnover per capita.

According to Figure 2.4, in 2007 this dependence was considerable while in 2014 it became weaker⁸⁴.

This emphasizes the role of trade, especially at the early stages of economic development or of crisis recovery. Then after creation of other poverty reduction instruments, for example, social benefits, the role of trade became weaker but still remained significant. These data demonstrate that even during hard economic times it is necessary to rely on trade as it will allow either to solve or soften social problems.

In some cases trade can be the only communication channel for remote mountain villages. Trade, including foreign trade, has become a source of resources through budget income increases which was later spent on social issues⁸⁵. The trade sector makes a huge contribution to the effectiveness of industrial enterprises by releasing them from non-core activity in form of retail sales which otherwise would increase expenditures and risks. Last but not least is that trade has turned out to be the first to change attitude towards customers, which has improved and is expressed in friendly service in stores and at markets. This aspect influences a country's general culture to a significant extent.

There is a figurative definition of the financial system of the country as a "blood circulatory system". Following this logic and taking into account all the strengths of trade some authors define trade as the "heart" of the economy. Although from the point of view of the economy trade is first of all a transmission mechanism of the economy which creates sectoral relations.

Analysis of quantitative data of trade should be considered through the lens of the aforementioned qualitative evaluations of the role of trade in public life. Against the background of slow economic growth rates and weak transformations in the country, trade has confirmed the active role attributed to it in promotion of the market economy and as a specific compensator of the economic problems.

Figure 2.5. shows the share of trade to the GDP clearly growing. At the same time three periods can be allocated during which this dynamics changed to the opposite. Before 2006 the share of trade to the GDP noticeably increased due to a number of factors. First, the growth was caused by the increase of re-export volume. Second, the growth of remittances, including mainly import trade operations, played an important role. Third, this growth took place simultaneously with a reduction of the share of agriculture and industry which faced serious structural problems.

84 The coefficient of correlation between the two indicators before 2010 was at the level of 83-88 per cent, but from 2011 it began decreasing and reached 45 per cent in 2014.

85 Unfortunately the data which illustrate the contribution of internal trade to the budget are not available.

During the second period (2006-2011) the share of trade started to decrease. This negative trend can be explained by introduction of limitations for re-export from CIS partners and by a recovery in industrial production, related to increased gold production at the Kumtor mine.

The third period (2011 – present), when the share of trade began to increase again, is the period when trade started adapting to the new conditions of Custom Union limitations.

Box 2.2. “Official” Definition of Trade

There are various definitions of trade. First, it is the trade that is around us, that we face in everyday life (such as in markets and stores) or retail domestic trade. Second, it is the trade that a person faces trying to buy or sell imported goods or when a person visits a country to buy certain goods and bring them to the another country to sell them. Third, it is wholesale trade that provides the supply of goods to stores. This trade is the most invisible for the population. All these types of trade are important for the economy and characterize various sides of trade.

A statistical definition of domestic trade is as follows: it is wholesale and retail sale of goods without changing the characteristics of such goods. As trade increases a product's added value the amount of mark-up less trade expenditures is included into the GDP. Foreign trade is the trade between economic agents of various countries which includes export and import of goods.

If we speak about the cost of goods, then the difference between these definitions is the following: domestic trade includes a part of the cost of goods while foreign trade includes the entire cost of goods crossing the border. However, there is also a connection between these definitions. The cost of export goods is included into the GDP as added value during the process of production of the goods in separate sectors, and as trade mark-up received from sale of these goods intended for export. Although import does not increase the GDP directly the mark-up from imported goods provides a noticeable addition to its value.

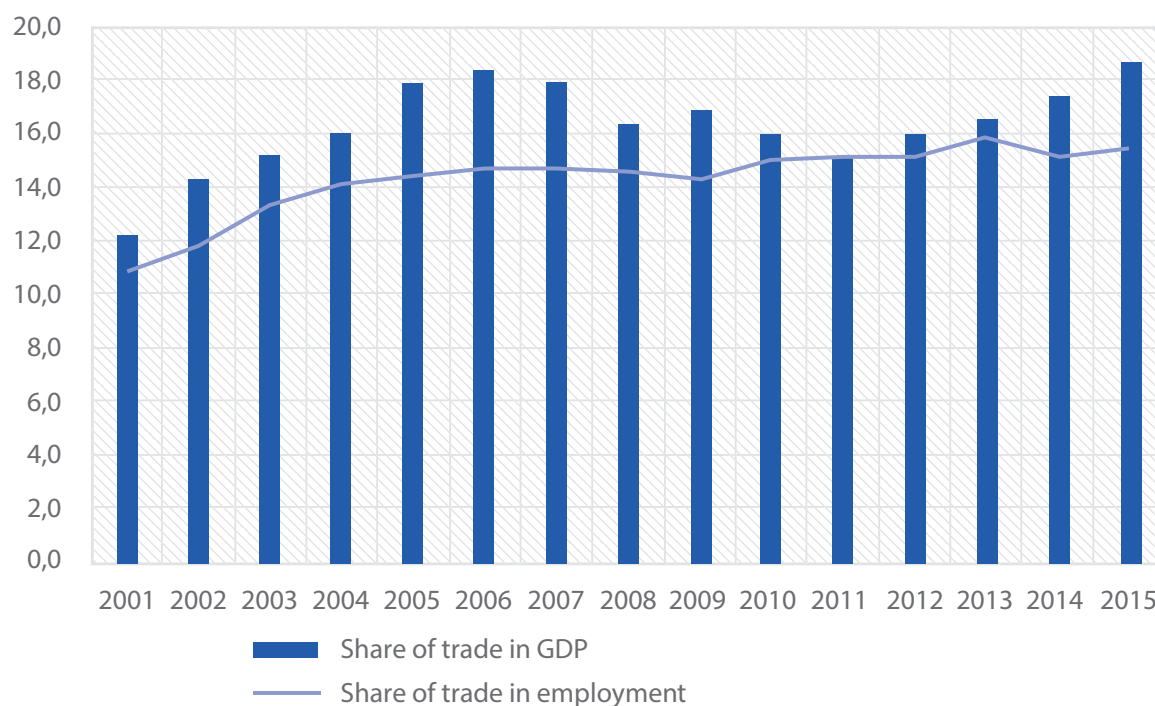


Figure 2.5. Share of Trade in the GDP and Employment, %

Source: National Statistical Committee.

Figure 2.6. demonstrates the economy's dependence on trade. From 2001 to 2015 the GDP growth rate, without taking into account trade, in twelve out of fifteen years was lower than the GDP growth rate. During this period the average contribution of trade to the increment of nominal GDP was 18.4 per cent, while during the period from 2012 to 2014 it exceeded 20 per cent.

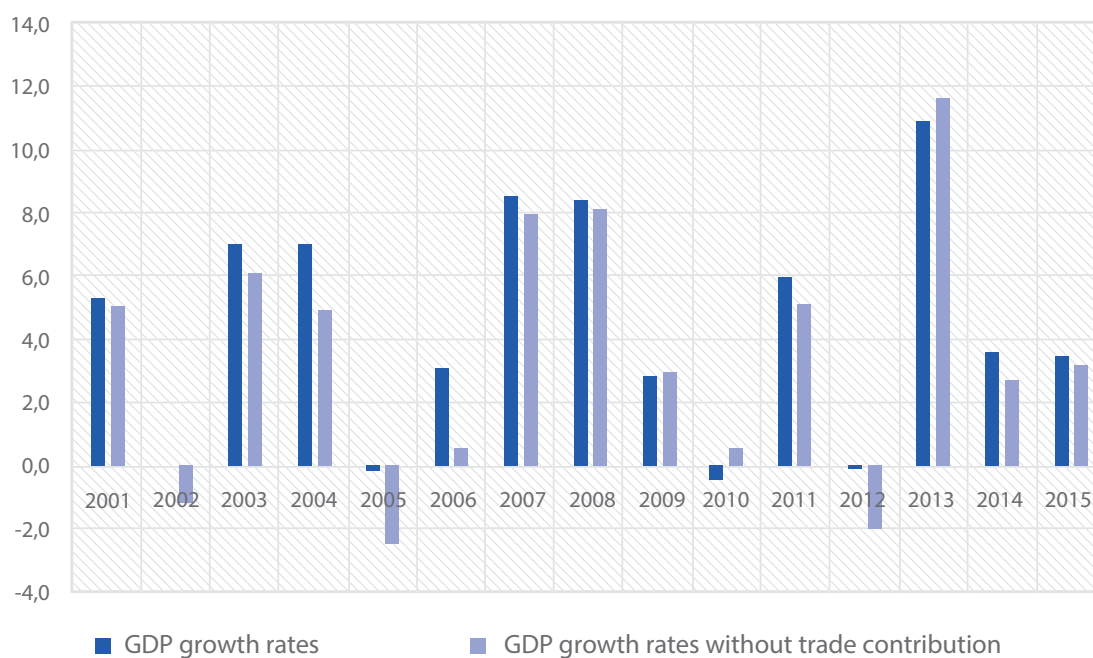


Figure 2.6. Rates of GDP Increment With and Without Trade Contribution, %

Source: National Statistical Committee, authors' calculations .

In addition, according to Table 2.3. trade was the main sector offering new working places during all these years

Economic growth connected to trade growth resulted in the growth of capital in this sector. Unfortunately statistics do not provide data on assets in the trade sector. However, statistics on credit by sector gives an indirect evaluation of the situation. Figure 2.7. shows the share of trade in the total credit volume.

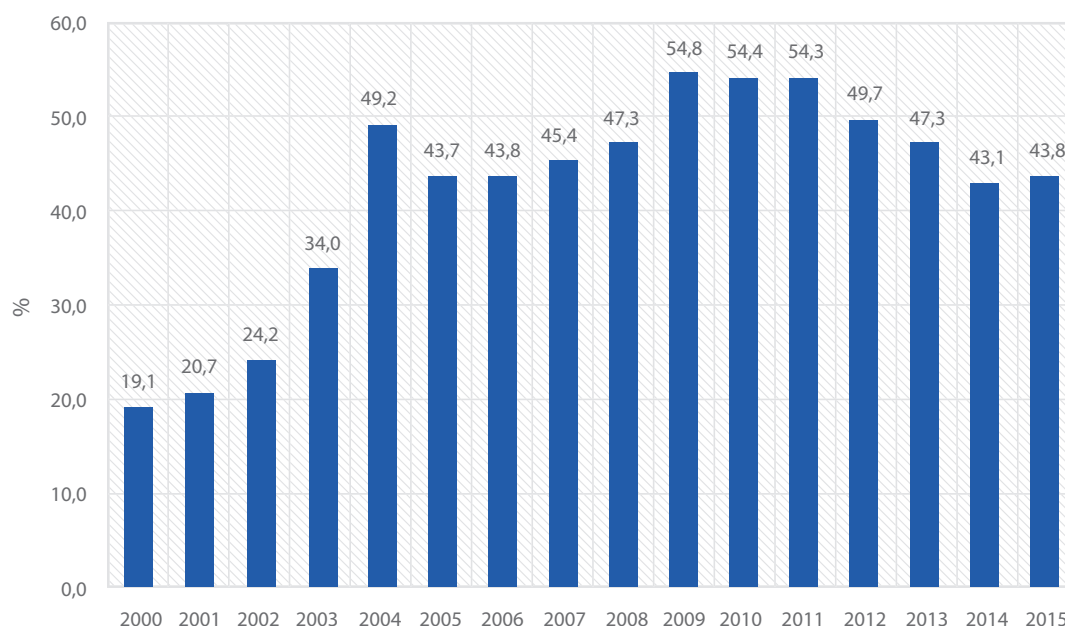


Figure 2.7. Share of Credits Provided for Trade-Related Purposes in the Total Volume of Financing Provided by the Banks, %

Source: National Bank of the Kyrgyz Republic

Before 2010 this sector's share in the credit market steadily increased. From 2010 to 2012 this sector received over a half of the total volume of finance. During recent years the share of trade has been decreasing due to the expansion of subsidized interest rates on credit for agriculture and due to the increase of industry financing. However the level of trade financing in 2015 exceeded the volume of finance provided to agriculture by two-and-a-half times, and industry by four fold. This generally demonstrates significant growth of the capital related to trade which, in turn, has created possibilities for additional flows of the capital to other sectors of the economy, for example, construction and service sector, and partially to industry.

2.2. Foreign Trade Development of Kyrgyzstan

2.2.1. Features of Foreign Trade Development

The previous section highlighted the role of domestic trade in the development of the country and its connection to foreign trade. Greater foreign trade obviously means increased domestic trade. Foreign trade of Kyrgyzstan has the following features:

- **Significant role of foreign trade for the economy.** From 2006 the volume of foreign trade turnover of goods and services exceeded the GDP volume. In some years it exceeded 140 per cent (see Figure 2.8.).
- **Decline of trade balance and export rates.** It is necessary to admit that from 2013 to 2014 the foreign trade growth rates shrunk and this negative trend continued for some time, especially for the export of goods (see Figure 2.9.).

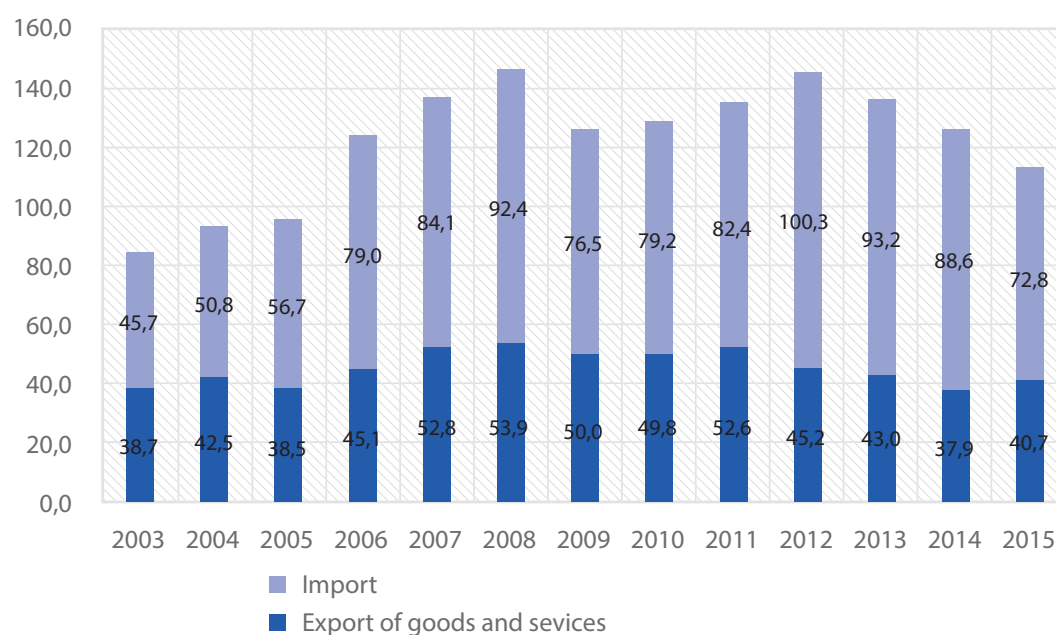


Figure 2.8. Trade Turnover of Goods and Services to GDP, %

Source: National Statistical Committee

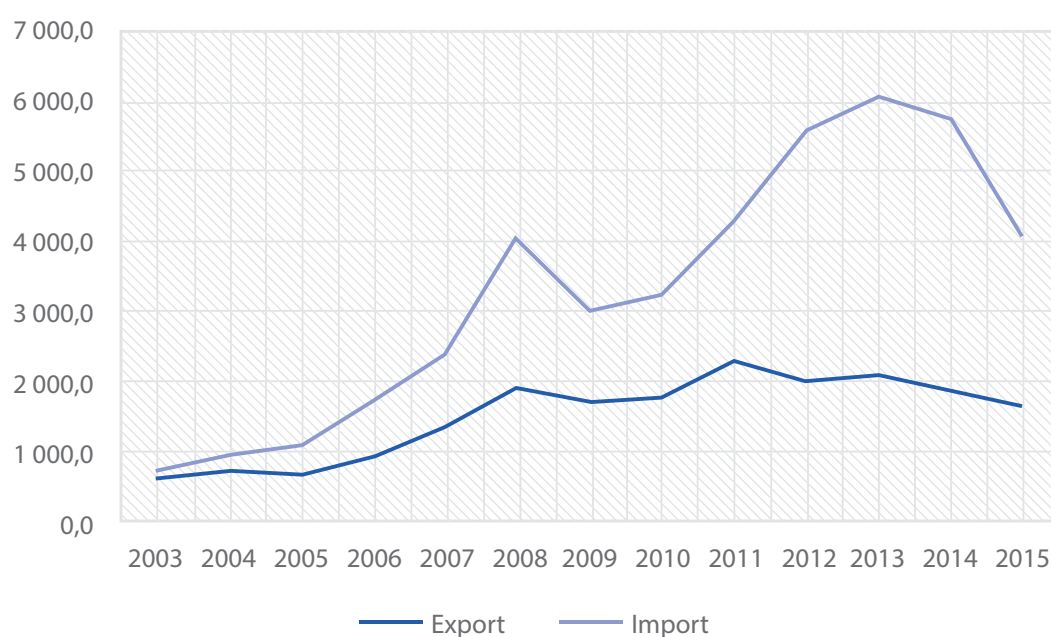


Figure 2.9. Export and Import of Goods (million US dollars)

Source: National Statistical Committee

- **The functional structure of export** (Table 2.4.) does not have any noticeable changes. The export was focused mainly on raw materials. The share of export raw materials and intermediary goods was over two-thirds of the entire export volume. An increase in the share of investment goods was observed but this trend was quite unstable.

The share of consumer goods increase in 2015, but this was against the background of a dramatic decline of the share of energy products. The absolute values of their cost even reduced. Taking into consideration the decrease of export and absence of noticeable changes in the functional structure it can be said that the export problems only emphasized the structural economic problems mentioned above.

Table 2.4. Functional Structure of Export, %

	2011	2012	2013	2014	2015	1 half year 2016
Total:	100,0	100,0	100,0	100,0	100,0	100,0
Consumer goods	33,6	36,7	36,4	32,4	40,2	40,0
Raw materials	3,7	5,2	3,3	5,4	3,6	2,9
Intermediary goods	51,6	31,0	36,5	37,5	44,6	43,3
Investment goods	2,9	6,0	3,7	4,0	7,5	10,7
Energy products	8,1	21,1	20,1	20,7	4,1	3,1

Source: National Bank of the Kyrgyz Republic, Balance of Payment for the first half of 2016

Note: The dramatic change in the structure in 2012 and 2015 can be explained by specificities of accounting of re-export oil products.

– **Compensating role of service export.** At the same time Kyrgyzstan should pay special attention to service export as its dynamics has in many ways compensated the decline of export of goods.

The dynamics of service exports show that before 2012-2013 the majority of the types of services demonstrated growth (see Figure 2.10). Although taking into account the amount of income generated from travel the main “compensating” items were these services.

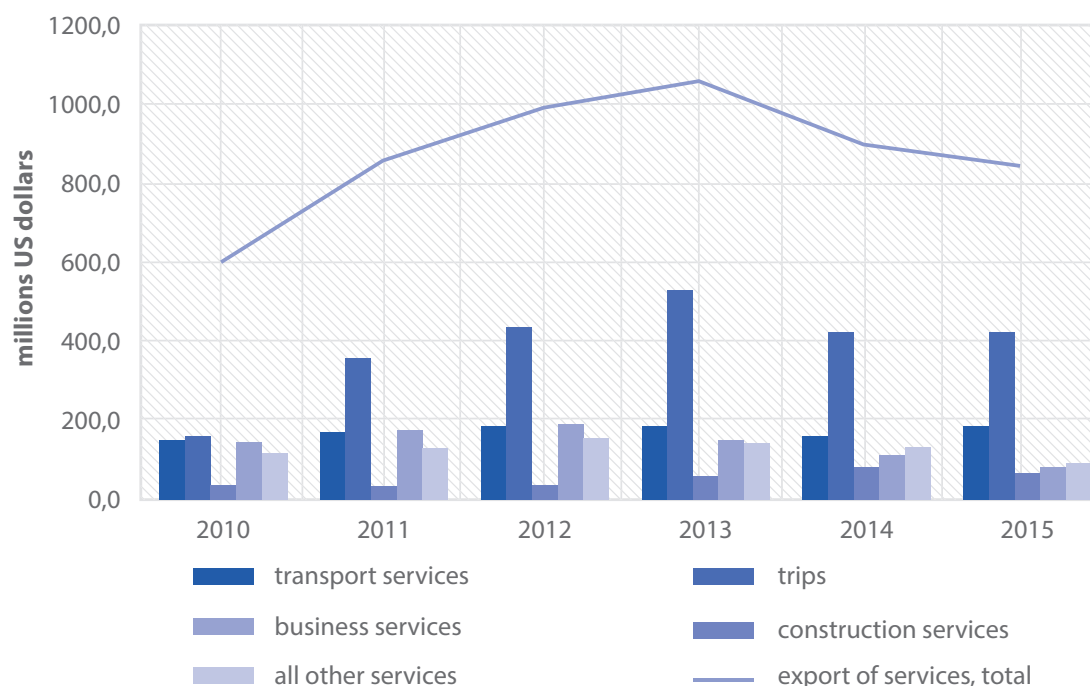


Figure 2.10. Dynamics of Service Export and its Main Items, millions US dollars

Source: National Bank of the Kyrgyz Republic

Box 2.3

Almaz, an entrepreneur from Chaldovar (border crossing village)

«There are some minuses from accession to EEU. Kazakhstan and Russia are stronger countries. If they supply here wheat by railway, than nobody buy our harvest. Because of our low competitiveness of our product. This I has already experienced, that we can sell to our neighboring countries products which grew in kitchen garden – tomatoes, cucumbers, raspberries, strawberries. People of Merke and Chimkent District of Kazakhstan buy all these products at the our bazaars. It is worse that now we depend on economies of other countries more: if US dollar raisen down in Kazakhstan – we immediately felt this. If I bring raspberry to the bazaar than nobody buy, because no Kazakhs as a result of dollar's rate growth».

A reduction of a majority of service export items during the latest analyzed year possibly shows an under exploitation of the country's potential in this economic sector.

Taking into account the specificity of this market and its distinction from the goods market the Government should consider promoting this sector abroad with a special focus on

tourism development which will increase export income and create working places for women without having a serious impact on the environment compared to other sectors.

– **Special role of import for development.** Except for the two past years the import growth rates in Kyrgyzstan were significant for a number of years. In addition to other macroeconomic influences which explained considerable foreign trade growth there were two factors which supported this growth. First, liberalization of foreign trade relations and a considerable reduction of import duties along with nearly open borders with CIS countries. Second, subsequent private investment to the market infrastructure which led to the creation of the two largest bazaars in Central Asia – “Dordoi” and “Kara-Suu” – with a turnover that exceeded the GDP of the country according to some estimates⁸⁶.

These bazaars serve as international hub markets, which spread outside the country in which they are located, just as markets of republican significance which became big commercial associations with infrastructure supporting both domestic and foreign trade. Besides, Central Asian bazaars play an important role in the regional and national chains of production and distribution and make a great contribution to strengthening economic relations between the Central Asian and other CIS countries. Support of the unique status of these markets should be the focus of the Government.

The analysis of the data given in Table 2.5. shows that certain changes took place in the import structure. To a certain extent the reduction of imported energy products was caused by lower prices for oil products from the middle of 2014. At the same time re-export of oil products to Tajikistan also was reduced. Increasing import of intermediary goods and raw materials was notable which could potentially result in an economic revitalization. In addition, the absolute and relative values of the cost of consumer goods decreased.

Table 2.5. Functional Structure of Import, %

	2011	2012	2013	2014	2015	1 half year 2016
Total:	100,0	100,0	100,0	100,0	100,0	100,0
Consumer goods	37,9	36,8	33,9	35,9	32,5	43,0
Raw materials	3,1	3,2	2,9	3,2	3,8	4,0
Intermediary goods	22,3	23,0	25,3	24,8	29,0	26,2
Investment goods	13,8	15,5	16,1	15,7	15,7	16,1
Energy products	22,8	21,5	21,8	20,4	19,1	10,7

Source: National Bank of the Kyrgyz Republic

86 Kaminski B., Mitra S. Borderless Bazaars and Regional Integration in Central Asia: Emerging Patterns of Trade and Cross-Border Cooperation. – 2012.

In addition, the budget income increased owing to the growth of foreign trade tax funds which became an important growth source, especially during the past decade, and due to social financing which was one of the basics of human development (see Figure 2.11).



Figure 2.11. Trade Taxes and Expenditures for Social Area, % to the GD

Source: National Statistical Committee

– **Re-export.** As it has been noted economic liberalization led to considerable growth of domestic and foreign trade volumes which made Kyrgyzstan the re-export centre of Chinese goods to CIS countries. It should also be mentioned that in addition to Chinese goods some Turkish goods were also re-exported to these markets. For many years Russian oil products were also re-exported to Tajikistan and other countries.

However, serious problems arose in trade with the Customs Union, which was founded in 2010 comprising Belarus, Kazakhstan and Russia, which established barriers on the re-export of Chinese goods.

It is worth emphasizing that re-export by itself is not a problem. On the contrary, it positively characterizes the economy and its business climate because it shows flexibility of its structures and institutions.

The problem is that it creates certain complacency in state institutions as employment places are created and it generates income without participation of the state. Early on in the development of the re-export model, the Government should have considered the consequences of using this model for economic development. In addition to the aforementioned book by B. Kamiski and S. Mitra there were few works on re-export theme published in Kyrgyzstan⁸⁷.

87 See Mogilevskiy R. Re-export Activity in Kyrgyzstan: Problems and Prospects. – Bishkek: 2012. Many conclusions given below have a lot in common with the conclusions of this work.

R. Mogilevskii research is one of those. One of the important conclusions of this work was the prediction of net losses of public welfare would be significant in case a unified customs tariff for the EAEU was introduced. In any case the issue of re-export support as a separate issue should have been considered by the Government but it seems that it was not.

In this regard, this report contains some evaluations of re-export to emphasize the importance of this economic phenomenon despite considerable obstacles.

It should be noted that data on re-export volume have been published for the first time quite recently. Figure 2.12 shows the data from the Balance of Payment of the NBKR. In 2014, the official re-export value amounted to USD 177 million or 9.3 per cent of the total export volume. This re-export value is attributed to registered re-export determined on customs data.

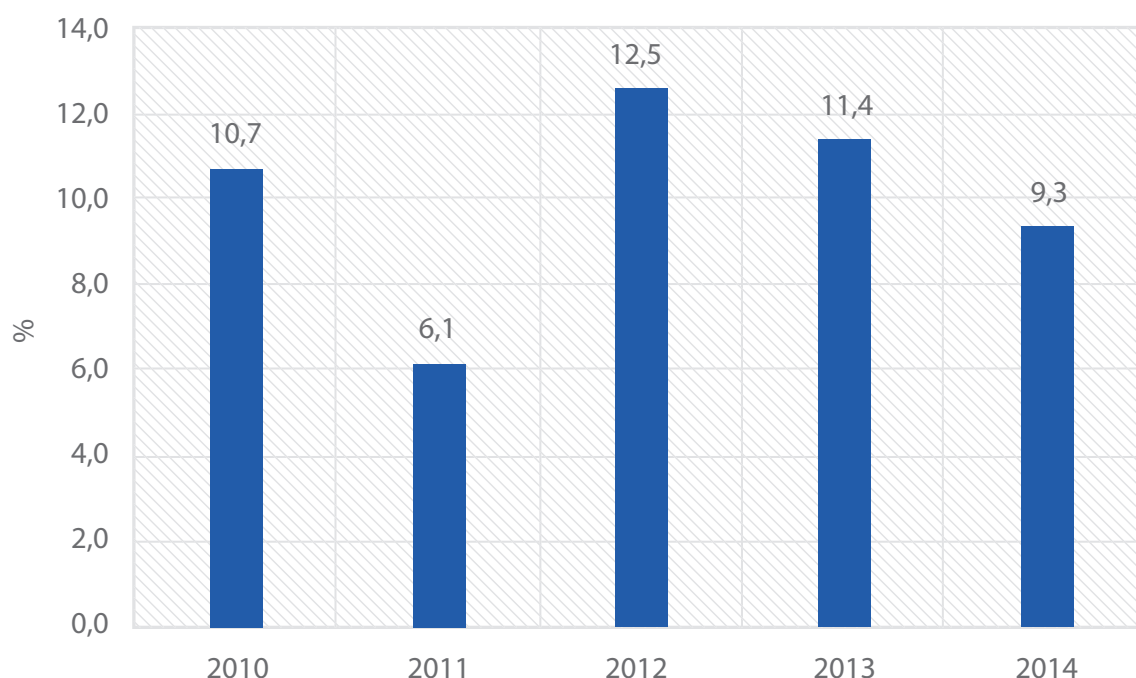


Figure 2.12. Share of Re-export in Export⁸⁸, %

Source: Balance of Payment for 2014, National Bank of the Kyrgyz Republic, Bishkek. 2015

The shrinkage of re-export in recent years is the result of barriers established by the Customs Union established in 2010, but the given values do not reflect the real export volume. Among other indicators, other non-organic substances and vehicles were leading, and the share of these goods makes two-thirds of re-export⁸⁹. This is opposite to the nature of wholesale hubs "Dordoi" and "Kara-Suu" bazaars which have been described in

⁸⁸ Later data are not available.

⁸⁹ Means of transport here include: cars, special vehicles, tractors, aircrafts and accessories to them (parts, rubber tires). The third on the size of the share, from 25 to 30%, comes the "Other goods" group which is not identified in the Balance of Payment.

the aforementioned work by Kaminski and Mitra⁹⁰. In one of their works the authors of this report carried out a calculation of re-export based on the comparison of volumes of imported and exported goods, which for 2006 reached 22 per cent from the export value⁹¹.

Therefore, it can be assumed that the real re-export value is considerably underestimated. This can be confirmed by the following. It is noted in the NBKR publication "2014 Balance of Payment" that by 2014 the balance of payments "errors and omissions" increased to 10.9 per cent of the GDP. This rise demonstrates the incomplete statistical accounting of operations related to the inflow of capital to the country or export of goods and services. Through additional studies⁹² the NBKR made amendments to export revaluation amounts. For example, taking into account values of the item "errors and omissions" based on conclusions on 2014, export volume reduced to 4.8 per cent at the expense of additional accounting of export of goods on such items as live animals, clothes and accessories, fabrics, footwear, meat, and vegetables. This survey provides an approximate re-export evaluation on clothing and accessories, fabrics and footwear in the amount of USD 190 million which is comparable to the volume of registered export.

As it has been noted before re-export is an indicator of the effectiveness of trade institutions. It is reasonable to find out here if re-export reflects internal comparative advantages inherent to Kyrgyzstan or the difference in economic policy. In many cases re-export has become possible because Bishkek and Osh cities are strategically located in places where trade routes went through mountain and steppe passes of the Tian Shan and Pamir-Alai Mountains, from the mountains to Eurasian steppe, which helped to create natural wholesale and logistic centers, because many goods had to pass through Kyrgyzstan to be delivered to Uzbekistan, Turkmenistan, the northern part of Tajikistan, and other CIS countries.

We can also note that export started to grow owing to Kyrgyzstan's more liberal trade regime which provided a simplified import tax regime and lower rates of import duties than trade neighbours offered⁹³. In connection with Kyrgyzstan's accession to the EAEU this advantage in relation to the Union partners disappeared. Moreover, Kazakhstan received even greater opportunities for development of the re-export activity.

We should state that a part of re-export could be characterized as quasi-legal; part of the products was illegal; infringing products were imported, or other issues. It should be noted that toughening legislative execution of Kyrgyzstan and its trade partners will result in reduction of this phenomenon.

The re-export activity based on comparative advantages and differences in trade policies will continue in Kyrgyzstan. The possibility of this activity's success, which was notable for the 2010s, depends on Government and business community joint activity. Business people make significant efforts to hold on to their hard-won positions. For example, today we can witness the breach of the traditional re-export scheme which involved markets. The establishment of the Customs Union made separate customs terminals and temporary storage facilities, rather than markets, work as terminal stations. In addition,

90 Kaminski B., Mitra S. *Borderless Bazaars and Regional Integration in Central Asia: Emerging Patterns of Trade and Cross-Border Cooperation*. – 2012.

91 *Tariff and Nontariff Barriers as Obstacles for Trade between China and Kyrgyzstan* // CAREC Institution, Small Research Grants Program. – Bishkek 2010.

92 This study was carried out upon the request of the NBKR "Investment Round Table" Public Organization headed by one of the authors of this report.

93 Full analysis of the regulatory and legal basis was carried out in the aforementioned work by R. Mogilevskiy.

physical contacts between sellers and buyers decreased considerably, while the online negotiations started to spread wider. The Government in its turn should make efforts to support the re-export activity because re-export is one of the areas where human development advantages are most noticeable. In contrast to a simple trade activity at least two more countries are involved into this process, that is why the standard requirements to business people double. It is necessary to know specificities of the two different markets, two different cultures, differences in languages, individual purchasing powers, standard models of purchase and sale, national traditions, religious preferences, and other issues. Besides, due to the relatively higher income from re-export and participation of women in this process, re-export trade leads to a reduction of various forms of social inequality.

– **Transport and transit corridors did not become economic.** During the analysis of foreign trade benefits an emphasis is made on export benefits. Ideas on how to increase these benefits for development goals from import have started to be suggested only recently, and these benefits are directly connected to transport corridors going through the country. Four out of six of the Central Asia Regional Economic Cooperation (CAREC) corridors go through Kyrgyzstan which connect the main economic centres of the region with each other, and they also connect the CAREC countries with no access to sea with other Eurasian and global markets. The length of railroads in the Kyrgyz Republic is 423.5 kilometres while the length of motor roads is 2,242 kilometres; and it is the motor roads which carry 95 per cent of the total volume of goods transportation. The main problems of Kyrgyzstan's physical infrastructure are the transportation of goods by rail and the surface condition motor roads and deterioration of motor roads in mountainous areas⁹⁴. There are only a few large logistic enterprises which could provide the entire set of logistic services, including warehousing, reloading, processing of goods and other services using the most innovative technologies as well as insurance and customs registration services.

The majority of companies do not have strong practice in carrying out combined transportation or logistics specialists with experience in carrying out modern types of international trade. Besides, the level of container transportation is insufficient in the majority of such companies. Significant work should be conducted to change these corridors to promote special transformations, agglomeration and large city centres which are also linked to small city centres, in addition to using connections between the city and village. The corridors should finally become economic corridors and cover the entire complex of markets connected to each other, each of these markets in their turn can be connected to other markets outside the region.

– **Export does not provide huge benefits from the point of view of employment.** This conclusion is quite obvious for common export values because gold (the production of gold is not labor-intensive) is the main component of the export structure (around 50 per cent). That is why for a more precise evaluation of this direction the evaluation of export labor-intensiveness⁹⁵ should be carried out for at least the eight most popular commodity groups after gold (Figure 2.13.).

⁹⁴ The Kyrgyz Republic: Trade Facilitation and Logistics Development Strategy Report. – ADB, 2009.

⁹⁵ Statistics does not separate the value of the workforce involved in production of export commodities, it includes the share of people employed in gross production of these commodity groups.

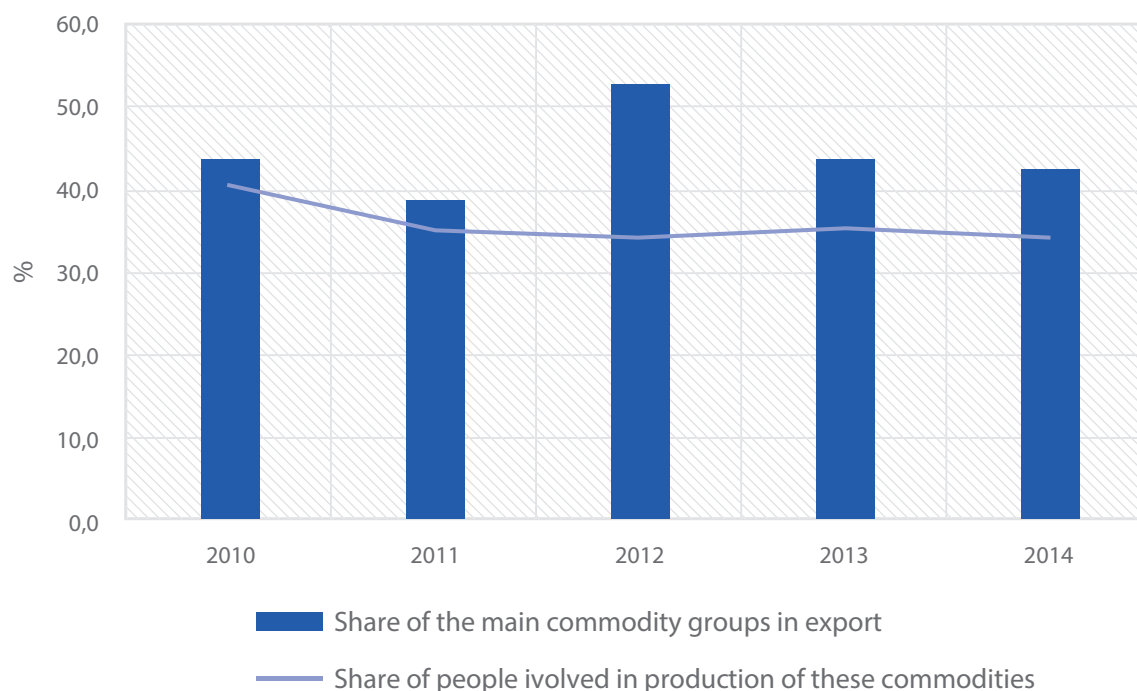


Figure 2.13. Share of Export of 7 Commodity Export Groups following Gold and Employment in their Production

Source: National Bank of the Kyrgyz Republic, calculations of the authors.

These groups practically form the remaining half of export trade. They include:

1. Live animals, animal and plant products;
2. Ready food, alcohol and soft drinks, vinegar, tobacco;
3. Mineral products;
4. Chemicals and related products;
5. Textile products;
6. Base metals and products made of base metals;
7. Machinery, equipment and mechanisms, parts for them, etc.;
8. Land, air and water transport, parts and accessories for them.

On the whole it can be emphasized that export reduction by itself worsens the economic situation as it reduces production of the gross product. However, Figure 2.13 accentuates this problem by demonstrating the reduction of the relative number of people employed in goods production while the export of these goods does not indicate this.

2.2.2. Foreign Trade Integration

Kyrgyzstan has repeatedly tried to solve economic challenges and trade balance problems by joining various economic integration associations. It was a member of the Central Asian Cooperation founded in 1994, Customs Union founded in 1996 and the Eurasian Community founded in 2000. Nevertheless, dynamic and character of economic transformations in the member countries of these unions and communities were different. Internal and foreign economic priorities were set in a different way and the role of foreign economic connections in programme implementation of the reformation of national economies was also different. All the aforementioned economic integration associations went nowhere.

During its sovereignty Kyrgyzstan has demonstrated loyalty to a liberal foreign trade regime. Considerable contradictions between the liberal foreign trade regime of Kyrgyzstan and much tougher protectionism of other members also determined insufficient effectiveness of these integration agreements.

Today Kyrgyzstan is a member of the following trade associations: World Trade Organization (WTO, since 1998), CIS Free Trade Area (since 2011), Framework Agreement on the Economic Coordination Organization Trade Cooperation. In 2015 Kyrgyzstan joined the Eurasian Economic Union and adopted its trade regime.

For a long time Kyrgyzstan was the only country in the region which was a WTO member. A lot was said about undefined benefits of this action by Kyrgyzstan. However, Kyrgyzstan's membership did not change the trade regime for the country. It simply fixed the existence of the liberal trade regime which was beneficial because Kyrgyzstan obtained much from the re-export economy.

The re-export economy can be figuratively named as trade with unilateral trade, and this is an evident feature for Kyrgyzstan. Of course, there are other vectors of trade development but Figure 2.14 counts in favor of the unilateral character of the country. It shows supplies on large commodity groups. The size of the arrows roughly corresponds to the size of supplies and these arrows show the direction of movement of goods.

There is a wide road of import supply, while export is presented in the form of separate paths. There is no movement to China which means there is no export to China, but there is a significant level of import from China which to a large extent is re-directed to the CIS countries. Export to countries further abroad⁹⁶ is compensated by gold only, the only commodity which is sold to the European markets in large amounts. There is a narrow "road" of export to the EAEU but it mainly includes re-export of oil products and textile products, and to a lesser extent export of agricultural products and clothing.

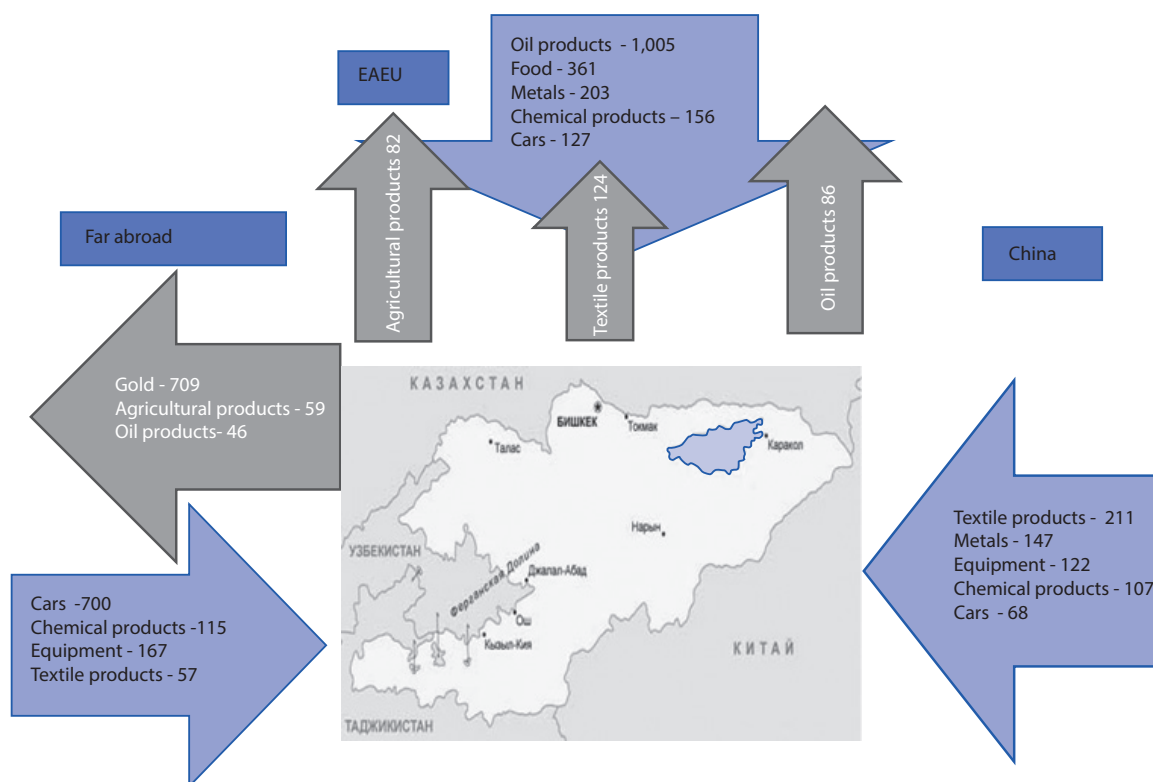


Figure 2.14. Unilateral Trade of Kyrgyzstan with Other Countries
(data for 2014, million US dollars)

Source: The chart was prepared by the authors on the basis of the data provided by the National Statistical Committee

Note: blue arrows – import, grey arrows – export

Figure 2.15. shows that Kyrgyzstan's export value has for a long time been determined by two markets: EAEU and gold market. Since 2013 the share of these two markets has comprised three-fourths of the total export volume, and Kyrgyzstan's export value to both of these markets is approximately similar. However, in previous years export to these markets varied significantly depending on a number of factors.

Export growth to EAEU member markets was mainly determined by the economic situation in Russia and especially in Kazakhstan. High economic growth during certain periods in these countries led to higher demand for products produced in Kyrgyzstan and re-exported through it. For example, in 2009 a dramatic decline in growth rates in these countries caused by the impact of the world financial crisis resulted in a decrease of the absolute value of export to the EAEU for the amount of US 170 million. This export quickly recovered in 2011 and continued increasing in 2012.

Then it decreased due to Russian economic problems and later in Kazakhstan. In many ways the dynamics of export to EAEU countries corresponded to the dynamics of world prices for oil, and although high prices for oil undermined competitiveness of the country,

which was rather low, macroeconomic effects compensated for expensive oil product imports. We should, however, mention again that Kyrgyzstan benefited from re-export of duty-free oil products.

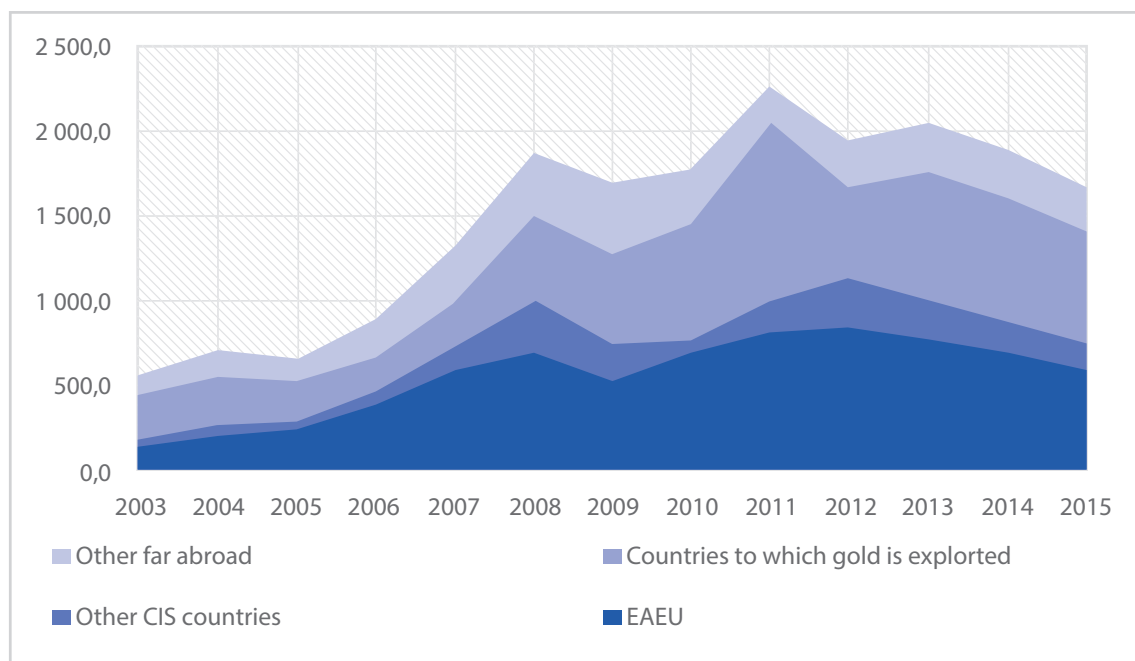


Figure 2.15. Export of Kyrgyzstan to Some Regions, millions US dollars

Source: National Bank of the Kyrgyz Republic

As for the gold market⁹⁷, its dynamics is fully determined by both world gold prices and technical production factors. The latter has been mentioned before, in Section 2.1. The price for gold reached its maximum values in 2013, then it began to decrease which led to lower export income.

Figure 2.15. provides export data to CIS markets and countries further abroad. The share of these markets is small. Annual export fluctuations to these markets during recent years had been significant and on the eve of the world financial crisis they reached maximum values. Export to these regions has been shrinking although some of these countries are the members of the CIS free trade area.

It has to be emphasized that nontariff barriers – the administration of which was increasing as formation of the Customs Union founded in 2010 progressed with joining of Belarus, Kazakhstan and Russia – did not result in a reduction of official values of export to the EAEU. However it could gradually decrease the volume of informal export⁹⁸ to these countries.

⁹⁷ Formally these are the two countries, where Kyrgyzstan exports its gold: the UAE and Switzerland.
⁹⁸ For more details on unofficial export see Section 2.2.1

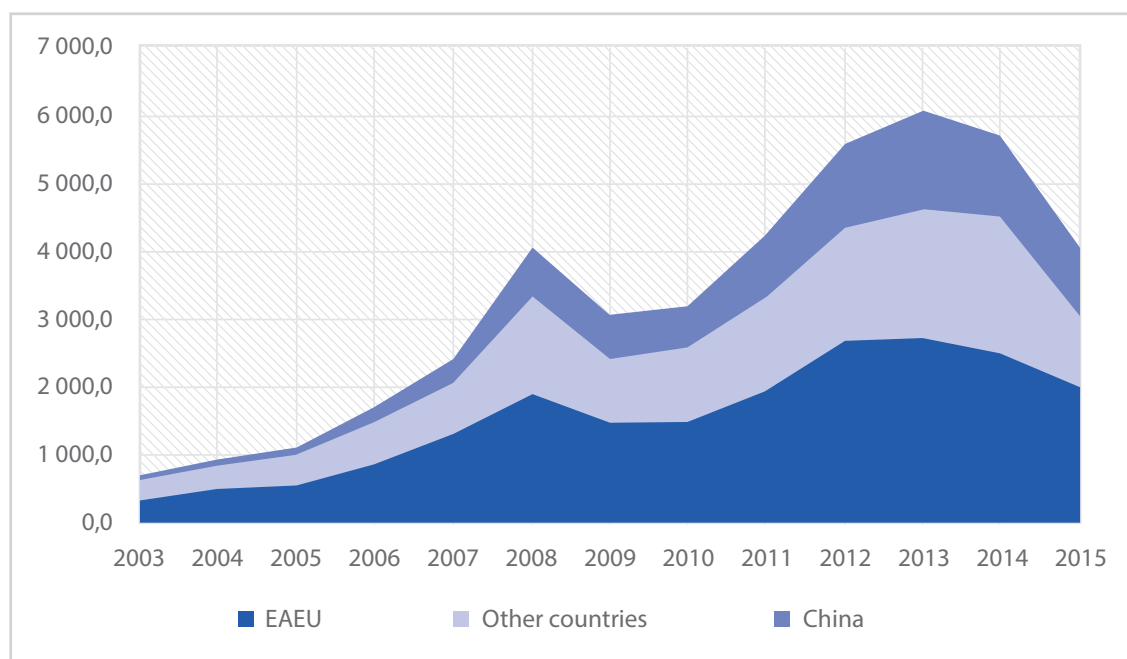


Figure 2.16. Import from Some Regions to Kyrgyzstan, millions US dollars

Source: National Bank of the Kyrgyz Republic

If we look closely at the product import dynamics we can say that Kyrgyzstan has made attempts after 2010, including by joining the EAEU, to hold its positions as a re-export hub. It is seen by the consecutive growth of the import volume from China and the share of this market in imports. However, imports grew from all regions shown on Figure 2.16. and the import dynamics were generally determined by the possibility of financing it at the expense of other sources: export, including hidden export, money transfers and revenues on the capital account. The reduction of these sources in 2014 and 2015⁹⁹, except for the growth of direct foreign investment in 2015, led to reduction of the import volume.

Recent downturns in foreign trade stimulated Kyrgyzstan to enter the EAEU in 2015. However, it should be emphasized that a number of discussions took place in the country on many issues related to this integration.

One of the studies carried out in 2014 by the National Institution for Strategic Studies, a government think-tank, made an attempt to summarize the possible benefits and negative consequences of joining a new regional association¹⁰⁰. It was expected that among the benefits Kyrgyzstan would deepen regional integration and subsequently be part of the formation of a common economic space. In the experts' opinion, the most likely benefits were related to access to broader markets, growth of direct foreign investment, use of new technologies and general improvement of competition.

It was important for Kyrgyzstan that in case the country joined the Customs Union there would be free movement of workforce to other member countries. It was also expected that as a result of pursuing an active and coordinated policy by the member states sustainable

⁹⁹ See Balance of Payment of the KR for 2015, NBKR, Bishkek, 2016.

¹⁰⁰ SWOT-Analysis of Accession/Non-Accession of Kyrgyzstan to the Customs Union: Economic, Social Measurement and Security. – Bishkek: National Institute for Strategic Studies of the Kyrgyz Republic, 2014. pp. 18, 21.

economic relations would be created in agriculture, energy, industry and transport sectors which would lead to a deepening and expansion of production cooperation and then to the creation of joint transnational corporations as part of the EAEU.

It was supposed that Kyrgyzstan would endure some negative consequences from joining the Customs Union, including a possible rise in inflation due to the establishment of a unified customs tariff and removal of cheaper goods caused by opening of markets of the member countries; reduced economic growth rates, lower employment levels, and smaller state budget; and less competition for a number of sectors with a high share of imported materials in their general expenditures¹⁰¹.

Box 2.4. Effects of Creation and Deviation in Trade when a Country Accedes Regional Trade and Economic Unions

A country's effective participation in regional trade agreements is evaluated first of all from the point of view of effects of creation and deviation in trade which show if the country's welfare increases or decreases as a result of its participation in the agreement¹⁰².

The effect of creation takes place in those cases when partner country imports replaces less effective internal suppliers (those who have larger expenditures) which results a trade benefit by the country.

The reverse effect – effect of deviation – occurs when imported goods with less expenditures due to limitations of the regional agreement (free trade area) are put out by products of a partner country due to distorting influence of tariffs. As a result of exceeding the effect of deviation over the effect of creation national welfare usually recedes.

The main reasons for the occurrence of deviations in trade are:

- 1. increase of the import tariff for a certain commodity group after the country joins the regional agreement;*
- 2. decision by internal producers to purchase less effective but cheaper goods from EAEU suppliers;*
- 3. reduction of revenues to the state budget from collection of customs fees due to re-export to the country of goods which have passed customs clearance in the territory of other member states are inevitable in case a united customs tariff is established;*
- 4. compensation to WTO trade partners (which are not members of the agreement) in case of worsening the foreign trade regime.*

101 SWOT-Analysis of Accession/Non-Accession of Kyrgyzstan to the Customs Union: Economic, Social Measurement and Security. – Bishkek: National Institute for Strategic Studies of the Kyrgyz Republic, 2014. p. 20.

102 Tochitskaya I., Mogilevskii R. Foreign Trade of the Kyrgyz Republic: Condition and Prospects. – Warsaw. Center for Economic and Social Studies, 2001

Regarding Kyrgyzstan's participation in regional agreements it should be highlighted that the real benefit for all member states is fully realized only when differences existing between the members are eliminated as part of regional integration, and the so-called "four liberties of movement", including movement of goods, services, capital and workforce are formed¹⁰³.

If, however, within the frame work of regional cooperation there is no real alignment of the conditions of activity does not take place or such alignment leads to worsening pre-existing conditions, then the real benefits of such regional agreement is possible only with considerable reservations.

Box 2.4. provides some theoretical principal points related to the effects of creation and deviation in trade when a country joins regional trade and economic unions.

However, in practice these effects can have serious consequences. It is also important that regional agreements that create favourable conditions for member countries do not simultaneously create barriers with other countries.

Taking into account foreign trade dynamics we can assume that some negative aspects of accession have not been fully evaluated and some expected consequences have not occurred¹⁰⁴. Positive changes in export to Customs Union countries were observed immediately after 2010 and have since declined.

The change in the trade dynamics for the first six months of 2016 compared to the similar period of 2015 shows noticeable shift towards non-EAEU member countries (see Table 2.6.).

As Kyrgyzstan has not been a member of the EAEU for long, it is difficult to evaluate the quantitative degree of the negative impact the effects of deviation has had on trade effectiveness.

For example, the potential complication of access to new technologies, parts and equipment necessary for renovation and production of competitive products in the republic can have a potentially negative impact on the functional import structure which is discussed in Chapter 2.

Table 2.6. Share of Foreign Trade with Various Regions

	Export		Import	
	6 months of 2015	6 months of 2016	6 months of 2015	6 months of 2016
EAEU	65,0	52,7	51,5	40,3
CIS	77,0	68,1	56,5	43,5
China	3,1	4,6	20,1	35,2
Countries further abroad (without gold)	19,9	27,3	43,5	56,5

Source: National Bank of the Kyrgyz Republic.

103 Tochitskaya I., Mogilevskii R. Foreign Trade of the Kyrgyz Republic: Condition and Prospects. – Warsaw. Center for Economic and Social Studies, 2001.

104 For example, inflation has not increased.

However, there are facts confirming external shocks to Kyrgyzstan's economy in late 2015 and early 2016 after joining the EAEU. These shocks included a drop in world oil prices which affected both Russia and Kazakhstan, and sanctions against Russia. However, as time shows these changes were continuing trends that had started before joining the Union. Kyrgyzstan's economy reacted to a greater extent to the economic problems inside the EAEU rather than a change in trade conditions.

Moreover, export value decreases were caused by one country only – Kazakhstan, which is the largest EAEU partner for Kyrgyzstan's exports, while export to Russia continued to grow. The next graph shows that one of the main reasons for a reduction of exports to Kazakhstan was the appreciation of the real exchange rate of the Kyrgyz som against the Kazakh tenge when Kyrgyzstan joined the EAEU, which has continued. In other words, products from Kyrgyzstan priced in tenge became less competitive in the market in Kazakhstan due to cheapening of the tenge against the som.

As for Russia, when Kyrgyzstan joined the EAEU such trend was not observed. The real exchange rate of the som against the Russian ruble fluctuated insignificantly. However, in the end of 2014 and during the first six months of 2015 the exchange rate of these currencies became more stable. At the same time a drop in the real exchange rate of the som against the US dollar served to increase trade with countries further abroad due to lowering the cost of Kyrgyzstan's goods priced in US dollars

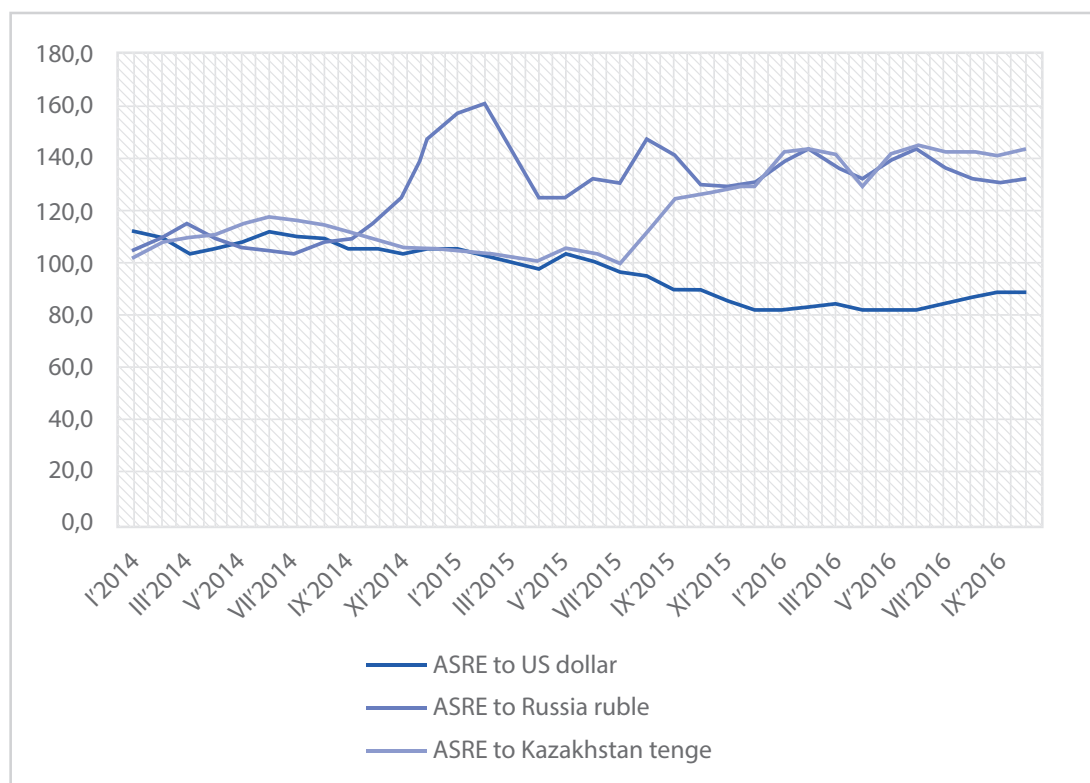


Figure 2.17. Real Bilateral Exchange Rate of the Som against Other Currencies
(base year – 2010)

Source: National Bank of the Kyrgyz Republic

At the same time Kyrgyzstan is now a member of the EAEU; therefore, all future problems and challenges faced by separate members will be projected onto Kyrgyzstan, and Kyrgyzstan's problems should worry other members. It is necessary to note that the EAEU made an important decision to conduct activities to reveal and eliminate barriers, withdrawals and limitations for the provision of free movement of goods, services, capital and human resources as part of the Eurasian Economic Union¹⁰⁵.

Moreover, in November 2016 at the session of the Board of the Eurasian Economic Commission (EEC), a Decision on the Establishment of an Advisory Committee on the Functioning of Internal Markets was made. Today this Committee is one of the most extensive EEC advisory committees. It comprises representatives of the executive authorities of the member states and participants of the business community of EAEU member states.

The Register of Obstacles now includes 279 obstacles, of these there are 49 barriers, 142 withdrawals and 88 limitations. Of these 109 obstacles have been eliminated. Table 2.7. shows the number of obstacles created by the EAEU countries. The same obstacles can be simultaneously applicable to several countries:¹⁰⁶

Table 2.7. Number of Obstacles Created by the EAEU Member States

Member state	Barrier	Withdrawal	Limitation	Total
Armenia	3	70	48	121
Belarus	7	72	56	135
Kazakhstan	12	115	53	180
Kyrgyzstan	8	69	48	125
Russia	14	93	58	165

According to the Table, new EAEU members use fewer obstacles compared to the founding Customs Union countries. The most significant non-tariff obstacles are notable in Kazakhstan – the main trade partner of the Kyrgyz Republic – which intensifies the negative effect of the macroeconomic imbalance mentioned earlier. In this connection, the effectiveness of the Advisory Committee on the Functioning of Internal Markets is important as it targets the elimination of obstacles, and Kyrgyzstan should actively promote the ideas of liberalization of trade relations which have formed the basis of its trade policy and serve as the basis of trade relations inside the EAEU.

As Kyrgyzstan participates in several regional agreements, this results in both benefits and certain challenges related mainly legal contradictions. Such contradictions – with the WTO rules – occurred in 2015 after Kyrgyzstan joined the EAEU and transitioned to a unified customs tariff and increased the so-called protection rates. The Government admits that there is a contradiction between the new customs regime and the one agreed to with the

105 Work on Revelation and Elimination of Obstacles. Materials of the Eurasian Economic Commission. –http://www.eurasiancommission.org/ru/act/dmi/internal_market/work/Pages/default.aspx.

106 See <http://www.tazabek.kg/news:1346783>.

WTO. Apparently Kyrgyzstan should provide compensations to WTO members who find the republic's actions as worsening market access conditions.

For example, third countries can request compensation in the form of reduced duties for other commodities. However, in the opinion of the Government, as the country increases tariffs as part of the EAEU this compensation will be provided at the expense of all member countries. Thus, Kyrgyzstan will not bear losses on compensation obligations¹⁰⁷.

Another contradiction occurs due to the fact Kazakhstan, Kyrgyzstan's closest neighbour and its main trade partner with prospects of transit of goods through its territory to other EAEU countries, obtained the so-called grace period when it joined the WTO.

Kazakhstan applies waivers on 1,347 commodity items (for example, meat and by-products, tyres, paper, clothes, footwear, pipes, industrial equipment, vehicles, electronic devices, and other items) which means on 1,347 commodity items Kazakhstan's import customs duty rates will be lower than the EAEU unified customs tariffs, but they will only be used for the domestic market of Kazakhstan.

The list of waivers will come into legal force on 1 January 2016. As part of the protocol Kazakhstan assumes responsibility to trace goods from the list, to create an accounting system of such goods and no export of these goods at reduced rates to other EAEU countries¹⁰⁸.

It is difficult to evaluate how effective this mechanism is. Some time ago when Kyrgyzstan offered to adopt its own list of waivers the suggestion was rejected due to ineffectiveness monitoring measure. In any case Kyrgyzstan has a chance to return to a more liberal regime by equalizing its obligations with Kazakhstan and reducing the risks of an ineffective customs regime. This opportunity should be considered at the state level¹⁰⁹.

Therefore, we can agree with the opinion of ADB experts that "regional trade integration can supplement membership in the WTO and the rules of multilateral trade. Regional preferential trade agreements (including the Customs Union of Belarus, Kazakhstan and the Russian Federation) can promote economic diversification of Central Asia. However, they should be used carefully.

Their usefulness correlates positively with the degree they promote development of trade between participants and opening of the Russian market for Central Asian producers, and correlates negatively with the degree of deviation they cause. Future development and net economic benefits from membership in the Customs Union are still not clear and require further research.

For the countries which are not oil exporters, such as the Kyrgyz Republic and Tajikistan which consider the possibility of joining this union it is important to include into their plans related to accession the issues of labor migration and invest in development of their potential in part of discussion and pursuing trade policy.

The prospect of expansion of the Customs Union assumes that its current members, its potential members and those countries which are not planning to enter it should carry out

107 O. Pankratov. Kyrgyzstan will Pay Compensations to the WTO as part of the EAEC, not Individually. – <http://knews.kg/133515/oleg-pankratov-kompensatsii-vto-kyrgyzstan-budet-vyiplachivat-ne-samostoyatelno-a-v-ramkah-eaes/>.

108 Citation according to <http://zanoza.kg/330603>.

109 R.I. Mogilevskii University of Central Asia. Almaty. April 6, 2016. Participation of Kyrgyzstan in Global and Regional Trade Agreements: Things are Getting Even more Complicated. <https://www.conftool.net/silkroad2016/>.

further analysis of issues of trade creation and deviation, influence of the Customs Union on the export and import structures, on factors of production and employment.”¹¹⁰

2.3. Trade Development Problems

2.3.1. Tariff and Non-Tariff Barriers

The long-term decline in exports indicates the existence of significant economic structural problems as was mentioned earlier in this chapter.

Kyrgyzstan's membership to the EAEU has not given any grounds yet to decide on judgments about trade reorientation changes. At the same time, some data given above and evidence of business people has not still allowed us to make any conclusions to confirm the expected tangible benefits to Kyrgyzstan from joining the EAEU.

Both domestic and foreign trade faces objective tariff and non-tariff problems¹¹¹ including the country's remoteness from international maritime routes, mountainous terrain that imposes using more expensive road transport, hazard of natural disasters, and recurring border tensions leading to delays in the delivery of goods. All these problems make it difficult to increase the trade sector contribution in the growth of the country's income.

Nevertheless, we cannot say that there is nothing to improve. For example, improved transport corridors give a certain effect as stated above. This generally means that in order to maintain the competitiveness of goods from Kyrgyzstan, it is necessary to reduce transport costs, and, consequently, reduce tariff and non-tariff barriers faced by trade.

Box 2.5

Mirlan, an entrepreneur from Chaldovar (border crossing village)

«We were positive for joining the EAEU. We, in the countryside, thought that we would enter – and all the doors would open. We thought that would trade not through smugglers, who buy everything cheap from farmers, but directly. But while we do not see any difference: customs stops as before. We hope that with the accession to the EAEU we can directly sell our products without intermediaries. And for this we are ready to work on quality, to receive certificates, to do vaccination - everything to ensure that our product meets the standards.»

¹¹⁰ Connection of Central Asia with Global Economic Centers. – ADB Institution: 2015.

¹¹¹ This chapter uses the existing extensive literature on barriers in trade with the focus on recently published documents, among them: the report of UNECE Regulatory and Procedural Barriers to Trade in Kyrgyzstan, in which preparation one of the authors of this report took part.

Tariff Barriers

Import customs tariffs in Kyrgyzstan have never been taken as significant barriers during the process of foreign trade liberalization. Even when joining the WTO, the actual tariff was lower than the agreed one. Membership in the EAEU inevitably led to an increase in import tariffs. According to the evaluation of the Ministry of Economy, Kyrgyzstan's average rate increased from 7.4 per cent to 9.4 per cent¹¹².

This is a fairly moderate increase, which should not have been a serious impact on the growth of business costs in Kyrgyzstan. Before joining the EAEU, the evaluations were made, which showed that such an increase may not strongly affect the entrepreneurs' costs.

For example, in the garment industry, one of the studies¹¹³ suggests that "joining the Customs Union will lead to an increase in import tariffs and greater formalization at the border"; both of these factors were expected to increase the textile costs and, consequently, reduce the competitiveness of the industry, since the production costs could increase by 3.6 and 7.7 per cent.

This would put additional pressure on the sector. However, the same report says that "Kyrgyz companies are noticeably smaller than those in the reference countries. This suggests that Kyrgyz companies could take advantage of the economies of scale by means of expansion".¹¹⁴ In fact, sewing companies refused exemptions from the Common Customs tariff suggesting that they would compensate for rising costs by increasing the share of the CU market.

However, several changes occurred concurrently that caused a deterioration of goods from Kyrgyzstan, in particular: 1) the quantity of goods that were subject to simplified customs clearance when imported was reduced; and 2) economic sanctions taken against Russia and sharp fall in prices of oil products caused devaluation of Kazakh tenge primarily. In fact, the devaluation of this currency in relation to the Kyrgyz som influenced the growth of import tariffs.

It should be emphasized that in the study of devaluation issues a view was expressed that the effects of currency devaluation was something beyond the influence of the Government of Kyrgyzstan.

However, according to Box 2.6., the problem was also that Kyrgyzstan had more liberal laws applied to small businesses allowing them to increase imports quickly to Kyrgyzstan as a result of relative price changes.

Most likely, the countries will move to a new equilibrium, but it does not guarantee that there will be no new external shocks, which will have a much greater impact due to the weaknesses of the economy and the financial system.

112 Materials of the official website of the Ministry of Economy of the Kyrgyz Republic. – www.mineconom.kg

113 Kyrgyz Republic. Apparel Industry: Effect of Joining the Customs Union and Options to Improve Competitiveness. - Bishkek: 2014. p.7.

114 Ibid. p. 29.

How real is export diversification?

One of the signs of the improving of economic affairs is diversification, which is most efficiently described by the diversification of export goods. Global practice has various indices of export concentration, and the simplest and clearest of them involve the calculation of the specific weight of the main export goods, where an increase in export diversification leads to a decrease in the share of these goods. Typically, three or five types of goods are used, but including more, for example, up to seven, may give a more open-ended picture.

The Regional Report for Trade and Human Development emphasized the problems of export concentration in Central Asia pointing out that the export structure in Kyrgyzstan is more differentiated. However, according to the below Figure 2.18., Kyrgyzstan has begun to experience problems in this regard.

Box 2.6. Business Evidences about the Problems appeared after Joining the Customs Union

According to Gulnara Uskenbaeva, the Chairperson of the Association of Suppliers (Manufacturers and Distributors), "the main problem of Kyrgyzstan manufacturers is smuggling. All kinds of goods may be smuggled: confectionery, food, etc. Previously, we estimated the smuggling as 2-3% of the imported goods. Now, according to pessimistic estimates, it makes 15%, i.e. 5-6 times more". She also reported that there was the 6-8% increase in prices for freight services.

According to her, the removal of customs borders with Kazakhstan has advantages but great disadvantages as well. The main problem is a huge flow of smuggled goods without any documents and payment of relevant duties and taxes. This is evidenced by the flow of smuggled flour and fuel – the volume of the latter reaches tens of millions dollars. However, this list is not exhaustive. As a consequence, the Government has introduced new requirements for the import from the EAEU.

High import duties and change in tax principles have led to an increase in customs duties. According to the Head of the Dordoi Market Trade Union, Damira Dootalieva, the cost of customs clearance per kilogramme of goods imported from China increased from USD 0.7 to USD 2.4. There are some other obstacles to the import from China as well.

Source: <http://knews.kg/2015/11/03/v-5-6-raz-vozros-uroven-kontrabandyi-tovarov-v-kyrgyzstan--gulnara-uskenbaeva/>, Authors' interview with G. Uskenbaeva;

http://www.nlkg.ru/economy/eaes-%E2%80%93-sem-bed_-odin-otvet



Figure 2.18. Specific Weight of Major Product Groups in the Kyrgyz Republic Export, %

Source: National Statistical Committee

In recent years there has been a noticeable increase in the share of major product groups. On the one hand, this suggests a potential specialization of the country in the production of certain goods, which at the micro-level allows for economies of scale. On the other hand, there is a concentration of exports, which is accompanied by a dependence on an unfavorable environment in foreign markets.

Table 2.8. shows the seven main product groups. As the table shows, the main export product group is the "Precious Metals, Pearls, and Precious Stones" product group. In other words, it is gold exports. In this regards, it should be noted that in 2015 the share of this group was the highest since 2003. The following product group is the "Surface, Air and Water Transport Facilities, and their Parts". It should be emphasized that this group is mainly the re-exports, since they are mostly not produced in Kyrgyzstan. The third group by specific weight is the "Mineral Products" group; although, it is basically re-exports as well, despite these are the oil products, it may be said that exports to a small extent reflects the potential of the country's economy.



Beekeeper of Atbashi district, Naryn Oblast, photo by Mirlan Dyikanbaev



Beekeepers of Karakulja district, Osh Oblast, photo of Public Union "Agrolead"



Harvesting season, Osh Oblast, photo by Azamat Kasymov



Participation in the International Exhibition Asian Food Show, Osaka (Japan), photo by Asel Ibraimova

Table 2.8. Specific Weight of Major Product Groups in Exports 2015

Description of Product Groups	Specific Weight, %
Precious metals, pearls, and precious stones	50,8
Surface, air and water transport facilities, and their parts	8,5
Mineral products	8,0
Machinery, equipment and mechanisms	5,7
Plant products	5,6
Textile products	5,2
Food, alcoholic and non-alcoholic beverages and vinegar, and tobacco	3,4

Source: National Statistical Committee

Note: the composition of these seven product groups virtually has remained unchanged for a long period, with the exception of a two-year period of the end of the 2000s, when the seven included the “Products of Chemical and Related Industries” group.

Positively, it can be noted that the seven product groups reflect the specialization of the economy. Such product groups include groups related to mechanical engineering (fourth group by specific weight) as well as the product groups, which indicate the agricultural nature of the economy.

However, given that the share of the first three groups was 67.3 per cent and the share of the last four was 19.9 per cent, one can emphasize that the nature of the country’s exports continues to be for re-export and raw materials.

The situation thus continues to be overburdened by the fact that the share of the last four groups has continued to be in decline for the past four years.

Against the declining growth rates and increasing export concentration, a question arises: Is there any potential for its growth? This evaluation usually takes place through defining comparative advantages gained by the country for individual goods (see. Box 2.5.).

Box 2.7. Calculation of the Revealed Comparative Advantage Index

To determine the goods with a revealed comparative advantages, the Balassa index should be applied:

$$RCA_{ict} = \frac{xval_{ict} / \sum_i xval_{ict}}{\sum_c xval_{ict} / \sum_i \sum_c xval_{ict}}$$

Thus, the index shows the ratio of a share of certain product exports in the total exports of a particular country to the share of world exports of the same product in the overall world exports. It is considered that the country has a revealed comparative advantage in the product export, if the Balassa index for it is **greater than 1**. In other words, the country has a revealed comparative advantage in the export of a product, where the country's share in the global market of this product is higher than the share of the country's total exports in the overall world exports.

A surprising fact is that, despite all the export problems and that the seven product groups comprise 87 per cent of exports from Kyrgyzstan, there are many more products with a revealed comparative advantage. Table 2.9. shows the quantity of such products.

Table 2.9. Potential for Export Diversification

	2005	2007	2009	2011	2013	2015
The number of product descriptions with value of the comparative advantage index, $RCA > 1$	16	25	14	11	21	24

Note: the calculations were made using the FEACN two-digit classification.

Source: Comtrade database.

Table 2.9. shows that in 2015, according to calculations based on the Comtrade database, there were 24 groups of products with high level of revealed comparative advantage out of 88 product groups exported by Kyrgyzstan.

The specific weight of these groups is small, but such products do exist, and compared to 2011 the number of such product groups has increased. The products that have potential advantages should also be emphasized; the authors include into this groups the products that have RCA greater than 0.8, that is, with some effort, the export of such goods may reach the group with actual advantages. It should also be highlighted once again that a large number of such groups due to lower exports indicates the structural problems existing in the economy referred to earlier.

Table 2.10. Number of Product Groups with Different Comparative Advantages in 2015

Index value	Number of Product Groups
$RCA > 1,4$	17
$1 < RCA < 1,4$	4
$0,8 < RCA < 1$	3

Source: authors' calculations

According to Table 2.10., there are 17 product groups in Kyrgyzstan that have strong revealed comparative advantages and seven groups that can be considered as the groups with unsustainable revealed comparative advantages. However, it is obvious that the number of product groups with revealed comparative advantages is much more than the number of products that cover a major share of exports.

Trading Focus of Product Groups with Comparative Advantages

As part of the analysis of tariff change impacts, the issue of trading focus of the product groups with comparative advantages is very important. The table below (see Table 2.11.) shows that Kyrgyzstan has a fairly clear specialization in trade with different regions. The most product groups with comparative advantages have one-sided focus,¹¹⁵ that is, they are mainly exported either to EAEU countries or to the non-EAEU countries.

115 A region share of 75 per cent was selected as the criterion of the one-sided focus of trade

Table 2.11. Directions of Trading Focuses

Focus	Number of product groups in 2013	Number of product groups in 2015
To EAEU countries	10	10
To non-EAEU countries	10	12
In both regions	1	2

Note: * in brackets – without gold exports

Calculations show that 10 product groups are focused on the EAEU, 12 – on the countries outside the Customs Union, and only two groups are exported, on more or less equal basis, to both regions.

As shown in Table 2.12., the group of goods with revealed comparative advantages considerably predominates in exports (to both regions) and, in general, the share of all products with advantages exceeds 58 per cent. It should be noted that the main product that determines this share is gold from Kumtor. Nevertheless, without gold from Kumtor, such a tendency when products with distinct advantages make up the bulk of exports remains.

Table 2.12. Share of Products falling under Different Categories of Comparative Advantages in the Country's Exports in 2015, %

Products	To EAEU countries	To Non-EAEU countries
With distinct comparative advantages	18,9	54,7* (8,3)
With minor comparative advantages	0,7	3,1
With potential comparative advantages	0,5	0,6
Total	20,1	58,3* (11,9)

Note: * in brackets – without gold exports

The Table's data indicate the potential sources of growth that include products with both distinct and other categories of advantages. However, all of these groups, and even those

with distinct comparative advantages, may lose their advantages in the event of abrupt changes in trading conditions, introduction of non-tariff barriers and the absence of government policies aimed at increasing their export potential.

The above analysis suggests that Kyrgyzstan has formed an export base that focuses on the EAEU. Primarily, such an argument lies in a larger number of products with comparative advantages exported to the EAEU. At the same time, one should realize that implementation of these advantages is possible in the following cases:

- 1) Actual improvement of trade in the EAEU, which involves the removal of not only the tariff but the non-tariff barriers as well;
- 2) Plateauing or even lowering of non-tariff barriers in relation to imports from third countries;
- 3) Improvement of the domestic institutions that will promote exports to other countries;
- 4) Absence of discriminatory responses from third non-EUEU countries as a result of changes in the trade conditions with them upon Kyrgyzstan joining the EAEU.

At the same time, it's noteworthy that the sustainable trade openness will contribute to the gradual development of comparative advantages and market diversification. The reduction of tariff and non-tariff barriers will help countries to integrate into the world trading system which is necessary for countries aspiring to become producers and exporters of more diversified products. WTO membership supports openness at the national level based on the clear rule-based multilateral trading system that provides the same regulation for both large and small countries¹¹⁶.

Non-Tariff Barriers and Institutional Gaps

Kyrgyzstan has simplified and streamlined the import and export procedures, and documentary requirements. But so far, progress has been moderate. Kyrgyzstan is ranked 79 out of 190 in the World Bank's "Doing Business 2017" ranking by the "Trading across borders" indicator¹¹⁷.

Despite in comparison with previous ranking the country increased two positions in the ranking through a decrease in time and cost required for exporting by becoming an EAEU member. Nevertheless there is a list of indicators where Kyrgyzstan seriously lags behind the averages from Europe and Central Asia.

All import indicators, for both time and cost, are worse than the average regional values. For export, however, Kyrgyzstan has a little better performance than average in these regions for the index of "time expended for export: border and customs control (hours) and documentation (hours)", but it seriously lags behind other countries in the region by the USD cost of registering export supplies at the border and customs compliance.

116 Central Asian Relationships with the Global Economical Centers. ADB Institute, 2015.

117 World Bank. 2017. Doing Business 2017: Equal Opportunity for All. Washington, DC: World Bank.

A number of studies¹¹⁸ show that there are the following challenges for goods crossing the borders. Among them:

- **Shortcomings of customs clearance.** According to these studies, about 60 per cent of respondents said that their cargoes (100 per cent) are physically inspected by customs and other border control agencies for both importing and exporting across Kyrgyzstan's borders.

At the same time, business people from Kyrgyzstan have problems with crossing the borders of other countries. The corridor performance measurement and monitoring (CPMM) tool introduced within ADB's Central Asian Regional Economic Cooperation (CAREC) programme showed different improvement dynamics for the movement of goods along the CAREC corridors passing through the territory of Kyrgyzstan. For instance, in 2015, the time required for border crossing along the corridors 1 and 5 decreased significantly, while for the corridors 2 and 3 did not¹¹⁹.

Although these estimates relate to the passage of products across the whole length of the corridor, they nevertheless give a rough estimate of the difficulties of imported and exported goods from Kyrgyzstan passing several corridor intervals. A more specific example is the passage of goods from Kyrgyzstan through the 3b Corridor – the so-called agricultural corridor, which connects Russia with the Middle East and South Asia and is one of the main routes for Kyrgyzstan's suppliers.

The required border crossing time on this corridor has increased by 14.3 per cent, as stated in the report, due to increasing expectations by Kyrgyzstani operators in the Veseloyarsk area. It should also be pointed out that the shipment costs of 20 tonnes of cargo over a distance of 500 kilometres along this section of the corridor are among the highest. In 2015, they amounted to USD 1,743, which is more than three times higher than the cost for the parallel Corridor 3a.

At the same time, it should be emphasized that these are the average data for 2015, after Kyrgyzstan joined the EAEU, thus, these figures are likely to have decreased. After establishment of the Customs Union, trucks passing from Kazakhstan to Russia have required significantly less time to cross the border (an average from seven to two hours). However, with regard to border crossing to Kazakhstan, for operators of the non-CU countries the time required increased from 8 to 21 hours, that is 2.6 times higher¹²⁰. It can be assumed that since Kyrgyzstan has introduced the EAEU customs procedures, the time for passage of goods from non-EAEU countries has also likely increased.

Kyrgyzstan, due to decreasing budget payments, introduced additional requirements for the passage of goods across the state border in the form of the so-called border crossing coupon. However, the board of the EEC recognized that the coupon, which should be filled in by entrepreneurs when crossing the Kyrgyzstan-Kazakhstan border duplicates the customs control. Currently, the Government has abolished this requirement but has

118 The majority of these studies had been carried out before Kyrgyzstan entered the Customs Unions. The study carried out by the ADB Institute "Central Asian Connections to Global Economic Centers" published in 2015 showed that after establishment of the Customs Union non-tariff barriers in trade between Kazakhstan and Russia reduced considerably. However, at the same time such barriers substantially increased between Kazakhstan and other Central Asian countries. Taking into account dependence of Kyrgyzstan on import of products from many countries it is unlikely that nontariff barriers will be significantly decreased as a consequence of Kyrgyzstan's accession to the EAEU.

119 Corridor Performance Measurement and Monitoring (CPMM). Annual report. 2015.

120 See materials of the Workshop on Corridor Performance Measurement and Monitoring: CAREC Experience and Future Prospects, <http://www.carecprogram.org/index.php?page=cpm-international-workshop-carec-experience>.

adopted a new Regulation for “Measures to ensure the Stock Accounting transported across the Border within the Trade with the EAEU Member-States” (26 October 2016), which requires submitting a dispatch note instead of the state border crossing coupons. It is difficult to judge whether it will cause another backlash by the supranational body, but the introduction of new requirements increases the burden on businesses and casts doubt on the effectiveness of the EAEU operation.

Box 2.8. Discussing the Problems of Customs Administration at the Meeting of the Business Development and Investment Council (11 October 2016).

For the past year, companies engaged in foreign economic activity as well as freight and cargo transportation have faced a considerable increase of customs clearance violations of transported goods by State Customs Service employees. Marat Sharshkeev, the President of the Chamber of Commerce, reported this at the meeting on 11 October.

According to him, to eliminate such problems, the business association proposes to amend the procedure for determining the value of goods at customs clearance which excludes the subjective application of different rates to FEA participants of the and to prohibit the State Customs Service to direct FEA participants to specific customs clearance places and temporary storage warehouses belonging to private individuals.

According to the Sharshkeev, customs authorities apply unreasonable methods to determine the value of goods as well as apply the alternative approach, which affects the cost of goods and imposes a burden on the end user.

Following the discussion, the Ministry of Economy commissioned the establishment of a working group, and within a month to make proposals for determining the value of goods, whereas the State Customs Service shall within two months address the issues of temporary storage places.

- **Shortcomings of customs clearance process.** Customs clearance is complicated by the lack of clarity with the definition of customs value of goods imported into Kyrgyzstan. Foreign economic activity (FEA) participants also reported delays in making payments at border crossing points.

Recently, this problem seems to be exacerbated by problems arising from customs duties in the state budget. This problem was particularly emphasized at the meeting of the Business Development and Investments Council under the Government (see Box 2.8).

- **High level of corruption.** The majority of respondents (including FEA participants, officials and representatives of business associations) reported abuse of power by officials both in Kyrgyzstan and in other countries, and the prevalence of informal payments.

As CPMM estimated, on average for all the corridors, a transport operator faces informal payments once out of every three cases in obtaining a visa, migration registration and vehicle registration. The probability of paying informal fees is 26 per cent in the case of weight control, standard inspection and customs clearance. With regard to border control there is a 20 percent probability of having to make an informal payment. The report gives different assessments of informal payments – from USD 20 to USD 50 for a variety of procedures related to the transport of goods, which significantly increases the total cost of carriage. At the same time, it should be emphasized that the report authors suggest that these payments may be higher due to the fact that the survey was conducted only among drivers, that is, the owners of the goods were not polled. An important conclusion of the report is that the informal payments are on average higher for perishable goods and for goods transported by road. Such transits of goods are key issues for Kyrgyzstani operators indicating a higher corruption burden for foreign trade.

- **Lack of quality in logistic services.** Kyrgyzstan logistics sector comprises a number of freight forwarders, which are the part of the Association of Freight Forwarders of the Kyrgyz Republic. The forwarding and transportation companies are presented by small carriers who are inclined to use outdated cargo fleet. Therefore, transportation equipment is often out of order and is problematic in terms of safety and environmental impact. The evaluation also showed that the goods unloaded by hand are damaged as a result. There is no equipment for non-intrusive monitoring at the border crossing points.
- **Problems in the sphere of technical regulation.** Despite significant progress made in the institutionalization of the standardization of market principles, as well as in modernization of the quality and metrology systems, the development level is still not sufficient to promote exports.

It has become especially noticeable in relation to veterinary control – the unresolved problems in Kyrgyzstan actually stopped the export of animal products to EAEU countries. In this respect, the feedback of Kyrgyzstan business people to existing export restrictions is very interesting (see Box 2.9).

Box 2.9. Sergey Ponomarev, the President of the Markets Association of Kyrgyzstan, believes that ...

“Obstacles raised by Kazakhstan are connected with lobbying its own interests. For example, despite the EEC decision, the phyto-sanitary control has still been valid on the Kyrgyz-Kazakh border, which sends cargoes back. Or remember the situation with potatoes: the neighbour lifted the ban on its import only when it sold its own potatoes ... It is necessary to take it philosophically as this lobby will be repeated”, Ponomarev said. Passed or Failed? Sergey Ponomarev considers that for the one-year period of being a part of the EAEU, a number of Kyrgyzstan industries may be given “two” or “three” mark. “As to the laboratories, the Government behaved like a dog in the manger refusing to build them in the framework of public-private partnership. Unfortunately, we have developed a small-scale production within our agriculture. We cannot provide the required export volumes as it is necessary to work on logistics as well. The EAEU gives opportunities; and our officials are beginning to realize that a number of opportunities have been already missed”, said the expert.

Source: <http://ru.sputnik.kg/analytics/20160812/1028527648.html>

In any case, the existing restrictions in the EAEU are a signal of the inefficiency of certain institutions, which should be brought to the attention of the supranational authority.

Summarizing the above, it should be emphasized that the thesis that high trade costs caused by non-tariff barriers hinder export diversification and will not contribute to poverty reduction¹²¹ in future, is confirmed by the example of Kyrgyzstan.

In addition to tariff and non-tariff barriers, the insufficient performance of institutions in dealing with export support and promotion contributes to export problems. The following main problems of institutions can be noted:

- **Inefficient Single Window System.** Since 2009 a single window for foreign trade has operated in Kyrgyzstan. This is a very important institution aimed at optimizing the administrative procedures in the preparation of the required documentation for customs clearance through creating a mechanism for effective data exchange. This institute was established on the basis of recommendations No. 33 of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the analysis of local conditions as well as studying the best international practices by a group of experts with the support of the German Society for International Cooperation and the United States Agency for International Development. For its preparation, a Concept of Introducing the “Single Window” Principle for the Foreign Trade of the Kyrgyz Republic was developed.

This organization carries out two functions: 1) creation and development of the “single window” information system (SWIS); 2) providing services and ensuring proper functioning of the “single window” system in the implementation of pre-customs procedures in import and export business for the participants of foreign economic activity.

Although the reduced number of documentary requirements is a key element in Kyrgyzstan’s trade facilitation efforts, the progress in rationalization and standardization of the information requirements, which form the basis of the electronic document flow, is limited. In fact, we must admit that in creating SWIS, there was no fundamental review of working practices and formalities of government bodies, some of which continue to work with paper foreign-trade documents.

- **A lack of transparency and openness in the consultative process.** Only 20 per cent of surveyed foreign trade entities reported that they took part in the consultations between the Government and private sector with most of them representing large enterprises. Moreover, some of the FEA participants indicated they did not consider such consultations particularly useful to find solutions to the problems they face. The National Trade Board founded in January 2008 has never operated. Although the adopted action plan for export development was transferred to the control of the Secretariat of the Investment Council,¹²² this was just addressing a separate issue and not the entire range of trade issues. At the same time, the Secretariat of the Investment Council is involved in a large number of issues to improve the investment climate and, despite the contiguity of this subject, its capacity for promotion of these issues is limited.

121 See Trade and Human Development. Central Asia Human Development Series. - UNDP: Regional Bureau for Europe and the Commonwealth of Independent States, p. 16

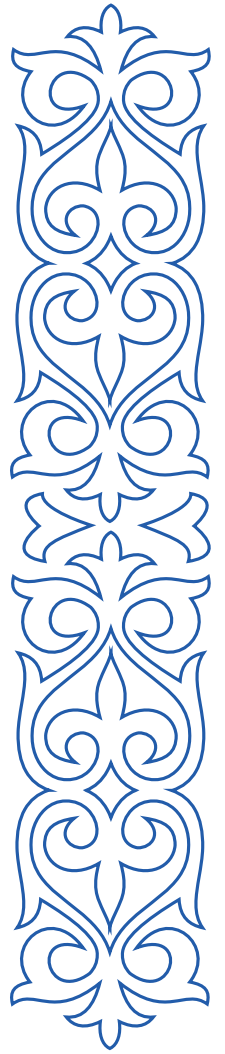
122 Business Development and Investments Council under the Government is the platform for the dialogue between the Government and business-community on the most important current problems of the business environment and business climate.

- **A lack of interdepartmental coordination.** Despite the fact that the responsibilities of the six government departments at major border crossing points are quite clearly delineated, the delay reported by the FEA participants was mainly due to the weaknesses of interdepartmental coordination, cumbersome inspection procedures, shortcomings in the customs clearance process and the weakness of the rule of law. The delays at border crossing points were also caused by a lack of adequate space and facilities available.
- **Uncertainty of export promotion mechanisms.** The existing institutions are focused on trade facilitation. Nevertheless, the promotion of products with comparative advantages needs other mechanisms. In 2013 and 2014, the country was preparing the Export Development Strategy (EDS), which sought to promote exports. The EDS draft covered the diagnostic of trade conditions that would provide a clear understanding of the situation in terms of macroeconomic indicators, existing development plans, directions of the country's trade policy and activities of trade support institutions. The characteristics and capacity of export competitiveness as well as the country's social and environmental situation were covered. Moreover, the EDS offered country-specific strategic approaches, detailed sectoral and cross-sectoral strategies¹²³ that allowed for the existing competitive advantages and problems, and a focus on higher value added. In conclusion, the paper specifies the key factors for the successful implementation of the Strategy to coordinate efforts in several directions and to ensure the sustainability of the Strategy. Ultimately, however, it was only the action plan for export promotion that was adopted, and as a result, those basic principles of goods promotion were lost. In October 2016 the State Agency on Investment and Export Promotion was established by merging of the "Single Window" Centre for Foreign Trade" functions and Investment Promotion Agency. It is assumed that the basic activity of this newly established institution will be support and promotion of goods with comparative advantages.
- **Insufficient coordination among state bodies of activities with the EEC.** Despite the short period of country's participation in the EAEU, disputed issues have already arisen repeatedly in the trade relations of Kyrgyzstan and its trading partners. Solutions to these issues have been delayed. On the one hand, this suggests insufficient coordination among state bodies of activities with the EEC; on the other hand, this casts doubt on the effectiveness of the supranational bodies. In any case, Kyrgyzstan should intensify work to remove such institutional barriers.

123 The draft strategy covered the following sectors: tourism, fruit and vegetable industry, meat industry, dairy industry, garment industry and bottled water. http://mineconom.gov.kg/index.php?option=com_content&view=article&id=2488:strateg-export&catid=188&Itemid=339&lang=ru

CHAPTER 3

INTERRELATION OF TRADE AND ENVIRONMENT



CHAPTER 3. INTERRELATION OF TRADE AND ENVIRONMENT

Society, environment and trade are not isolated from each other – there are multilateral relations between them. Increasing environmental damage relates both to the international and domestic trade; thereby its importance as one of the causes of environmental change increases. As economic globalization continues, and the global nature of many environmental problems becomes more and more obvious, and contradictions between multilateral systems of rules and policies that are applicable both to trade and environment will inevitably arise.

A potential type of development implies that, on the one hand, by developing the economy and infrastructure as well as creating new facilities and expanding trade links, Kyrgyzstan thereby improves some aspects of human development. On the other hand, this impairs the environment causing injury to the health of current and future generations. The Program of Transition to Sustainable Human Development marked that in 2012 Kyrgyzstan was 101 out of 132 countries by the Environmental Performance Index¹²⁴.

This objectively low rating indicates a high level of degradation processes for natural resources reflecting ineffective efforts by state and local self-government authorities in the sustainable use of natural resources. In the current situation, there is a need to develop a concept of interaction with nature, which would allow continuing the positive development of the society and the biosphere as a whole.

Therefore, one should clearly understand the interdependence between all the components that impact this development: first, the relationship between society, trade and environment are multiple, complex and important; and second, trade development itself does not have either necessarily a positive impact or necessarily a negative impact on the environment.

3.1. Trade and Sustainable Human Development

As mentioned in the first chapter, for the past two years, there has been an extensive discussion of the Sustainable Development Goals after 2015. The XXI century agenda adopted at the Earth Summit in 1992 and confirmed by the countries at the Summit Rio + 20 in 2012 developed the basic principles of sustainable development¹²⁵.

In this regard, trade was designated as an area conducive to the promotion of sustainable development, and it was noted that "... an open, fair, secure, non-discriminatory and

124 The Programme for Transition to Sustainable Development of Kyrgyz Republic 2013-2017, p. 84. http://www.gov.kg/?page_id=31364&lang=ru.

125 Materials of the official website of the United Nations Environmental Programme. –<http://www.unep.org/documents.multilingual/default.asp?documentid=78&articleid=1163>.

predictable trading system that is consistent with the objectives of sustainable development and leads to the optimal distribution of global production in accordance with comparative advantages is beneficial to all trading partners. In addition, improved access of exports from developing countries to the markets within the framework of sound macroeconomic and environmental policies would have a positive impact on the environment and, therefore, would be an important contribution to sustainable development.” These postulates are reflected in the sustainable development objectives related to trade as noted in the first chapter.

In addition, at the Earth Summit 1992 international policy for the first time developed the concept of “Sustainable Production and Consumption” to specify at the official level the relationship between environmental degradation and the production and consumption of goods and services.

“Sustainable Production and Consumption” is defined as a holistic approach that minimizes negative impacts on the environment from different systems of consumption and production, thus, promoting the quality of life for everybody. In this connection, it is necessary to determine the characteristics and methods of measuring sustainable human development as outlined below.

Sustainable Human Development Index

Two powerful concepts – “sustainable development” and “human development” – have been developed in parallel over the past three decades mutually enriching each other and gradually merging into the idea that the development path cannot claim the title of “human development” if it is not “sustainable”. In this case, the need to develop better tools for measuring sustainable human development is repeatedly emphasized.

While the Human Development Index has caught on well as a tool for measuring human development,¹²⁶ the similarly coordinated and intuitive measurement of sustainable human development is still lacking. The problems in this area are associated with both the selection of indicators and the operationalization of the sustainable development concept.

The approach used in this report¹²⁷ – **Sustainable Human Development Index (SHDI)** – is a pragmatic compromise on the measurement of sustainable human development. It is based on a certain understanding of “sustainability” as “the ability to maintain the achieved level of human development preventing [excessive] debt commitments of any kind”. It covers two aspects of development: achieved status (wealth status reflected by HDI) and the process (how such status has been achieved)).

The development status was covered by four indicators of the Extended HDI (**EHDI**) – the traditional three indicators – education, health and income as well as the indicator that covers

126 Although in fact it is an index of basic needs and loses the sight of freedom and “agent nature” of people, that is the ability and the opportunity to participate in the development. See Ivanov, Peleah (2010) From Centrally Planned Development to Human Development. http://hdr.undp.org/sites/default/files/hdrp_2010_38.pdf

127 The first attempt to develop the Index of Sustainable Human Development was initiated in 1995 by UNDP Armenia. The HDI was extended by a set of environmental indicators (UNDP Armenia, 1995). In 2012 Armenia organized a separate event within the framework of Rio + 20 Conference, which introduced a new index of sustainable human development in Armenia (developed with the help of UNDP Bratislava). The index was published by the Statistical Service of Armenia in the collection of environmental indicators (ArmStat, 2012). Based on this experience, UNDP Bratislava developed a regional index and calculated it for the region of Europe and Central Asia (Ivanov and Peleah, 2013).

the environmental aspects of development. The environmental aspects include the achieved status of development in such components as water, air, soil and environmental conditions.

The four indicators reflect the state of human development (what was achieved), but does not say how this was achieved (either in a sustainable or unsustainable way). Examples from many countries show that this can be done in various ways, which are often reduced to “loans at the expense of future generations” in the form of debts (financial, demographic, environmental and many others).

Within the context of the approach applied in this report, the aforementioned aspect is taken into account due to inclusion of the second component – the sustainability – which is defined as “the ability to maintain” the status in every dimension of human development. The schematic illustration of the method of estimating the index of sustainable human development published in this report¹²⁸ is presented in Figure 3.1.

Figure 3.1. SHDI Composite Components

Human Development Index				
+	Health	Education		Incomes
	Water	Air	Soil	Environment
= Extended Human Development Index				
+	Long and healthy life	High-quality knowledge	Decent standards of living	Sustainable use of natural resources
= Sustainable Human Development Index				

It should be noted that when calculating the SHDI, the transition from the country level to the oblast level entails a number of methodological problems. First, not all indicators are available at the oblast level. Second, at the oblast level the indicators can have a different meaning reflecting geographic or other features.

For example, in an oblast with hydropower concentration, the share of energy generated by the renewable energy sources will be significantly higher, although such energy can be transferred to other oblasts. However, after a series of consultations with the UNDP representatives, the statistical authorities determined a list of available indicators, which allowed to calculate the values of a sustainable development index for Kyrgyzstan and for its oblasts¹²⁹.

128 Publication of the values of sustainable human development index in Kyrgyzstan and its regions in this Report was possible thanks to Mr. Michael Peleah, the Programme Specialist of the UNDP Regional Office in Istanbul.

129 More detailed information about the SHDI calculation method and indicators selected for Kyrgyzstan are specified in Annex 2.

Box 3.1**Islambek, a private entrepreneur from the Osh Oblast:**

- We began to unite and work brings us satisfaction and income. The development of trade affects social, financial and economic aspects.

For example, our members of the cooperative began to take more care of health and rest. This year I have been to Issyk-Kul. Moreover, our family visited my daughter in Moscow. She and her husband are doctors (urologist and gynecologist), we also checked our health there.

The calculations show that in 2014 the value of the sustainable human development index was 0.434 in Kyrgyzstan, which was an increase of 25 per cent as compared to 2009. This was achieved owing both to the 10 per cent increase in the EHDI (the world is now a better place!) and to the 9.7 per cent decrease in losses (the achievements became more sustainable). At the same time, a positive trend was observed in all oblasts of the country (see Figure 3.2).

In 2014 the highest index values were in Issyk-Kul and Chui Oblasts with the highest values of the status and sustainability of the environment compared to the other oblasts. Batken Oblast significantly came off poorly against the other oblasts with almost half the SHDI value than the national level.

Poor economic development in Batken Oblast was accompanied by the low sustainability indicator, including significant emissions of pollutants, lack of sustainable access to sanitation, and a high share of solid fuel use.

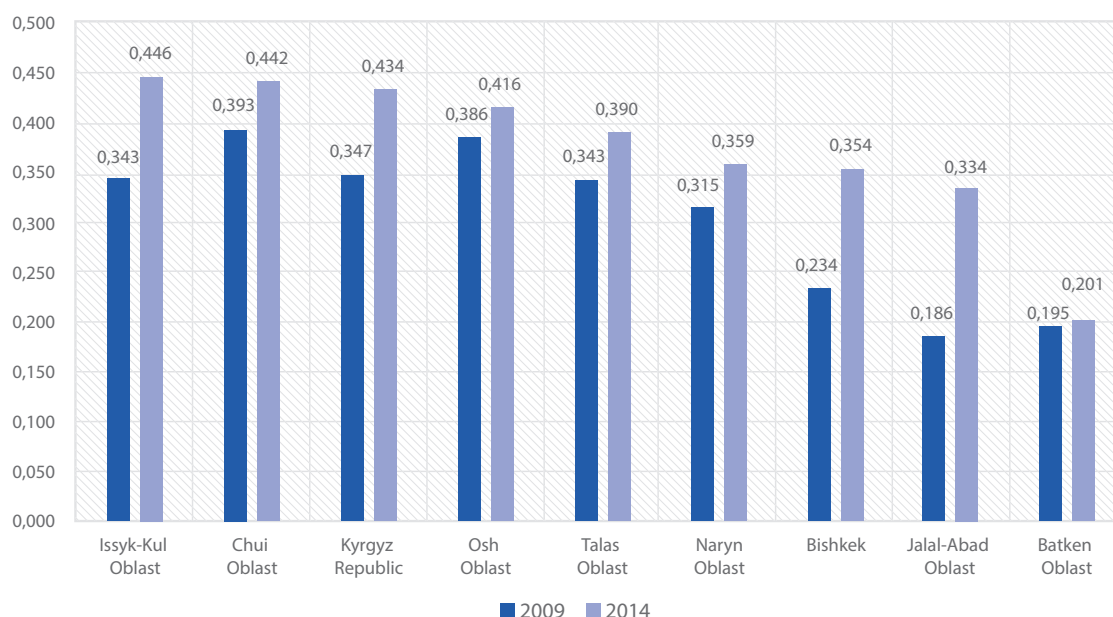


Figure 3.2. Dynamics of SHDI Values in terms of Oblasts of Kyrgyzstan

Source: Calculations by M.Peleah and the authors on the basis of data provided by the National Statistical Committee

When conducting the analysis of SHDI values, it is very important to address to what extent the country is “capable or not capable of maintaining” the achieved development status. This aspect is expressed through the value of loss in the extended HDI, which imposes losses for unsustainable development on the achieved status. For example, the estimated value of extended HDI in 2014 was 0.675 in Kyrgyzstan, while the SHDI was 0.434; that is, the EHDH quantitative loss due to the unsustainable development amounted to a 36 per cent reduction on the whole for Kyrgyzstan (see Figure 3.3.).

Losses: (-36%)

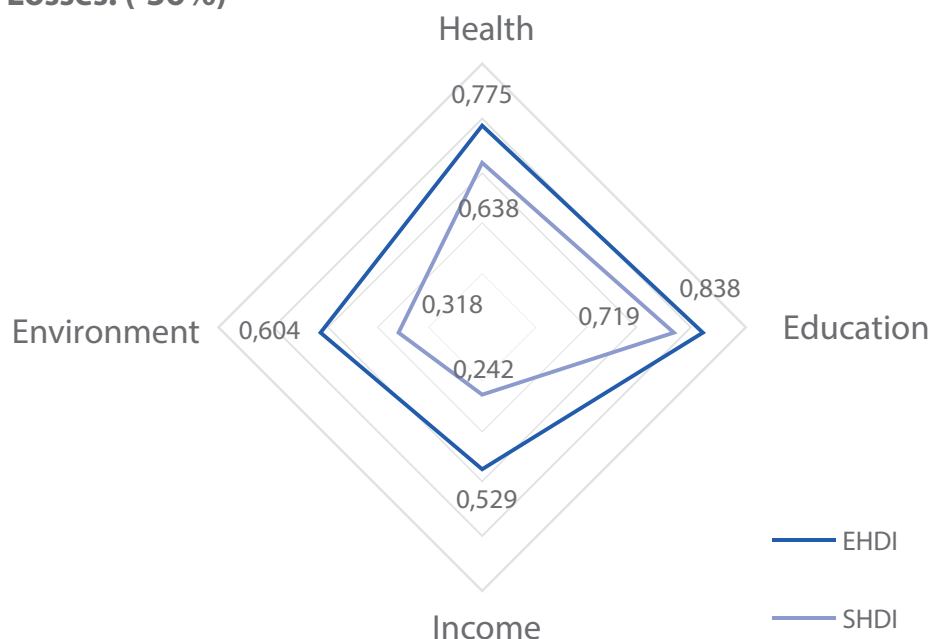


Figure 3.3. EHDH and SHDI Profile and Loss Rate in Kyrgyzstan in 2014

According to Figure 3.3., Kyrgyzstan “looses” due to the unsustainable achievement process for all index components. The biggest loss is recorded in terms of environment sustainability, in particular, in the treatment of emissions into the atmosphere, sustainable use of water resources as well as economic sustainability¹³⁰. In addition, the high incidence of major diseases reduces indicators of health sustainability, whereas the lower education quality indicators have impact on education sustainability.

In terms of the oblasts, the greatest reduced value is noted in Batken Oblast, which has already been mentioned above. Bishkek city records the second highest percentage of loss. The capital has the highest level of human development in Kyrgyzstan, but loses significantly in terms of the extended HDI due to economic sustainability indicators and the high incidence of major diseases (see Figure 3.4.). The smallest losses are recorded for Osh, Issyk-Kul and Chui Oblasts.



Figure 3.4. EHD and SHDI Profile and Loss Rate in terms of Oblasts of Kyrgyzstan

3.2. Physical and Economic Effects of Trade on the Environment

As previously stated, the role of trade is essential in terms of its effect both on human and economic development; however, trade has a specific effect on the environment. There are no simple relationships between society, trade, environment and development. Depending on a sector, a country, markets and prevailing policies, trade and its liberalization may be either beneficial or harmful to the environment and development.

As such, the effect of trade on the environment depends on the extent to which environmental protection objectives and trade may be complementary and mutually supportive. To create a positive effect, a well-chosen course is required both in the economy and environmental protection, both at the national and international levels.

In general, trade has four types of physical and economic effects on the environment and development: direct effects, product effects, scale effects and structural effects¹³¹.

Direct Effects. The direct effects include impacts on the environment caused by the direct implementation of trade.

The example of such effects may involve pollution associated with the transportation of goods. In particular, a study of the impact of the European Union's internal economic market on the environment made it possible to predict that increased pollution from trucks would prevail over all other environmental impacts.

Since trucks are mainly involved in the movement of goods in Kyrgyzstan, we can say that the direct effects of emissions due to increased trade turnover will continue to grow.

Note that these transportation sources contribute more than 80 per cent to air pollution, emitting specific and toxic substances hazardous to human health.

Meanwhile, a high levels of air pollution are observed in Bishkek– the most densely populated area that has enhanced business activity as evidenced by the complex air pollution index (see Table 3.1.).

Table 3.1. Complex Air Pollution Index (API)¹³²
of Cities in Kyrgyzstan in 2011-2014

City	Population(thous. people)	2011	2012	2013	2014
Bishkek	937,4	8,2	6,77	7,80	6,47
Kara-Balta	43,2	1,4	1,42	1,42	1,42
Osh	270,3	1,4	1,08	1,46	1,83
Tokmok	58,9	1,5	1,23	0,78	1,08
Cholpon-Ata	12,1	0,5	0,26	0,24	0,26

Source: Agency of Hydrometeorology under the Ministry of Emergency Situations

131 The Environmental Effects of Trade. – Paris: OECD, 1994.

132 API is a complex air pollution index, which is calculated for all cities, in which air quality monitoring is carried out. Air pollution is considered to be very high if the total API exceeds 14; high - at 7 < API < 14; relatively high - at 5 < API < 7; low - at API < 5.

Box 3.2. Hazard of POPs Storage

Since the Soviet era, Kyrgyzstan has most widely used the persistent organic pollutants (POPs), which contain pesticides, and were supplied in large volumes for agricultural purposes.

Their term of validity was quite short, and therefore the country has gradually accumulated large amounts of the pesticides. Today, a large amount of obsolete pesticides are buried and stored in the "burial grounds" and specialized warehouses in Naryn and Jalal-Abad Oblasts. According to some data, a portion of the burial grounds was opened, and chemicals have been widely used by people for personal purposes.

POPs that do not easily decompose can remain in the environment for a long time moving over a long distance.

According to international estimates, the average lethal dose for humans makes only about 0.5 milligrams per person weighing 70 kilogrammes, and the minimum effective dose is substantially less than the respective dose of known synthetic poisons.

Therefore, the question of their proper storage is of crucial importance for the prevention of environmental pollution and public health threats.

Source:

Environmental Information Service

"Ekois Bishkek", <http://ekois.net/>

Another direct effect of trade comes from invasive ("alien") species of insects, animals and plants brought by people into the oblasts where they successfully adapt and begin to propagate and supersede native species. They may be brought inadvertently or directly in imported goods (such as pests of agricultural products) or in the process of goods delivery (for example, in the packaging material or on board vehicles).

One such example is the American white butterfly, which was brought to Kyrgyzstan with imported agricultural products, despite the phyto-sanitary control at the border. As a dangerous quarantine pest, it affects more than 100 species of trees, shrubs and herbaceous plants.

Product Effects. Product effects occur when the product itself has an impact on the environment and development. On the positive side, trade can contribute to the spread of new technologies for environmental protection, such as, for example, boiler filters or microbiological methods and appropriate wastewater treatment equipment. It may also contribute to more rapid distribution of products or technologies that have a minor environmental impact (for example, photovoltaic panels or more economical hybrid vehicles) than those currently used. A country's openness to trade and investment can also help contribute to sustainable development to facilitate the transfer of new and improved technologies and management systems.

On the negative side, trade can facilitate the international movement of goods, which, in terms of environmental protection, would be better not to trade at all. This fully applies to products containing POPs as well as chemical products.

It is noteworthy that some of the effects of “unsustainable” products are addressed at the level of global policy. In 2002 Kyrgyzstan signed the Relevant Stockholm Convention on Persistent Organic Pollutants aimed at the final destruction of POPs. The Convention includes twelve chemicals informally named as the “dirty dozen”. These are the toxins causing cancer and disorders in the immune and human reproductive systems. They are dangerous for wildlife as well as disrupting ecosystems and posing a threat to living beings. According to the Convention, POPs must be banned for use, their production must be stopped and all stockpiles must be destroyed. In addition, transportation of POPs across borders of countries that signed Convention is banned.

Annually, a large amount of chemical fertilizers and pesticides (over 516 tons)¹³³ as well as potent and toxic raw materials are imported into Kyrgyzstan for the chemical industry. In general, chemicals, most of which are imported in the country (that is, traded), are characterized by relatively high use causing potential problems associated with the chemicals. The use of chemicals is one of the reasons for environmental pollution in the areas with obsolete pesticides burial, in areas exposed to pollution as a result of accidents, in areas with an accumulation of toxic waste causing pollution of surface water and groundwater. There are more than 50 facilities in Kyrgyzstan that use imported potent chemicals in their manufacturing process, among them 18 industrial projects are referred to hazardous facilities which use highly toxic substances.

The Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer (both ratified by Kyrgyzstan) are also devoted to the elimination of negative effects of the products containing ozone-depleting substances (ODS). Substances included in these international documents can significantly deplete or modify the ozone layer, which can have adverse consequences for human health and the environment. A list of trade products containing controlled substances includes a variety of manufacturing products that need to be changed. These include such widely used products as automobile air conditioners, refrigerators, freezers, aerosol products, portable fire extinguishers and other products.

To implement this Convention, Kyrgyzstan adopted and initiated the State Programme for Eliminating the Use of ODS Substances in 2008. According to it, by 2015 the ODS amount in Kyrgyzstan should be 16 grammes per person. However, due to the modernization and strengthening of regulations as early as in 2011, the Government was able to reduce the used ODS amount to 0.65 grammes per person.

The product effects sometimes alternatively called “technology effects” are associated with corresponding changes in production methods depending on the technology applied. The technology effects depend on how trade development influences the transfer of technologies and the technological processes applied to produce goods. The positive technology effects have a place in reducing emissions per unit of economic output. Whether the technology effects caused by trade development have, in general, a positive or a negative impact on the environment will largely depend on other conditions and policies on the market (for example, price or effectiveness of the national environmental legislation and institutions), which determine the availability and the choice of these technologies.

133 Environment in the Kyrgyz Republic. Statistical Collection 2011-2015. – Bishkek: National Statistical Committee, 2016.

Operation Scales Effects. Trade development can expand the level of potential economic activity making it more organized and productive. Such expansion, in essence, creates additional wealth and can have a positive impact on the environment and human development. However, in the absence of a regulatory framework ensuring that additional activities will not cause any harm, as well as the corresponding monitoring and control system, the growth of the economic activity scale will directly indicate the growth of environmental damage.

In this respect, even today Kyrgyzstan is threatened by mining waste to individual regions. Despite the current unsustainable indicators, the role of the mining sector in economic and social development of the country is quite significant and increasing daily. The share of mining production is more than 40 per cent of exports. It also accounts for more than 10 per cent of the GDP, and 11 per cent in tax revenues. Fifteen thousand workers are employed in the mining sector¹³⁴. Today mining is recognized as the main driver for developing industrial production in Kyrgyzstan.

It is noteworthy that as a result of all activities related to mineral resource development (exploration, extraction, processing), a huge amount of rock and slag is removed on the earth's surface and stockpiled with much of it remaining in the development areas as waste.

Over the past 80 years of intensive mining industry development, vast amounts of man-made structures have been accumulated in a number of areas of Kyrgyzstan in the form of waste rock dumps and unconditioned ores, tailings, slag collection points and ash disposal areas. The total volume of waste dumps, including coal, amounted to more than 700 million cubic meters in 2008, occupying an area of 1,500 hectares.

Along with the waste dumps, there were 55 tailings dumps occupying an area of 770 hectares, in which more than 132 million cubic metres of tailings were stockpiled. The largest is the Kumtor tailing dump with a designed volume of more than 110 million cubic metres.

The toxic and radioactive wastes are of particular concern. According to the State Cadastre of Waste Mining in Kyrgyzstan, there are 92 facilities with toxic and radioactive mining waste with more than 457 million tonnes of waste containing radio nuclides as well as buried harmful and toxic substances (see Figure 3.5).

134 Materials of the official website of the State Agency for Geology and Mineral Resources of the Kyrgyz Republic. – <http://geology.kg>. In this context, it is necessary to take into account that, as described in Chapter 2, according to the statistical nomenclatures, production at the Kumtor Company refers to the processing industry since the extracted raw material is processed into alloys.



Figure 3.5. Map of Toxic and Radiation Waste Burials, and Potential Contamination Areas

Source: Ministry of Emergency Situations

This waste is stockpiled near habituated areas which poses environmental hazards and triggers concerns among local residents. Among such areas, a particularly serious situation is located near a mercury enterprise (Aidarken village, Batken Oblast). Maximum permitted concentrations (MPC) in the air recorded for the working area make up to 15 MPC. Surface water sources and soil are significantly polluted.

Today, the state has no funds for remediation and recovery works in these areas. The support of international organizations and financial institutions is required to carry out these activities.

Structural effects. The country's trade development and integration into regional and global trade leads to an increased production of goods with comparative advantages, which can ultimately cause changes in the economic structure. This kind of structural effect may be either positive or negative for the environment and the development.

If the structure of the economy changes so that the share of sectors emitting fewer pollutants increases, then their sale will benefit the environment (at least at the national level; for example, when polluting companies simply move to another country).

Trade with countries with a high consumer demand for environmentally friendly products may also change the composition of the economy, in particular, if exporters respond to such demand by creating new products or sectors.

For example, the growing demand organic farming products sold at higher prices presents potential benefits for manufacturers and for Kyrgyzstan's environment. Although, usually, incentives for economic change towards environmentally friendly products do not come from the final buyers of the goods, but rather from other firms buying more environmentally friendly raw materials used in goods production.

On the negative side, if the goods successfully produced by the country are based on non-renewable resources or associated with significant pollution, the development of trade increases the share of these enterprises in the economy. In Kyrgyzstan, it is once again associated with the mining production¹³⁵.

The mining sector is one of the major sectors whose products are exported. At the same time, the development and operation of mining in Kyrgyzstan is fraught with many challenges, including:

- Conflicts between the companies and the community. This includes media related to environmental pollution including those related to negative public health effects and the lack of direct benefits local community development are shown in a small number of jobs provided.

At the same time, despite the 2014 amendments to the Law **On Subsoil**¹³⁶ that in more detail specified the involvement of local communities in decision-making processes, the very regulations and standards adopted to reduce the negative environmental impact are sometimes inadequate or non-executable in practice. In this context, it seems that an evidence-based approach and provision of full information about the environmental impact of the planned development are needed.

- A lack of transparency in the mining sector related to licensing and financial revenues and expenses; objective assessment of environmental impact and employment opportunities for the local population; as well as contribution to the development of local community are critical for sustainable human development in Kyrgyzstan.

The primary sectoral challenges include insufficient capacity of central government bodies and local government as well as legal litigation with investors, which need to be addressed to ensure additional sectoral investments.

- In addition, it seems that the procedures of allocating expenditures of local budgets financed from mining company contributions are required to be improved through legislation.

Such expenditures should be focused on activities aimed at the improvement of sustainable human development in the region (in contrast to the current situation where they are spent, for example, for cultural and entertainment purposes).

Thus, the implementation of comparative advantages, as mentioned in the second chapter, does not necessarily lead to human development.

When considering the development areas of trade and, consequently, of the other sectors included in the international trade, not only should economic considerations should be addressed, but also environmental and social development issues.

Below are the various illustrations of how trade affects the environment. The first such illustration is an example of “ecological footprint”.

135 In 2014 the total number of valid licenses in Kyrgyzstan for extraction of mineral resources and subsoil development equalled 1,347.

136 The Kyrgyz Republic Law On Subsoil adopted on 12 August 2012. In May it was revised and amended (Law On Revisions and Amendments to the Law On Subsoil).

Measurement of Ecological Footprint

Humanity uses services provided to it by nature too intensively, that is, faster than the time needed for the natural potential to recover for further production of such services.

To assess the needs of humanity on Earth's resources, an assessment tool called the "ecological footprint" is used, which reflects consumption of biosphere resources by people as the area of biologically productive land and water area required to produce the resources and waste assimilation¹³⁷.

The structure of ecological footprint includes land and water areas required to produce renewable resources used by humans, areas occupied by infrastructure as well as the areas needed for assimilation of waste.

Currently the applied method of calculating the ecological footprint covers the production of crop products, animal husbandry and fishery, and the consumption of wood, wood products and firewood. The only currently recorded "universal" type of waste is the CO₂ emissions produced by burning fossil fuels, land use and chemical processes.

To determine whether it is possible over time to meet the existing demand for renewable resources and services for CO₂ absorption, the size of the environmental footprint is compared with biocapacity of the planet, that is, its ability to reproduce resources and services consumed by people.

Since this Report is focused on trade, the study of the ecological footprint's components associated with the impact of imports and exports is important to determine Kyrgyzstan ecological footprint. Unfortunately, at time, there are no studies in these areas for the country, and calculation of the ecological footprint of consumption to some extent contributed by trade as well remains the subject of future studies.

Despite the calculations below of the ecological footprint which do not include any indicators directly related to trade, it is necessary to take into account the role of trade itself and economic impacts on the environment.

For example, CO₂ emissions associated with energy consumption of trading companies, transportation of goods and chemical processes of waste decomposition are promoted by trade. In addition, trade increases the demand for pulp, paper and wood processing industry products, subsequently used for packaging production, which then turn into waste and reduce forest areas.

To a lesser extent the trade affects other ecological footprint indicators, but nevertheless, the role of trade in forming the demand for other resources should not be neglected.

In 2007 the results of a global ecological footprint study showed that the average global ecological footprint was 2.7 global hectares (gha) per capita at a worldwide average biocapacity of 1.8 gha, which meant an overall deficit of 0.9 gha per capita.

It was noted that countries that did not have a sufficient amount of environmental resources experienced territorial ecological deficit and were called the debtor countries, and countries with a reverse situation – ecological creditors.

137 National Footprint Accounts Methodology. Global Footprint Network, 2008.

In 2007 Kyrgyzstan had an ecological footprint of 1.25 gha with a biocapacity at 1.34 gha, that is it had a stock of 0.09 gha and was an ecological creditor. In 2010 Kyrgyzstan was still among the countries that had not reached the average of 1.7 gha/person biocapacity and had the world ranking of 110 for its ecological footprint and 83 position by biocapacity¹³⁸. However, even at that time, the data on Kyrgyzstan's environmental footprint were not as positive, and it was noted that the country was starting to experience a biocapacity deficit¹³⁹.

Recent data of the ecological footprint study published in 2016¹⁴⁰ showed that in 2012 the ecological footprint left by Kyrgyzstan exceeded the value of the available biocapacity (Table 3.2.).

Table 3.2. Ecological Footprint and Biocapacity Components of Kyrgyzstan in 2012 and Changes as compared to 2010

	Ecological footprint, gha	As % of the total footprint	Changes by 2010	Biocapacity, gha	Deficit(-) / stock
Cropland	0,59	31%	-7%	0,5	-0,09
Pastures	0,18	9%	-11%	0,6	0,42
Forests	0,09	5%	1%	0,1	0,01
Carbon	0,95	50%	17%	-	-
Fishery zones	0,01	1%	0%	0,1	0,09
Built-up land	0,08	4%	-1%	0,1	0,02
Total:	1,91	100%	-1%	1,3	-0,61

Source: authors' calculations based on the data of the National Footprint Accounts, 2016 Edition

According to the calculations, in 2012, Kyrgyzstan experienced a deficit of biocapacity of 0.6 gha, which meant that the country consumed more biosphere resources than the biosphere was able to reproduce.

The biggest share of the ecological footprint fell on the share of CO₂ emission (50 per cent) – its contribution increased by 17 per cent compared with 2010. In addition, a large share of the ecological footprint left by Kyrgyzstan fell on arable land used for food production, animal feed, fibre, and other products (30 per cent), where the ecological footprint had already exceeded the biocapacity value.

138 Living Planet 2010: Biodiversity, Biocapacity and Development. – WWF: 2011.

139 Ecological Footprint of the Constituent Units of the Russian Federation. – M.: WWF Russia, 2014.

140 National Footprint Accounts, 2016.

First and foremost, the ecological footprint is an indicator of the macro-level, which can be used to assess the effectiveness of state environmental policies and to determine the relationship between human wellbeing and the environmental pressure to elaborate the incentives for sustainable development. There are many effective ways to change the dangerous trend of an increasing ecological footprint. The versatile approach requires a more efficient energy use in industry, construction and in all modes of transport as well as in households; in introducing renewable energy sources (including wind, small hydro, solar and geothermal as well as bio-energy); and in gradual reducing the emissions from burning fossil fuels using CO₂ capture and storage. As an interim measure, the use of natural gas can be expanded.

In Kyrgyzstan this issue remains, for the most part, at the level of the discussions of low-carbon development. As to the sustainable trade – including certification of goods and services based on the eco-efficiency of their origin – environmentalists in Kyrgyzstan have still a lot of work in this area.

Trade, Consumption and Waste

Another example of the interaction between trade and the environment is the problem of waste generation and utilization.

Facilitating consumption and production, trade is conducive to accelerating the turnover of products that sooner or later will turn into waste. It is obvious that the increase in Kyrgyzstan's import dependence also implies more waste generated upon expiration of the life cycle of products transported into the country from exporting countries. Speaking of consumption, it should be noted that the population's household spending is higher than the country's social spending.

The level of household consumption per capita increases along with changes in consumption patterns. Food and beverages, private transport and housing (including construction and energy consumption) are those consumption categories that cause the greatest environmental impact within the life cycle. In many transition countries, tourism and air travel are beginning to emerge as future key factors of negative environmental impact.

The impact of consumption on the environment can be mitigated by targeted monitoring in waste generation, use and disposal or through the transfer of demand from the consumption categories with higher levels of exposure to those with less exposure.

Public authorities can promote policies to improve environmental information and labelling, as well as enhance sustainable public procurement and economic instruments with market mechanisms.

There are three main types of waste in Kyrgyzstan: consumer, production and radioactive waste. Consumer waste involves products, materials and substances that have lost their consumer properties due to their physical or mental deterioration.

Consumer waste also includes solid domestic waste generated in the course of daily living activities. This waste category in most cases is controlled by the local authorities, that is, the organizers of waste collection, transportation and landfilling in designated areas.

Kyrgyzstan has accumulated a huge amount of solid domestic and industrial waste containing radionuclides, salts of heavy metals and toxic substances that adversely affect the environment and human health. According to statistics, the total amount of the accumulated and annually

generated waste are increasing; the areas of land used for waste disposal are increasing as well – and all this happens against the background of a poorly developed system aimed at reducing waste generation and recycling as well as introducing low-waste technologies.

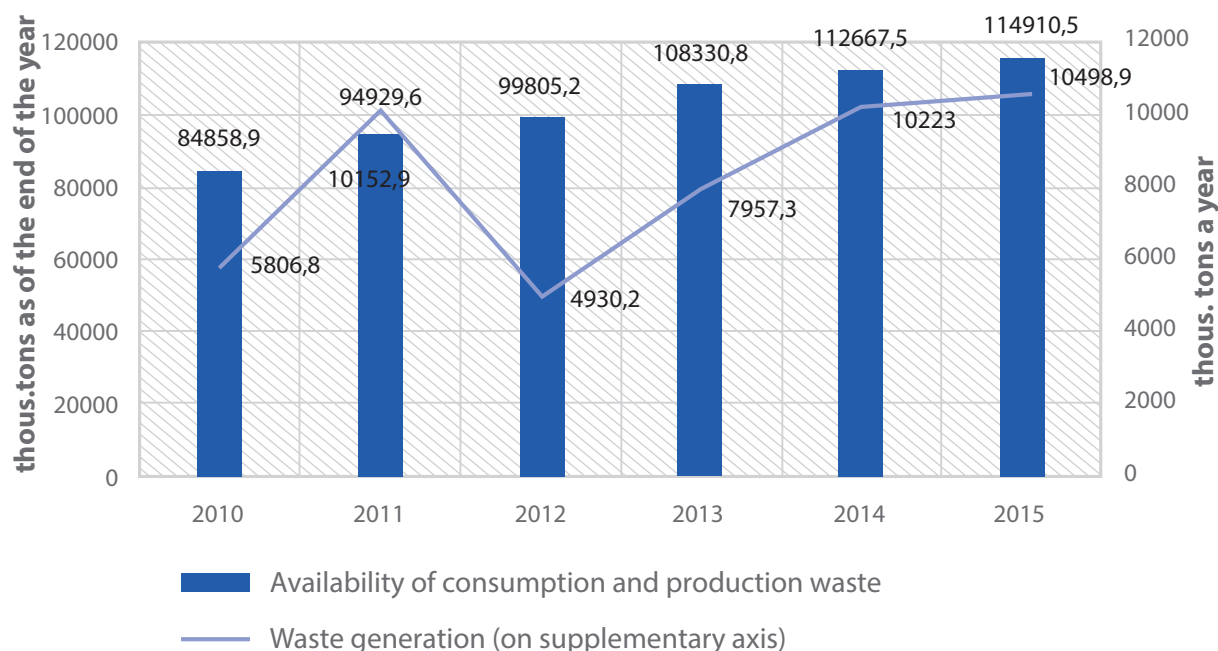


Figure 3.6. Generation and Availability of the Consumption and Production Waste in Kyrgyzstan, Thousand Tonnes

Source: National Statistical Committee

Figure 3.6. shows that the accumulation and annual generation of waste is growing steadily (with the exception of waste generation in 2012).

This is largely caused by the growth in production volumes, primarily by the mining sector, which is also conditioned by constant demand and by trade in the raw materials market (the recession in generation of waste in 2012 was conditioned by the same circumstance as there were problems at the Kumtor mine).

According to the Department of Disease Prevention and State Sanitary Epidemiological Surveillance of the Ministry of Health, in 2011, Kyrgyzstan had 31 consumption waste dumps, more than half of which (55 per cent) did not meet sanitary standards.

The consumption waste treatment system is not perfect; sorting of household waste and its use as secondary raw materials are not carried out, and recycling remains low.

The biggest consumer waste dumps in Bishkek, Osh and other residential areas of the country were located and used while violating sanitary and environmental requirements, and were a source of environmental pollution.

According to various estimates, about a third of municipal waste involves packaging and containers, that is, waste derived from the trade turnover¹⁴¹. For example, the annual

141 Tristan E. Ragsdale, Food Packaging Study. A Report on Environmental Impact presented to the Ashland Food Cooperative, 2005.

volume of garbage collected in Bishkek reaches almost 1 million tonnes, and the volume of waste delivered to the Osh city dump annually reaches up to 120 thousand cubic meters.

Nature is not able to process such an amount of garbage, especially because of the extremely slow decomposition process of plastic and polyethylene items, which are used more and more.

It is noteworthy that the statistics related to waste is rather limited and conditioned by the lack of reporting data in this field¹⁴². In general, as to the sustainable consumption, we note that in 2013 waste generation per person amounted to 1,456 kilogrammes in the country (see Table 3.3.).

Table 3.3. Generation of the Production and Consumption Wastes throughout the Territory
(per person, kilogramme)

	2010	2011	2012	2013
Batken Oblast	20,0	19,7	19,5	26,0
Jalal-Abad Oblast	5,5	5,2	14,9	14,7
Issyk-Kul Oblast	13 065,2	13 470,4	10 885,7	17 626,5
Naryn Oblast	1,2	0,8	0,8	18,7
Osh Oblast	0,1	0,1	0,1	0,0
Talas Oblast	-	-	0,0	2,1
Chui Oblast	20,5	19,2	22,3	23,2
Bishkek	185,1	4 717,1	139,5	111,2
Osh	1,6	1,2	0,0	0,0
Kyrgyz Republic	1 118,2	1 930,4	921,1	1 456,1

Source: National Statistical Committee

The problem of the production and consumption waste recycling and reuse is closely related to conscious consumption and the three known approaches recommended to reduce consumption as well as to reuse and recycle consumer products. Recycling and reuse of waste has been for long on the agenda of sustainable development in Kyrgyzstan. The

¹⁴² The lack of reporting data is confirmed by data on Osh Oblast and Osh City, where as per the official statistics for 2013 the amount of the production and consumption waste made 0.

country adopted the Law On Production and Consumption Wastes¹⁴³ aimed at preventing the negative impact of waste on the environment and human health.

Thus, Article 3 provides for “the use of economic incentive mechanisms for involving waste in economic circulation”. However, according to the findings of several studies, in practice there is no “incentive” or “turnover”. The inventory, monitoring, accounting and responsibility for unauthorized placement of garbage dumps are not available¹⁴⁴.

Waste management issues are within the competence of local authorities and should be addressed by each municipality independently. The situation with waste management is directly proportional to the size of the municipality’s population. But in general, the situation with the waste management and recycling is far from sustainable. According to the statistics, about 60 per cent of waste is subject to reuse (see Table 3.4).

Table 3.4. Use of the Production and Consumption Wastes in Kyrgyzstan in 2015, tonnes

Territory	Delivered waste, tons	Delivered for recycling, tons	% of total waste delivered for recycling
Batken Oblast	-	-	-
Jalal-Abad Oblast	3 410,4	2 423,4	71%
Issyk-Kul Oblast	11 737,4	9 426,3	80%
Naryn Oblast	403,3	-	-
Osh Oblast	52,3	52,3	100%
Talas Oblast	101,8	11,2	11%
Chui Oblast	1 295,3	771,8	60%
Bishkek	40 550,6	22 232,1	55%
Osh	76,4	-	-
Kyrgyz Republic	57 889,3	34 917,6	60%

Source: National Statistical Committee

¹⁴³ Law of Kyrgyz Republic On Production and Consumption Wastes No. 89 dated November 13, 2001.

¹⁴⁴ Materials of the official website of the “EKOIS-Bishkek” Public Association (Ecological Information Service). –<http://ekois.net/v-kyrgyzstane-vpervye-nachali-ekologicheskii-chistuyu-pererabotku-staryh-avtomobilnyh-shin/>



Preparation of bee houses in Karakulja district, photo of Public Union "Agrolead"



Automated corn drying process, Osh Oblast, photo by Azamat Kasymov

3.3. Environmental Goods and Green Technology

The environmental impact of trade will be minimized if environmental goods and green technology prevail in trade. The types and functions of environmental goods and green technology are extremely diverse.

The environmental goods and green technology markets also differ from each other; in this regard, the practice shows that in recent decades the supply and demand for environmentally safe products and services have grown rapidly.

There are many definitions of “environmental goods” and “green technology”. As early as at the 4th WTO Conference in Doha in 1994, the Trade Ministerial Declaration was adopted, which included a commitment to reduce or eliminate tariff and non-tariff barriers to trade in environmental goods and services¹⁴⁵.

First of all, this concerns the supplies from the developing to the developed countries. In recent years, the issues of defining the very list of environmental goods have been actively discussed at international forums such as the WTO, Organisation for Economic Co-operation and Development (OECD) and the Asia-Pacific Economic Cooperation (APEC).

However, as it turned out in the course of further negotiations, establish a definition of environmental goods can be a challenging task. There are many variations of this definition:

- products intended for use in environmental recovery or cleaning up (for example, oil spill disposal equipment), in prevention of environmental damage caused by industrial processes (such as air pollution control, waste management and energy efficiency) or equipment for environmental monitoring and analysis;
- technologies and products, which in their use are safer for the environment compared to the requirements. They include such consumer products as electric cars, and industrial products such as wind turbine and technologies of cleaner coal combustion;
- products manufactured in environmentally friendly manner (such as organically grown fruits and vegetables, waste-made paper).

Since the beginning of this century, a particular emphasis has been given to preventing pollution and cleaner production with many companies engaged in the development of environmental policies and technologies.

Thus, a shift of focus from the contaminating output to the production process and change of products and technologies has taken place¹⁴⁶.

The list is still not exhaustive. Nevertheless, there is already some progress; for example, a list of 54 environmental goods was adopted by APEC, to which reduced customs rates would apply. WTO also holds discussions about the list of such goods (see the classification of environmental categories and products in Box 3.3.).

145 Materials of the official website of the World Trade Organization. – <http://www.wto.org>

146 The environmental goods and services sector. Eurostat Methodologies and Working papers, 2009 edition. Luxembourg: Office for Official Publications of the European Communities, 2009.

In fact, environmental goods and green technology are a complex concept, which covers all sectors of the economy: agriculture, construction, energy, industry, transportation and others. They are currently being implemented in the entire chain of companies, including – in addition to production – consumption, management as well as industrial engineering techniques and waste management.

For example, green construction uses new insulating materials and alternative energy sources, while the treated warm air is used for heating; not only the construction materials are reused, but the disposed waste as well. Power generation is a key area among the main areas of green technology developments. The main areas of its “ecologization” are mostly relevant for Kyrgyzstan, such as enhancing energy efficiency and development of new energy sources, especially renewable ones.

Green technology is closely linked to the global trend of the transition to a new type of economy – resource-efficient and low-emission, that is, safe for the planet’s ecosystem. With the development and introduction of this field of relevant knowledge, there are positive effects such as job creation, a better quality of life and reducing the risk to human health. In this respect, a positive dynamics of the environmental goods’ global market can be observed. Despite the 2008-2009 economic crisis, the market size has doubled from 2002 to 2010 alone and continues to grow¹⁴⁷.

The statistics of environmental goods and services in Kyrgyzstan is only at the formative stage. Official statistics includes only the tourism sector that produces environmental goods and services in Kyrgyzstan (see Table 3.5).¹⁴⁸

Table 3.5. Production of Environmental Goods and Services

	2011	2012	2013	2014	2015
The share of tourist activities in GDP, as percentage	4,5	4,6	4,5	4,3	4,4
Export of tourist services, mln. USD	347,1	410,8	513,9	408,1	410,1
Import of tourist services, mln. USD	233,4	333,4	338,6	377,4	394,5
The number of holidaymakers, thous. of people	816,9	1199,4	1132,2	1245,0	1265,1
in formal sector	482,0	631,9	671,6	698,0	706,4
in informal sector	334,9	567,5	460,7	547,0	558,7

Source: National Statistical Committee

147 Green sectors in Eastern Europe and NIS: overview of general trends and policy challenges. – Vienna: UNIDO, Vienna, 2012.

148 Environment of the Kyrgyz Republic. Statistical Collection 2011-2015. – Bishkek: NSC, 2016.

Tourism is also considered to be one of the priority areas of economic development in the country. Despite fluctuations in the number of tourists related to external and internal shocks, as referred to in Chapter 2, there is quite evident an increasing trend (there was a growth rate of 40.3 per cent in the number of tourists from 2010 to 2014.).

However, it should be noted that the country's natural ecosystems recreational services operate without a proper assessment of the extent of their tourist capacity and need more effective study, monitoring and evaluation. In addition, the negative impact of tourism on the ecosystems lies in the loss of biodiversity, as, for example, hunting still continues to enjoy steady demand in the travel market, including the export of hunted animal products.

The classification of environmental goods in Box 3.3. makes it possible to estimate the sales turnover of environmental goods in Kyrgyzstan. Exports of environmental goods accounted for seven per cent of the total exports in 2013, while imports of environmental goods in the same year amounted to 22.1 per cent of the total volume of imported goods.

However, whereas for recent years a growth trend in the share of environmental goods imports has been observed – apparently as a reflection of the overall growth of the environmental goods in the world trade – but there is no question of any clear trend in environmental goods exports (Figure 3.7).

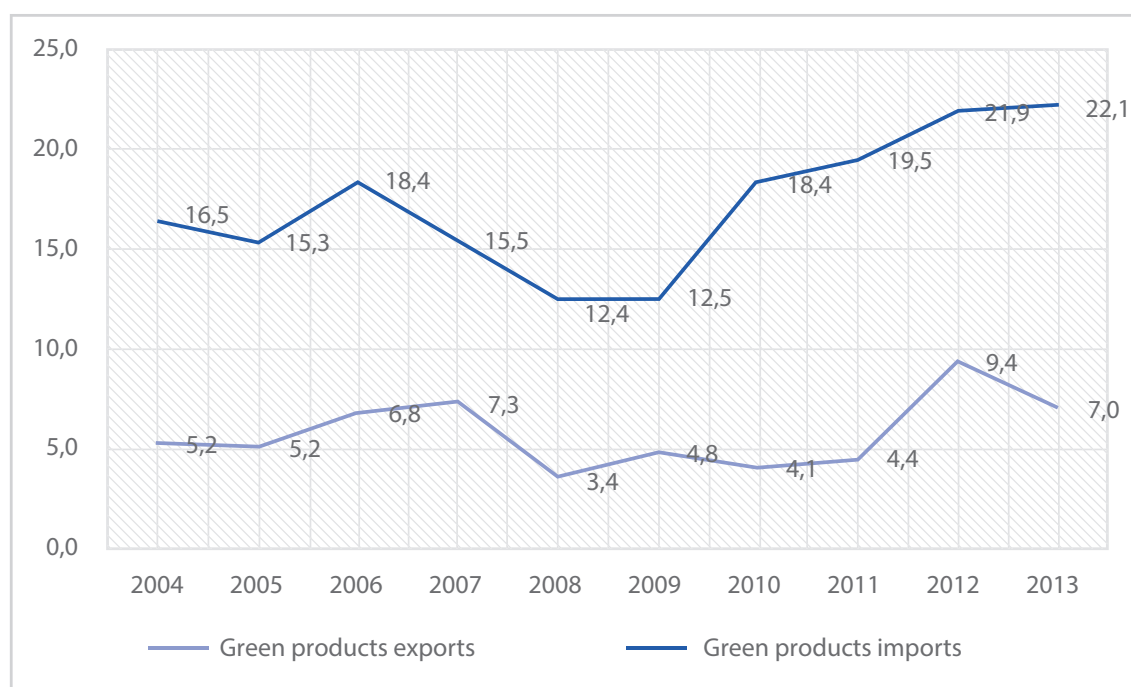


Figure 3.7. Exports and Imports of Environmental Goods as % of the Total Exports and Imports Respectively

Source: Authors' calculations based on the United Nations Comtrade Database - International Trade Statistics – Export Data

As follows from the analysis in the second chapter and the data above, a focus on the production of environmentally friendly or organic agricultural products has not yet become a priority in the development of the agricultural sector. At the same time, the country has

Box 3.3. List of Environmental Categories and Goods submitted for Discussion at the Special Session of the Trade and Environment Committee:

- *Monitoring of air pollution*
- *Renewable energy sources*
- *Waste management and water treatment*
- *Cleaning or reclamation of soil and water*
- *Management of solid and hazardous waste and recycling systems*
- *Waste management, recycling and recovery*
- *Wastewater management and drinking water treatment*
- *Environmental Technology*
- *Reducing gas flaring emissions*
- *Efficient use of energy technology*
- *More clean and resource-efficient technologies and products*
- *Energy efficiency*
- *Environmental monitoring and the analysis and evaluation equipment*
- *Management of heat and energy*
- *Disaster risk management*
- *Reducing noise and vibration*
- *Carbon capture and storage*
- *Other categories and good*
- *Environmentally preferable products based on the characteristics of the end-use or recycling*
- *Protection of natural resources*
- *Renewable food and energy sources*
- *Resource and pollution management*

Source: For more information see: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=75645&CurrentCatalogueIdIndex=0&FullTextSearch=

Note: this classification is convenient because it contains the codes of goods in accordance with the WTO's Harmonized Commodity Description and Coding System.

sufficient resource potential for its promotion; nevertheless, to develop organic exports, the agricultural sector has to solve a number of serious problems. For example, land degradation¹⁴⁹ is a serious economic and social problem related to the environment which Kyrgyzstan faces. The processes of farmland degradation currently pose a significant threat to food security and poses an environmental threat to sustainable development. Weak land management capacity exacerbates the situation. Small-contour farming emerged as a result of land and agrarian reform, and the low culture of agricultural production slow down the introduction of advanced technologies. The works to restore soil fertility are carried out inefficiently. The country does not have its own production of mineral fertilizers, and the amount of fertilizers used is decreasing every year.

Since 1985 the area of degraded land has grown substantially, and, according to different expert estimates, 65-80 per cent of agricultural land was recognized affected by degradation processes, but it should be noted that detailed monitoring has not been carried out since 1990. The average productivity of pastures has dropped to 40 per cent of the normal rate, and that of the middle pastures by 10-20 per cent. The structure and species composition of public herds also do not contribute to rational use of pastures.

In general, the whole sector is developing beyond the principles of sustainable growth, has a low productive capacity, low efficiency and low adaptability to changing climate conditions. Crop rotation and crop structure are disturbed. The level of agricultural technology needs to be improved. All this hinders the growth of crop and livestock productivity and, as a consequence, the development of organic agriculture in Kyrgyzstan.

This fact inevitably requires agricultural adaptation to the new conditions, a change in the structure of agricultural production and shift towards the production of high-quality competitive products. The absence of domestic appropriately accredited laboratories as well as systems for quality inspection and certification of agricultural products, confirming accordance with international requirements and standards, is also a major barrier to the development of domestic agricultural product exports.

Institutional Framework of the Trade and Environment Interaction

Improving the institutional framework of the interaction between trade and the environment should be implemented in two areas. First is the creation and improvement of the institutional framework for environmental protection in general, which will benefit all sectors of the economy; second is more specific and relates to special aspects of the trade and environment relationship.

The first area includes the issues of improving legislation, regulation as well as control and monitoring, including public evaluation. Over the past decade, Kyrgyzstan has taken important steps to improve environmental policies, legislation and institutions. As part of the regulatory reform, the framework environmental laws, the environmental components' laws and other relevant acts have been developed and updated.

All these laws have laid the general principles and system for environmental protection activities and regulation of social relations including trade. However, regulatory reform is still far from complete. The legislative process has been largely inconsistent and has led to

¹⁴⁹ The Global Environment Facility (2003) defines land degradation as "any form of deterioration of natural potential of lands which influences the integrity of the ecosystem by reducing either its sustainable ecological production or initial biological resources and support of its resistance to external effects."

the emergence of numerous legal gaps and contradictions between laws, regulations and instructions. Development of regulations goes even slower and more inconsistent than the adoption of framework laws. Many important areas of environmental legislation need to be reviewed and brought into line with international obligations under the conventions ratified by Kyrgyzstan.

In terms of improving the monitoring of compliance with regulations related to environmental protection, such functions were assigned to the State Inspectorate for Ecological and Technical Safety under the Government¹⁵⁰ by combining the control functions of nine different government bodies into a single inspection. This was quite a progressive step that reduced state administrative pressure on business including trade. However, the issues of improving cooperation between the state institutions should constantly be the focus of attention.

Although 13 ministries and departments as well as the private sector and non-governmental organizations deal with diverse aspects of environmental protection and monitoring, currently Kyrgyzstan is facing many difficulties in maintaining and improving the environmental information system. There is still no unified national system of environmental monitoring.

Particular attention should be paid to the development of public expertise. The Law On the State Ecological Expertise provides for the possibility of conducting public environmental expert reviews on the initiative of citizens and communities. As noted above, in recent years the environmental consequences of economic activity have caused social conflicts, which involve a minimum of three interest groups: businesses, the Government and the local population. At the same time, the public environmental expert review becomes an effective tool for protection of environmental rights of citizens and public control, and makes it possible to assess the quality of the prepared project documentation and to draw conclusions on the potential environmental, social and ecological as well as economic consequences of business projects' implementation. The public environmental expert review can be carried out in respect of the same objects as the state expertise does, with the exception of the objects with secret data, which is protected by law. However, it should be noted that the public has a right to access environmental information. The data on the state of the environment can constitute neither a state nor a commercial secret.

The results obtained in the course of the public environmental expert reviews and set out in their conclusions, are advisory in nature, and contribute primarily to raising awareness of all the above interest groups to achieve a mutual compromise. The experience of conducting the public environmental expert review showed¹⁵¹ that the public expert review considers a wide range of issues and can be a good addition to the state expertise. Unlike the state expertise, the public expert review may involve a wide range of economic, legal, social and other issues not directly related to environmental protection and falling beyond the competence of the state ecological expertise.

This practice could serve as a basis for work on the second area of the institutional development of trade and the environment interaction. This involves the creation and development of an independent expertise system that would evaluate and certify the proper environmental quality of goods and services sold as well as sustainable management of natural resources used for the manufacture of a product. As an example of such certification, a "star" system for assessing the

150 Government's Resolution for the State Bodies under the Government of the Kyrgyz Republic and other Organizations administered by the Government of the Kyrgyz Republic No. 12 (12 January 2012) and the Jogorku Kenesh's Resolution No. 1452-V About the Structure of the Government of the Kyrgyz Republic (23 December 2011).

151 NGO Independent Ecological Expertise and LLC Ecopartner. Practical Advice on Environmental Risk Assessment. - Bishkek: 2015.

hotel business quality can be taken; the assessment is conducted by the hotel community itself and based on corporate social responsibility. The results of this approach have been already evident in retail chains of Kyrgyzstan in the form of numerous products labeled as “environmentally friendly product”, which is perceived only as a marketing tool of manufacturers as it has not been confirmed by publishing relevant studies.

As an example of regulating the specific relationship between trade and the environment, the issues of consumer protection can be marked. As noted in Box 3.4., the right to security, that is to be protected against products, production processes and services which are hazardous to health and life, and the right to a healthy environment, are among the most important consumer rights.

Based on the identified consumer rights, it is necessary to conclude that consumers should keep in mind that the most fundamental right is the right to full, objective and reliable information provided in understandable terms. This means that when buying goods of a seller or services and work of a provider, one should in detail find out about the conditions under which such goods or services are acquired.

The issues of consumer protection are regulated by the Law On Consumer Protection. In Kyrgyzstan, the State Agency for Anti-Monopoly Regulation under the Government operates and one of its objectives is the state protection of consumer rights. However, apart from it, another three public bodies deal with consumer protection: the Center for Standardization and Metrology, the Department of Disease Prevention and State Sanitary Epidemiological Surveillance, and the State Agency on Environmental Protection and Forestry. In addition, the consumer problems are addressed by local government bodies, public associations of consumers and the courts. However, among all the authorities involved there are no clear coordination and cooperation mechanisms, or transparency of decisions related to the consumer rights.

Thus, it should be emphasized that sustainable development is primarily determined by efficient interaction of the institutional framework aimed at ensuring smooth functioning of the trade institutions and the environment. In general, there are institutions today that ensure implementation of basic functions of regulating relationships between trade and the environment. However, the available relevant legal regulations and institutions still have not achieved harmonious development as the main disadvantages lie in the absence of systemic coordination and good enforcement practices of sustainable development all across Kyrgyzstan.

Box 3.4. Consumer Rights specified by the Consumers International:

1. *The right to satisfy primary needs (to have access to primary and essential goods and services).*
2. *The right to security (to be protected against products, production processes and services hazardous to health and life).*
3. *The right to be informed (to obtain the facts necessary to make informed choices and provide protection against unfair advertising and labeling).*
4. *The right to choose (to have opportunity to select from a range of goods and services of satisfactory quality).*
5. *The right to be heard (in order that consumers' interests were represented in the adoption and implementation of government policies and in the development of goods and services).*
6. *The right to reparation (to receive fair compensation for legitimate claims including compensation for misrepresentation, defective goods or unsatisfactory services).*
7. *The right to consumer education (to gain knowledge and skills necessary to make an informed and personal choice of goods and services having knowledge of the consumers' basic rights and obligations and how to use them).*
8. *The right to a healthy environment (in order to live and work in an environment that does not threaten the wellbeing of present and future generations).*

Source: Government Resolution No. 271 (17 May 2013)

CONCLUSION

The main objective of the National Human Development Report is to analyze the relationships between trade and human development in Kyrgyzstan. These relationships are diverse and complex. The report examines the impact of trade on human development and its main components: education, health, social inequality and the environment through direct and indirect channels as well as, where appropriate, shows significant feedback and multiple effects. Given the diversity of these relationships, the report focused on issues that were emphasized during the preparatory consultation process with the focus groups and in the UNDP Regional Report on Trade and Human Development in Central Asia 2014.

The positive aspects of the human development index have been noticeable in recent years. Thus, in terms of this index growth, Kyrgyzstan is the leader among all Central Asia and EAEU countries. At the same time, the country ranked next-to-last according to the index among those countries. It should be emphasized that the inequality-adjusted human development index has one of the highest rates of loss in the region.

It should be recognized that a positive trend both at the country and oblast levels has been largely determined in recent years by the Government's increased attention to the individual components of human development. The National Sustainable Development Strategy 2013-2017 comprises the basic principles of sustainable development; moreover, the Kyrgyz Republic Programme for Transition to Sustainable Development 2013-2017 implementing the NSSD included human development indicators in a separate matrix for monitoring the programme's implementation.

Significant steps were made on programming and institutionalization of the SDGs. In 2013 extensive national consultations on priority development areas after 2015 were carried out, the purpose of which was to identify the most urgent priorities and areas of further development in the country. In 2015 the National Voluntary Presentation containing the achievements in key areas of the transition from the Millennium Development Goals to the Sustainable Development Goals was developed. At the end of 2015, based on the Government Resolution No. 867 (22 December 2015), the Coordinating Committee for SDG Adaptation, Implementation and Monitoring up to 2030 in the Kyrgyz Republic was established.

Kyrgyzstan achieved apparent success in separate components of human development: extreme poverty reached 1.2 per cent in 2014, the literacy rate in Kyrgyzstan was very high and exceeded 99 per cent, the share of population with only primary education or with no education at all reduced, the proportion of women with secondary and higher vocational education (including incomplete higher education) was much higher than that of men, and the share of children covered by basic general education was quite high and tended to increase with minor gender differences. The life expectancy is increasing in Kyrgyzstan, but despite this figure is not as high as in more developed countries. Moreover, Kyrgyzstan declared that the MDG on child mortality was achieved.

However, for many other indicators progress is not noticeable. After the high rates of poverty in the late 2010s, and only in 2014 the poverty rate became lower than in 2009. There is an increase in income inequality, and the reduction of multidimensional poverty is minor. Despite the population's high level of education, the quality of education has fallen in general.

Coverage of secondary education is low, and there is no indication of a positive trend. Moreover, the state of the education sector is compounded by the fact that poverty tends to spread among those families, in which the household heads have lower levels

of education. The maternal mortality in the country is one of the highest in Central Asia; maternal mortality figures remain largely inconsistent and here is virtually no reduction.

The Programme for Transition to Sustainable Development stressed that by 2012 Kyrgyzstan had ranked 101 in the index of environmental achievements ahead of all the Central Asian countries, but effectively a low environmental rating indicated a high level of degradation processes in natural resources reflecting a decrease in the efficiency of government activity and local self-government authorities' sustainable management of natural resources. The elaborated sustainable human development index has shown that Kyrgyzstan loses up to 36 per cent due to uneven achievements on all components. In addition, the most significant losses are noted in environmental protection and economic sustainability.

Despite the serious problems in social sectors, it should be noted that the human development index is supported by stronger ratings in health and education, which make it possible to maintain a relatively high position of Kyrgyzstan in these important ratings. That is, precisely because of the low level of economic development, Kyrgyzstan lags behind the other countries comparable to it in terms of social sector development. In this regard, this Report reviews in detail the reasons for the slow economic development and, in particular, reveals the role of trade, which compensated the slowdown in the economic growth throughout the development period, although not completely. This is especially important as trade namely has made a decisive contribution to human development, which is confirmed both at the national level as a result of the above analysis and at the international level. A very important fact is that the promotion of trade is directly reflected in the SDG 17, when the global partnership is focused on promoting equitable multilateral trading system and promoting the development of exports in developing countries and, indirectly, in parts of other goals.

Trade influences human development in different ways. It generates income, creates working places, promotes development of small businesses in various sectors and, as a result, creates opportunities to improve human capital investments and reduce inequality. A special role of trade is in enhancing women's participation in political and social life, and reducing gender inequalities. Trade played a very prominent role in overcoming the crisis in Kyrgyzstan as without its contribution to GDP growth, although rates were rather moderate, such rates would be even lower. But trade by itself is experiencing significant barriers, especially in foreign trade. Exports and imports of goods, re-exports and exports of services began to decline in recent years.

Although the reduction in exports coincided with the entry into the EAEU, and the first signs of trade reorientation in favour of countries further abroad appeared, it, nevertheless, should be emphasized that not the entry itself into the alliance was the reason for country's trading problems, but the overall situation in the regional markets, and in particular, the economic problems of Russia, which through different channels spread to all EAEU countries. At the same time, joining the EAEU exposed Kyrgyzstan's existing economic problems and stressed the difficulties for exporters to overcome the country's tariff and non-tariff barriers. Difficulties in trade and in the economy on the whole will lead to escalation of human development problems in the country.

The income of all economic actors, private sector, government and the public is declining. In the near future, the problems of financing the primary social sectors, such as education, health and social security, will become noticeable. Financing of environmental protection will also have some challenges, but it is possible that the environment will endure a greater impact because of the preservation of raw specialization and forced decisions (due to the economic crisis) for development of industries that are potentially damaging to nature.

In these circumstances, the Government, private and non-governmental sectors should pay more attention to all development aspects related both to trade and to human development. In this regard, the institutions dealing with strengthening both human and economic development play an important role.

Given governmental bodies' intention to elaborate a long-term strategy, special attention should be paid to the adaptation of global goals at a qualitatively higher level than those implemented in relation to the MDGs. It is necessary to take into account the recommendations that have already been considered in a number of documents including the National Voluntary Presentation and the Methodological Recommendations for the Process of Adaptation of the Global Sustainable Development Goals in the Kyrgyz Republic. It is necessary to strengthen the work of the Coordinating Committee for SDGs Adaptation, Implementation and Monitoring in terms of developing national goals, objectives and targets as well as aligning sectoral priorities, including coordination of the budget priorities with the strategic ones. At the level of the Committee cooperation should be established with already existing inter-sector coordination committees. In its turn, it supposes extension of donor participation and civil society at all levels of inter-sector cooperation, including at the national level. The strategic planning system should be further improved. It is also important to determine how the SDGs should be used for preparation of all types of strategic documents. In connection with this, elaboration of the adaptation concept of the SDGs to the national conditions can be useful.

It is necessary to pay special attention to defining indicators on the basis of the SDGs and corresponding formation of the monitoring and evaluation system. In addition, localization of the SDGs at the regional level will require to not only establish a number of institutions at this level but will set new requirements for the quality of statistics both in relation to data collection and implementation of new methodologies of data collection and analysis. It is worth considering the possibility of implementing a system of human development indices into long-term strategy monitoring and evaluation approaches. Attention should also be paid to strengthening the methodology of all indices, including HDI, SHDI and MPI. The long-term strategy should still be focused at the reduction of monetary poverty. However, it is necessary to shift the emphasis to reducing inequality in both consumption and income, as well as reducing deprivation-related poverty. Interaction with the United Nations Development Group should be strengthened on all stated directions as part of the common MAPS approach¹⁵².

It is quite true that there is some progress in improving the country's institutions as, according to the global indicators of governmental administration, positive trends have emerged in recent years. However, there are no sustainable results in terms of a number of indicators – for example, in the fight against corruption – which, nevertheless, is recognized by the state itself. However, political will has been expressed to institutionalize the fight against this scourge as well as in joint actions of civil society and the state apparatus at the highest level. Kyrgyzstan is the only country in Central Asia which has developed and used the population confidence index to assess the quality of public institutions. This government initiative demonstrates the ability of the formal state institutions to respond to civil society demands by increasing the openness of the state bodies and building a new practice of interaction between the Government and citizens.

It is important for academic attitudes towards institutions to turn into practical steps. Academics need to work on the development of specific sectors of human development.

152 MAPS (Mainstreaming, Acceleration and Policy Support) was adopted by the UN Development Group in October 2015 as the common approach to support implementation of the 2030 Agenda for Sustainable Development.

This Report provides such avenues, for example, the issue of elaborating a Women's Entrepreneurship Programme was never realized. Work on this issue can be conducted in cooperation with donors rather than the state as the main development institution. Border trade needs considerably better support. The institutional support for foreign trade should also be improved. It is necessary to increase the effectiveness of both the "Single Window" Centre and the State Agency for Investment and Export Promotion. Export promotion should be based on an analytical examination of the weak realization of the potential of revealed comparative advantages, including exports of services.

Such analysis should be carried out continuously and lead to supporting immediate decisions at the governmental level. It is necessary to strengthen transparency and openness of the advisory process, increase the level of inter-agency coordination, and specify and improve mechanisms of export promotion. One of the results to improve the institutional system of foreign trade should be a sharp increase in exports of environmental goods and services, and the elimination of negative physical and economic impact of trade on the environment. Kyrgyzstan has every opportunity to achieve significant progress in human development based on accented approach to the promotion of basic human development components.

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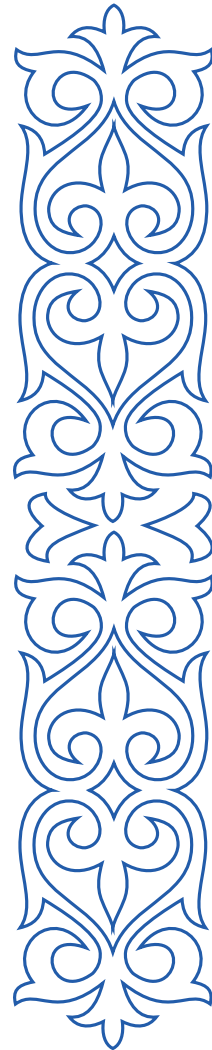
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ANNEXES



ANNEXES

ANNEX 1. Methodological Explanations

The Human Development Indices contained in the National Report on Human Development of the Kyrgyz Republic are based on the below mentioned individual innovations identified in the Global Report on Human Development 2010.

The literacy rates and education coverage (total number of pupils and students) specified in the **Human Development Index (HDI)** are calculated as the geometric mean (arithmetic average with two-thirds weight for literacy giving greater weight to the results achieved rather than to future developments; in particular, with virtually 100 per cent literate population of Kyrgyzstan, the HDI now provides a distorted picture) of average and expected number of years of education respectively.

As for incomes, the GDP was not replaced by the gross national income (GNI) as it was quite difficult to assess the international financial flows at the regional level.

The threshold values that were previously fixed are now established based on the observed maximum values. In terms of the functional form, the arithmetic mean was replaced by the geometric mean. To calculate the incomes value, the logarithm of 75,000 was taken for the GDP value.

In terms of gender inequality, the Global Report has continued to use the **Gender Inequality Index (GII)** and the **Women's Capacity Building Index (WCBI)** adapted to reflect changes in the HDI. Thus, the functional form of the geometric mean was applied for the aggregation. The threshold values in life expectancy were set at the maximum observed – 87.5 years for women and 82.5 years for men.

Further, it was calculated as hybrid index. Moreover, since the GII analysis only makes sense when compared, the GII relative drop was calculated in relation to the HDI.¹⁵³ Despite some imperfections, the GII and the WCBI allowed, on the whole, to assess the dynamics of gender inequality in Kyrgyzstan.

Multidimensional Poverty Index (MPI) has been adapted to the conditions of Kyrgyzstan. The following indicators were used for the calculation of 2010-2014 MPI in Kyrgyzstan:

- I. Health and Nutrition:
 - 1) quality of food;
 - 2) access to health care.
- II. Education and employment:
 - 3) coverage of the school age children or the number of unemployed adults;
 - 4) the number of persons who have not reached the required level of education.
- III. Quality of housing:
 - 5) lack of access to fresh drinking water;
 - 6) absence of toilets.

IV. Unstable material conditions:

- 7) level of relative poverty;
- 8) availability of debt constituting more than 30 per cent of the costs. At the same time, a household is considered poor if it is deprived of 25 per cent of all the indicators.

ANNEX 2. Sustainable Human Development Index (SHDI) in terms of the Kyrgyz Republic Oblasts

The SHDI calculations are carried out based on the indicators selected for Kyrgyzstan's oblasts shown in Tables 1-3.

Table 1. Indicators for the Environmental Component of the Extended HDI for Kyrgyzstan

Area	Ideal indicator(s)	Country available indicator(s)	Country available indicator(s)
Water	Water pollution	Access to improved source of water	Population share with access to fresh drinking water, %
Air	Air pollution	Air pollution PM2.5	Emissions of air pollutants from stationary sources per capita, kilogrammes
Soil	The share of degraded soil	Depletion of mineral resources (as % of Gross National Savings)	The share of unused arable land due to salinization and waterlogging, lack of irrigation, and irrigation network failure as well as susceptibility to natural disasters, %
Forests	Loss of forests against the base year	Area of forests as percentage to the base year (1990)	—
Biodiversity	Loss of biodiversity	—	—
Life Environment	Population share covered by garbage collection and treatment	Access to improved sanitation facilities	Population share with sustainable access to canalization at place of residence, %

Table 2. SHDI Sustainability Indicators for Kyrgyzstan

Area	Ideal indicator(s)	Country available indicator(s)	Oblasts available indicator(s)
Long and healthy life	Health (or without physical disability) life expectancy	Life expectancy without physical disability	Per 100,000 of population: 1. The incidence of respiratory diseases, with the diagnosis established for the first time 2. The incidence of the circulatory system diseases with the diagnosis established for the first time 3. The incidence of active tuberculosis with the diagnosis established for the first time
Knowledge	Quality of education – the results of comparable tests	Reaching the last grade of primary school, total (as % for a cohort)	Share of pupils who got less than 80 marks for the basic national testing, %
Decent standard of living	Sustainability of the current consumption model	General government debt (as % of GDP) Energy consumption (in kg of oil equivalent) per USD 1,000 of GDP (in constant prices of 2005 as per PPP)	Loss-making enterprises, as a percentage of the total number of enterprises in the region, %
Environment			
Water	Sustainable use of water resources	Water abstraction as a percentage of inland waters	Loss of water when transported through the territory, as % of total water abstraction
Air	Purification of air emissions	—	The use of solid fuels (stove, fireplace) for cooking, %
Soil	Soil degrading rate	—	—

Forests	Rate of forest losses against the base year	—	Forest area as percentage to the base year (2005)
Biodiversity	Biodiversity protection measures	The share of territory in protected terrestrial and marine zones	—
Life environment	The waste share subject to collection and recycling	Share of renewable and sustainable energy	—

Table 3. Indicators and Values for Indexing

Layer/ Area	Indicator	"Min" and "max" values
Status		
Long and healthy life	Life expectancy at birth, years	20–85
Knowledge	Literacy rate, %	0–100
	Total share of population covered by education, as % of the population aged 7-24 years old	0–100
Decent standard of living	GRP per capita as per PPP, USD	100 – 75,000, the value logarithms are used
Environment:	Emissions of air pollutants from stationary sources throughout the territory (per capita, kilogrammes)	30–0
	Population share with access to fresh drinking water, %	0–100
	The share of unused arable land due to salinization and waterlogging, lack of irrigation, and irrigation network failure as well as susceptibility to natural disasters,%	10–0
	Population share with sustainable access to canalization at place of residence, %	0–100
Sustainability		

Long and healthy life	The total of three disease incidences (per 100,000 of population) 1. The incidence of respiratory diseases, with the diagnosis established for the first time 2. The incidence of the circulatory system diseases with the diagnosis established for the first time 3. The incidence of active tuberculosis with the diagnosis established for the first time	50000–1000
Knowledge	Share of pupils who got less than 80 marks for the basic national testing, %	50–0
Decent standard of living	Loss-making enterprises, as a percentage of the total number of enterprises in the region, %	50–0
Environment	The use of solid fuels (stove, fireplace) for cooking, %	50–0
	Loss of water when transported through the territory, as % of total water abstraction	50–0
	Share of forest covered areas, as % by 2005	80–100

SHDI values are calculated in several stages:

1. The indices are calculated by areas: health, education and the environment. The indices are calculated according to the formula $I_x = \frac{x - x_{\min}}{x_{\max} - x_{\min}}$, where x is the real value of the index, x_{\min} is the minimum value and x_{\max} is the maximum value¹⁵⁵. Where there are several indicators for an oblast (education, the environment), the geometric mean of individual indices is taken.

2. EHDl is calculated as the geometric mean of the EHDl indices =

$\sqrt[4]{I_{\text{Health}} \cdot I_{\text{Education}} \cdot I_{\text{Incomes}} \cdot I_{\text{Environment}}}$, where *health, education, incomes and the environment* are the relevant areas of “health, education, incomes and the environment”.

3. The sustainability indices are calculated by areas, that is, health, education and the environment. The indices are calculated according to the formula $S_x = \frac{x - x_{\min}}{x_{\max} - x_{\min}}$, where x is the real value of the index, x_{\min} is the minimum value corresponding to the complete unsustainability, and x_{\max} is the maximum value corresponding to the complete sustainability. Where there are several indicators for an oblast, the geometric mean of individual indices is taken.

4. SHDI is calculated as the geometric mean of the indices taking into account the sustainability SHDI

$$= \sqrt[4]{(S_{\text{Health}} \cdot I_{\text{Health}}) \cdot (S_{\text{Education}} \cdot I_{\text{Education}}) \cdot (S_{\text{Incomes}} \cdot I_{\text{Incomes}}) \cdot (S_{\text{Environment}} \cdot I_{\text{Environment}})}$$

154 Short designation of “incomes” refers to a component of the decent living standards, which are traditionally valued by the indicator of GDP/GNI per capita.

155 The index is limited by 0 and 1.

APPENDIX 3. Multidimensional Poverty Index 2010-2014.

Table 1. Components of the Multidimensional Poverty Index (MPI)

Group	Indicator name
Health	Less than 2,100 kilocalorie intake
	Cannot get the doctor's help
Education	School age children not covered by education or unemployed adults
	Failed to reach relevant level of education
Infrastructure development	Open source of drinking water
	There are no toilet facilities
Well-being	Relative poverty
	Debt makes more than 30 per cent of expenditures

All indicators needed to establish the MPI for a household are taken from the household budget and the workforce integrated study. The indicators are weighted, and then the deprivation scores are calculated for each household in the study. The households with a score of 2, which corresponds to the level of deprivation (poverty) for at least two of the eight indicators, are considered multidimensionally poor.

Table 2. Multidimensional Poverty calculated based on 2 Deprivations

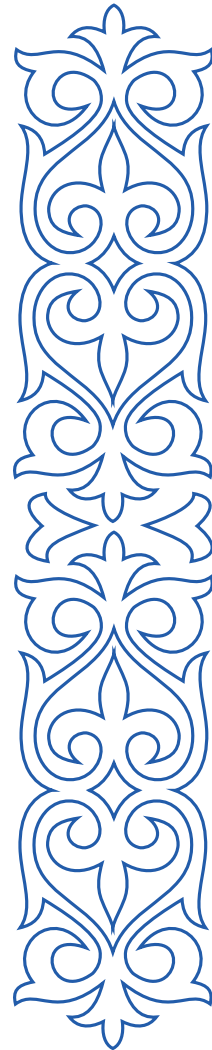
	2010	2011	2012	2013	2014
The number of multidimensional poor	976548	1054323	1062040	1208505	818979
The number of population	5477620	5551888	5663133	5773218	5895062
Poverty headcount	0,178	0,190	0,188	0,209	0,139
Deprivation share	0,271	0,275	0,270	0,276	0,268
MPI	0,048	0,052	0,051	0,058	0,037

Table 3. Multidimensional Poverty throughout the Territory (2 Deprivations)

	2010	2011	2012	2013	2014
Kyrgyz Republic	0,048	0,052	0,051	0,058	0,037
City	0,039	0,042	0,045	0,038	0,029
Village	0,054	0,058	0,054	0,068	0,042
Batken Oblast	0,087	0,086	0,075	0,108	0,069
City	0,052	0,043	0,037	0,054	0,035
Village	0,098	0,099	0,087	0,125	0,084

Jalal-Abad Oblast	0,041	0,044	0,069	0,051	0,035
City	0,033	0,049	0,086	0,047	0,038
Village	0,044	0,042	0,063	0,052	0,034
Issyk-Kul Oblast	0,036	0,030	0,032	0,052	0,020
City	0,035	0,027	0,034	0,025	0,016
Village	0,036	0,031	0,032	0,062	0,022
Naryn Oblast	0,112	0,140	0,100	0,114	0,091
City	0,132	0,135	0,132	0,119	0,102
Village	0,108	0,141	0,095	0,113	0,089
Osh Oblast	0,061	0,058	0,047	0,083	0,046
City	0,074	0,061	0,038	0,101	0,064
Village	0,056	0,057	0,050	0,081	0,044
Talas Oblast	0,035	0,059	0,025	0,015	0,006
City	0,015	0,025	0,013	0,002	0,002
Village	0,038	0,064	0,027	0,017	0,007
Chui Oblast	0,033	0,041	0,037	0,037	0,031
City	0,026	0,038	0,043	0,011	0,023
Village	0,034	0,042	0,036	0,043	0,033
Bishkek	0,022	0,029	0,036	0,026	0,016
Ош шаары	-	-	-	0,056	0,049

KEY SOCIO-ECONOMIC FIGURES OF THE KYRGYZ REPUBLIC



Annex 4. Key Socio-Economic Figures of the Kyrgyz Republic

Table 1. Key Figures for the Kyrgyz Republic

	1995	2000	2005	2006	2007	2008 ¹	2009	2010	2011	2012	2013	2014
Area, thousand square kilometers	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9
De-jure population density (people per 1 sq.m. as of the end of the year)	23	25	26	26	27	27	27	27	28	28	29	30
De-jure population, as of the end of the year, million people	4,6	4,9	5,2	5,2	5,3	5,3	5,4	5,5	5,6	5,7	5,8	5,9
Children and teenagers (0-15 years old) (in %)	38,0	36,7	33,3	32,9	32,7	32,5	32,3	32,3	32,4	32,6	32,8	33,1
Persons older than the working age (in %) ¹	9,2	8,8	8,1	8,1	8,1	8,1	8,2	6,6	6,6	6,7	6,8	6,9
Rural population (in %)	64,7	65,3	65,4	65,6	65,8	65,9	65,9	66,0	66,1	66,4	66,4	66,3
Urban population (in %)	35,3	34,7	34,6	34,4	34,2	34,1	34,1	34,0	33,9	33,6	33,6	33,7
Men (in %)	49,2	49,4	49,4	49,3	49,3	49,3	49,4	49,4	49,4	49,4	49,4	49,5
Women (in %)	50,8	50,6	50,6	50,7	50,7	50,7	50,6	50,6	50,6	50,6	50,6	50,5
Kyrgyz (in %)	60,3	65,7	68,4	68,9	69,2	71,0	71,3	71,7	72,2	72,4	72,6	72,8
Russian (in %)	15,7	11,7	9,5	9,1	8,7	7,8	7,5	7,2	6,9	6,6	6,4	6,2
Uzbek (in %)	14,2	13,9	14,3	14,4	14,5	14,3	14,4	14,4	14,3	14,4	14,5	14,5
Ukrainian (in %)	1,6	0,9	0,6	0,5	0,5	0,4	0,4	0,3	0,3	0,3	0,3	0,2
Tatar (in %)	1,2	0,9	0,7	0,7	0,7	0,6	0,6	0,6	0,5	0,5	0,5	0,5
Dungan (in %)	1,0	1,1	1,1	1,2	1,2	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Uyghur (in %)	0,9	1,0	1,0	1,0	1,0	0,9	0,9	0,9	0,9	0,9	0,9	0,9
Turk (in %)	0,6	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
Korean (in %)	0,4	0,4	0,4	0,4	0,4	0,3	0,3	0,3	0,3	0,3	0,3	0,3
German (in %)	0,5	0,4	0,3	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,1	0,1
Other nationalities (in %)	3,6	3,3	3,0	2,9	2,9	2,7	2,6	2,6	2,6	2,6	2,6	2,7
Infant mortality (per 1000 born) ²	28,1	22,6	29,7	29,2	30,6	27,1	25,0	22,8	21,1	20,0	19,9	20,2
Child mortality (per 1000 born) ²	41,3	33,2	35,1	35,3	35,3	31,5	29,3	26,5	24,5	23,4	23,3	23,1
Natural increase (thousand people)	80,4	62,7	72,9	82,2	85,1	89,6	99,6	109,9	113,7	118,7	120,7	126,2
Migration loss (thousand people)	-18,9	-22,6	-27,0	-31,0	-50,6	-37,8	-29,6	-50,6	-39,4	-7,5	-7,2	-7,7
Able-bodied population (as of the end of the year, million people) ³	2,4	2,7	3,0	3,1	3,1	3,2	3,2	3,3	3,4	3,4	3,5	3,5
Number of employed (million people) ⁴	1,6	1,8	2,1	2,1	2,2	2,2	2,2	2,2	2,3	2,3	2,3	2,3
Recorded unemployment rate as of the end of the year (in %)	2,9	3,0	3,0	3,2	3,0	2,8	2,5	2,6	2,5	2,4	2,3	2,4
Aggregate unemployment rate (average for a year, in %) ⁴	5,7	7,5	8,1	8,3	8,2	8,2	8,4	8,6	8,5	8,4	8,3	8,0

¹The figures of the ethnic composition are presented according to the results of the population census and the housing stock for 2009.

²Increase in infant and child mortality is related to the country's transition from 2004 to the live-birth criteria recommended by the WHO when the death records of the newborns with very low weight (from 500 to 1000 g) and additional vital signs have started in the agencies of the Civil Acts Registration Bureau.

³According to the explanation of the Kyrgyz Ministry of labor, employment and migration in 2011 the working age population from 2011 includes men aged 16 to 62 years and women aged 16 to 57 years (before 2011 the limits of the working age for men have been 16 to 59 years; for women 16 to 54 years). The population older than the working age from 2011 includes men aged 63 years and older; women aged 58 years and older (before 2011, accordingly, men – 60 years and older; women – 55 years and older).

⁴Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

Table 2. Demography

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Total fertility rate	3,1	2,4	2,5	2,7	2,7	2,8	2,9	3,1	3,1	3,2	3,1	3,2
2	Fertility rate with the time breakdown (in % from 1990)	86	67	69	75	75	78	81	84	85	87	86	88
3	Dependency measure (as of the end of the year, in %)	70	66	57	56	55	54	53	53	53	54	55	55
4	Population aged 65 years and older (as of the end of the year, in %)	5,5	5,4	5,4	5,3	5,1	4,8	4,5	4,4	4,3	4,3	4,3	4,3
Life expectancy at the age of 60 (number of years old):													
5	Men	14,4	15,6	15,0	14,9	14,9	15,2	15,3	15,4	15,3	15,5	15,4	15,2
6	Women	18,7	18,7	18,7	19,2	19,0	19,0	19,2	19,4	19,4	19,5	19,6	19,7
8	De-jure population (as of the end of the year, million people)	4,6	4,9	5,2	5,2	5,3	5,3	5,4	5,5	5,6	5,7	5,8	5,9
9	Γ Annual population growth (in %)	1,6	1,0	1,0	1,1	0,8	1,1	1,3	1,1	1,4	2,0	2,0	2,1

Table 3. Human Development Index (HDI)

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Life expectancy at birth (years old)	66,0	68,5	67,9	67,7	67,8	68,4	69,1	69,3	69,6	70,0	70,2	70,4
2	Adult literacy rate (in %)	97,3	98,7	98,7	98,7	98,7	98,7	99,2	99,2	99,2	99,2	99,2	99,2
3	Aggregate share of students in primary, secondary and higher educational institutions (in % of the population aged 7 to 24 years)	63	70	69	69	69	68	68	68	69	69	70	71
4	Real GDP per capita (PPP, USD)	1000	1646	2113	2219	2449	2681	2746	2734	2921	2921	3224	3322
5	Life expectancy index	0,708	0,746	0,737	0,734	0,735	0,745	0,755	0,758	0,763	0,769	0,772	0,775
6	Attained education index	0,783	0,833	0,827	0,823	0,826	0,819	0,820	0,820	0,828	0,830	0,836	0,838
7	Income index	0,348	0,423	0,461	0,468	0,483	0,497	0,500	0,500	0,510	0,510	0,525	0,529
8	Human development index	0,578	0,641	0,655	0,656	0,664	0,672	0,676	0,677	0,686	0,688	0,697	0,700

Table 4. Human Development Trends

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Life expectancy at birth (years old)	66,0	68,5	67,9	67,7	67,8	68,4	69,1	69,3	69,6	70,0	70,2	70,4
2	Entrance rate into higher educational institutions (HEI) for stationary training (in % of total entrance)	76	59	57	60	62	70	71	65	55	82	75	74
3	Real GDP per capita (PPP, USD)	1000	1646	2113	2219	2449	2681	2746	2734	2921	2921	3224	3322
4	Total education expenditures (% of GDP)	7,1	3,7	5,2	5,8	6,6	6,2	7,0	6,2	7,4	7,8	6,9	6,6
5	Total health care expenditures (% of GDP)	4,3	2,2	2,6	3,0	3,1	2,9	3,5	3,6	3,7	4,2	3,9	3,6

Table 5. Human Development

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Life expectancy at birth (years old)	66,0	68,5	67,9	67,7	67,8	68,4	69,1	69,3	69,6	70,0	70,2	70,4
2	Maternal mortality (per 100 000 live-born children)	44,3	45,5	60,1	55,5	51,9	55,0	63,5	51,3	54,8	49,1	36,0	50,1
3	Number of people (per 1 doctor)	312	343	384	395	405	404	413	410	417	423	426	435
4	Scientists and technicians (per 1000 people)	0,8	0,6	0,5	0,5	0,4	0,3	0,4	0,4	0,4	0,5	0,6	0,6
5	Number of students entered into HEI (in % of population aged 7 to 24 years)	63	70	69	69	69	68	68	68	69	69	70	71
6	HEI entrance overall index (total, in % of students entered out of population aged 17 years)	20	49	54	46	47	40	41	39	44	29	33	31
7	Women entered into higher educational institutions (in % of the entered students)	51	51	56	57	57	55	53	54	56	60	61	59
8	Real GDP per capita (PPP, USD)	1000	1646	2113	2219	2449	2681	2746	2734	2921	2921	3224	3322

Table 6. Difference between men and women (women-men, in %)

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Life expectancy	115	112	112	114	113	113	112	113	112	112	112	112
2	Population (as of the end of the year)	103	103	103	103	103	103	103	103	103	102	102	102
3	Aggregate rate of students in primary, secondary and higher educational institutions (in %)	104	101	105	106	106	105	103	103	103	104	105	105
4	Entrance into secondary educational institutions	102	97	102	103	99	97	99	97	98	99	97	92
5	Secondary education completed	108	106	104	99	101	100	98	97	98	97	97	98
6	Entrance into universities (or equivalent HEI) into the stationary department	162	127	124	136	141	76	119	125	138	161	130	150
7	HEI entrance to study natural and applied sciences	213	228	197	164	238	258	261	179	234	204	210	249
8	Manpower	96	83	75	74	73	75	73	72	72	71	68	71
9	Employment not in agricultural sector ¹	96	75	76	74	72	73	73	73	71	70	64	64
10	Unemployment	146	132	92	86	86	96	97	93	93	87	88	95
11	Salary	73	68	63	66	67	67	64	64	78	74	73	71

¹ Data source: 1995-2000 – a manpower account balance, 2005-2014- the data of the integrated sample survey of households' budgets and manpower.

Table 7. Women position

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Life expectancy at birth (years old)	70,4	72,4	71,9	72,1	72,2	72,6	73,2	73,5	73,7	74,1	74,3	74,5
2	Average age at the first marriage (years old)	21,4	22,1	23,2	23,4	23,4	23,4	23,4	23,5	23,4	23,5	23,4	23,4
3	Maternal mortality rate (per 100 000 live-born children)	44,3	45,5	60,1	55,5	51,9	55,0	63,5	51,3	54,8	49,1	36,0	50,1
4	Infant mortality rate (per 1000 born) ¹	28,1	22,6	29,7	29,2	30,6	27,1	25,0	22,8	21,1	20,0	19,9	20,2
5	Child mortality rate (per 1000 born) ¹	41,3	33,2	35,1	35,3	35,3	31,5	29,3	26,5	24,5	23,4	23,3	23,1
6	Entrance into secondary educational institutions (in %)	71	51	67	65	64	64	65	66	69	71	71	72
7	Graduates with secondary education completed (in % of women in a usual gradu-ating age)	65	44	61	57	58	59	55	59	60	58	58	60
8	HEI entrance for stationary training (in % to total entrance)	66	56	55	58	59	43	54	56	58	62	57	60
9	HEI entrance to study natural and applied sciences (% of women in HEI)	25	33	27	24	25	17	22	18	28	25	26	25
10	Womanpower (in % of total manpower) ²	49	45	43	42	42	43	42	42	42	41	40	41
11	Administrative and managerial personnel (% of women) ²	36	30	38	39	38	38	36	37	36	34	34	34
12	Parliament (% of seats occupied by women)	5	5	–	–	27	26	26	24	21	22	22	22

¹ Increase in infant and child mortality is related to the country's transition from 2004 to the live-birth criteria recommended by the WHO when the death records of the newborns with very low weight (from 500 to 1000 g) and additional vital signs have started in the agencies of the Civil Acts Registration Bureau.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

Table 8. Medicine and Health Care

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.	Years lost due to early death	21	19	20	20	20	19	20	20	20	19	20	20
2.	Death by widely spread diseases ¹ (in % of total number)	47	54	56	56	56	57	58	58	59	61	61	61
3.	Out of them death by malignant growth (in % of total deceased persons)	8	9	8	8	8	8	9	9	9	9	10	10
4.	AIDS morbidity rate (persons living with HIV per 100 000 people)	0,04	0,3	3,3	4,7	7,9	10,5	12,5	10,2	10,8	12,6	8,4	10,5
5.	Alcohol consumption (liters per an adult)	3,6	4,1	6,6	6,7	6,6	6,6	6,6	6,6	6,4	6,4	6,5	6,5
6.	Tobacco consumption (kg per an adult)	0,3	0,5	0,7	0,7	0,7	0,7	0,7	0,7	0,6	0,7	0,7	0,7
7.	Number of persons per 1 doctor	312	343	384	395	405	404	413	410	417	423	426	435
8.	Medical services paid by the social insurance service (in %) ²	–	–	10,8	9,7	8,4	9,9	8,5	9,8	9,0	8,6	9,3	11,0
9.	Government expenditures on health care (in % of total government ex-penditures)	13,6	11,5	11,3	12,1	11,2	10,3	10,7	10,0	10,3	10,9	11,8	10,7
10.	Total health care expenditures (in % of GDP)	4,3	2,2	2,6	3,0	3,1	2,9	3,5	3,6	3,7	4,2	3,9	3,6

¹ Circulatory diseases and neoplasms.

² Medical services financing from the Compulsory medical insurance fund, in % to total health care expenditures

Table 9. Education

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Entrance rate into educational institutions (in % of population aged 7 to 24 years)	63	70	69	69	69	68	68	68	69	69	70	71
2	Secondary stationary education completed (in %)	87	91	96	95	96	94	93	93	92	91	92	91
3	Secondary vocational education completed (% of total secondary education in the higher education)	38	24	22	21	12	18	20	18	26	18	20	17
4	Number of higher educational institutions	32	45	51	47	49	50	54	56	54	54	55	53
5	HEI entrance for stationary training (in %)	75	59	57	60	64	70	71	65	55	82	75	73
6	HEI entrance with education in natural and applied sciences (in % of total)	7	8	4	4	4	3	2	2	3	5	5	7
7	Higher education expenditures (% of government expenditures on education)	8,2	14,7	18,9	18,0	15,9	16,4	15,6	15,5	12,6	12,0	12,8	13,2
8	Total education expenditures (in % of GDP)	7,1	3,7	5,2	5,8	6,6	6,2	7,0	6,2	7,4	7,8	6,9	6,6
9	Government expenditures on education (in % of GDP)	6,6	3,5	4,7	5,5	6,5	5,9	6,2	5,8	6,8	7,4	6,8	6,5

Table 10. Human capital assets formation

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Aggregate share of students in primary, secondary and higher educational institutions (% of the population aged 7 to 24 years)													
1	Both genders	63	70	69	69	69	68	68	68	69	69	70	71
2	Men	62	70	68	67	67	66	67	67	68	68	69	69
3	Women	64	71	71	70	71	69	69	69	70	71	72	72
4	Number of non-governmental organizations (without political ones)	885	3759	10515	11892	13394	13491	14211	14998	15676	16240	16884	16970
5	Scientists and technicians (per 1000 people)	0,8	0,6	0,5	0,5	0,4	0,3	0,4	0,4	0,4	0,5	0,6	0,6
6	Research and development expenditures ¹ (in % of GDP)	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,2	0,2	0,1	0,2
7	Graduates from the secondary educational institutions (in % of the population in the graduating age)	45	43	60	58	58	59	56	60	60	59	59	61
8	HEI graduates (% of the population in the graduating age)	10	21	35	33	28	33	38	33	36	35	35	34
9	Graduates of natural and technical and mathematical fields (% of total graduates), both genders	28	20	18	21	20	21	20	20	19	19	21	18
10	Men	13	11	12	14	13	13	14	13	13	13	14	12
11	Women	12	9	7	7	7	8	6	7	6	6	7	6
12	Number of persons with higher education (in % of the population aged 15 years and older) ²	10,8	10,5	10,5	10,5	10,5	10,5	12,4	12,4	12,4	12,4	12,4	12,4

¹ Government expenditures on research and development.² The data of the national population census for 1999 and 2009 according to the persons aged 15 years and older.

Table 11. Employment

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Manpower (in % of total population) ¹	39	39	44	44	45	45	45	45	45	45	43	43
Workers involved into:													
2	Agriculture (in %)	47	53	38	36	35	35	32	31	31	30	32	32
3	Industry (in %)	17	10	18	19	20	20	21	21	21	22	20	20
4	Services (in %)	36	37	44	45	45	45	46	48	48	48	48	48
5	Future replaceable manpower ratio (as of the end of the year)	191	179	149	147	145	144	142	144	146	148	150	152
6	Number of working hours per a week (per a person, in manufacture)	36	35	33,3	32,9	34,1	33,6	34,6	34,3	34,5	34,5	34,6	34,9

¹ Data source: 1995-2000 – a manpower account balance, 2005-2014 - the data of the integrated sample survey of households' budgets and manpower.

Table 12. Unemployment

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of unemployed recorded (thousand people)													
1	Both genders	50,4	58,3	68,0	73,4	71,3	67,2	61,4	63,4	61,1	60,4	58,4	58,2
2	Men	20,5	27,1	32,2	35,5	35,5	33,5	30,1	30,0	29,3	29,6	28,3	27,9
3	Women	29,9	31,2	35,8	37,9	35,8	33,7	31,3	33,4	31,7	30,7	30,1	30,3
4	Youth ¹	20,3	23,2	25,2	28,3	27,9	27,9	26,3	25,8	24,9	26,4	24,8	25,3
5	Boys	8,9	10,6	12,6	13,7	13,9	14,3	13,4	12,8	12,5	13,3	12,1	13,2
6	Girls	11,4	12,6	12,5	14,6	14,0	13,6	12,9	13,0	12,4	13,1	12,7	12,1
7	Registered unemployment rate (total in %)	2,9	3,0	3,0	3,2	3,0	2,8	2,6	2,6	2,5	2,4	2,3	2,4
8	Total unemployed including ones looking for a job themselves (thousand people)	100,0	144,3	183,5	188,9	191,1	195,6	203,7	212,3	212,4	210,4	205,7	201,5
Registered unemployment duration (in %):													
9	Up to 6 months	74	40	37	45	43	31,7	49,9	36,8	32,3	34,4	35,1	38,0
10	From 6 to 12 months	17	30	26	29	24	24,7	19,8	22,7	23,1	28,2	27,2	24,4
11	Over 12 months	9	30	37	26	33	43,6	30,3	41,6	44,7	37,4	37,7	37,6
Ratio of unemployed (% of total unemployed) ² :													
12	Men	41	46	52	54	54	51	51	52	52	53	53	51
13	Women	59	54	48	46	46	49	49	48	48	47	47	49

¹ Before 2009 the persons aged 16 to 29 years have been accounted, from 2010 – 16-28 years.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

Table 13. National income accounts

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Agricultural production (in % of GDP)	40,6	34,2	28,5	28,7	26,9	23,5	18,8	17,5	16,6	16,6	14,6	14,7
2	Industry (in % of GDP)	12,0	25,0	17,3	14,8	13,1	15,1	16,9	20,7	22,5	15,8	18,6	16,5
3	Services (in % of GDP)	33,6	29,6	40,7	41,3	42,9	43,0	46,6	46,1	45,0	48,0	46,6	47,5
4	Consumption:	94,5	85,7	102,1	113,1	104,6	110,1	96,7	102,7	101,6	115,9	115,6	113,5
5	private (in % of GDP)	75,0	65,7	84,5	95,2	87,5	92,6	78,3	84,6	83,4	95,8	97,2	96,0
6	government (in % of GDP)	19,5	20,1	17,6	17,9	17,1	17,5	18,4	18,1	18,2	20,1	18,4	17,5
7	Total domestic investments (in % of GDP)	18,4	20,0	16,4	24,2	26,6	29,0	27,3	27,4	25,5	35,0	33,9	36,8
8	Total domestic savings (in % of GDP)	9,3	14,4	8,2	10,8	20,7	16,7	25,1	20,8	19,8	12,8	9,3	...
9	Tax revenues (GB) (in % of GDP)	15,1	11,7	16,2	17,6	18,7	19,1	17,9	17,9	18,5	20,6	20,5	20,8
10	Central government expenditures (in % of GDP) (GB)	28,6	17,3	20,0	22,2	25,3	24,0	29,1	31,2	32,0	34,5	29,3	30,3
11	Goods and services export (in % of GDP)	29,5	41,8	38,3	41,7	52,9	53,5	54,7	51,6	54,5	44,4	42,3	37,4
12	Goods and services import (in % of GDP)	42,4	47,6	56,8	79,0	84,1	92,6	78,7	81,7	81,6	95,3	91,8	87,7

Table 14. Economy development trends

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Consumer price index (December, in % to December of the previous year)	132,1	109,6	104,9	105,1	120,1	120,0	100,0	119,2	105,7	107,5	104,0	110,5
2	Tax revenues (GB) (in % of GDP)	15,1	11,7	16,2	17,6	18,7	19,1	17,9	17,9	18,5	20,6	20,5	20,6
3	Direct taxes (in % of all taxes)	50,0	38,4	45,9	44,3	42,4	45,3	47,2	49,2	49,7	47,5	44,2	44,0
4	Total budget surplus/deficit (in % of GDP)	-11,5	-2,0	0,2	-0,2	0,1	0,8	-1,5	-4,9	-4,8	-6,5	-0,7	-0,5
5	Money supply (M2) ¹ (KGS million as of the end of the year)	2754,0	7367,5	21295,9	32280,9	43018,0	48453,2	57126,4	69207,7	79527,8	98482,9	120903,4	124544,4
6	National bank's discount rate that characterizes the money value floor ²	46,0	38,3	4,1	3,2	8,8	15,2	0,9	5,5	13,61	2,64	4,17	10,50
7	Trade balance (USD million)	-113,4	-47,1	-514,7	-1040,0	-1467,4	-2216,8	-1367,2	-1466,9	-2019,0	-3 648,7	-3 980,2	-3 851,0
8	USD to KGS nominal rate (average for the period)	10,82	47,72	41,01	40,16	37,31	36,57	42,89	45,96	46,14	47,00	48,44	53,65
9	Government securities issuing volume (KGS million) ³	185,2	563,2	1395,1	1274,7	1647,6	2960,3	5542,6	4441,0	6204,3	7390,9	8108,8	8213,7

¹ Money supply in broad sense.² National bank's discount rate that characterizes the money value floor. ³ From 1997 also including the external trade volumes of the individuals.³ This item shows the sales volume of the government securities (T-bills). From 2010 also including T-bills and short-term state treasury bills.

Table 15. Wealth, poverty and social investments

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Real GDP per capita (PPP, USD)	1000	1646	2113	2219	2449	2681	2746	2734	2921	2921	3224	3322
2	Industrial GDP percent (in %)	12	25,0	17,3	14,8	13,1	15,1	16,9	20,7	20,7	22,5	15,8	18,6
3	Largest income 20% and lowest income 20% ratio	7,1	10,9	9,9	8,9	9,2	6,2	6,9	6,9	7,3	9,1	11,7	9,7
4	Total education expenditures(in % of GDP)	7,1	3,7	5,2	5,8	6,6	6,2	7,0	6,2	7,4	7,8	6,9	6,6
5	Total health care expenditures (in % of GDP)	4,3	2,2	2,6	3,0	3,1	2,9	3,5	3,6	3,7	4,2	3,9	3,6
6	Per capita income (KGS per capita)	150,6	495,5	955,9	1111,5	1417,3	2028,6	2311,9	2494,4	2936,4	3215,8	3336,3	3957,5
7	Income of 20% poorest households (KGS per capita in the group)	58,5	162,6	310,4	359,4	515,8	770,2	899,7	957,0	1153,0	1260,5	1178,4	1474,8
8	Food expenditures (in % of total household expenditures)	48,0	44,4	47,5	43,7	45,6	48,5	48,4	45,1	47,0	49,1	47,0	44,9

Table 16. Overcoming internal and external isolation

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Visiting cinemas per year (per 1 person)	0,1	0,1	0,1	0,04	0,04	0,03	0,04	0,07	0,08	0,09	0,14	0,32
2	Visiting museums per year (per 1 person)	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
3	Registered library users (per 1 person)	0,4	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
4	Published books (number of publications per 100 000 people)	7	9	14	11	13	17	16	15	32	39	43	23
5	Sending letters (per capita)	2	1	1	1	1	1	0,4	0,3	0,3	0,3	0,3	0,3
6	Telephones (per 100 people) ¹	8	8	19	32	50	74	88	105	121	108	125	136
7	Cars (per 100 people)	4	4	4	4	4	6	6	6	6	12	13	14

¹ Starting from 2005 mobile phones have been included.

Table 17. Anthropric disasters

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Poverty incidence index (in % of the population) ¹	57,3	62,6	43,1	39,9	35,0	31,7	31,7	33,7	36,8	38,0	37,0	30,6
2	Registered unemployment rate (% total)	2,9	3,0	3,0	3,2	3,0	2,8	2,5	2,6	2,5	2,4	2,3	2,4
3	including among youth of 16-29 years old (in % to the economically active population of this age) ²	3,3	3,2	3,1	3,4	3,2	3,2	2,9	2,8	2,7	2,9	2,7	2,8
4	Women's salary (in % of men's salary)	73	68	63	66	67	67	64	64	78	74	73	71
5	Consumer price index (December, in % to December of the previous year)	132,1	109,6	104,9	105,1	120,1	120,0	100,0	119,2	105,7	107,5	104,0	110,5
6	Years lost due to early death	21	19	20	20	20	19	20	20	20	19	20	20
7	Pedestrian accidents (per 100 000 people)	78	70	49	73	86	67	79	77	100	102	87	113
8	Registered sexual assaults (per 100 000 women aged 15 to 59 years)	26	23	19	17	16	18	18	17	19	18	19	18
9	Sulphurous anhydride and nitrogen oxide emissions (kg, per capita) ³	7,3	4,0	2,1	2,1	2,0	2,4	2,2	1,8	2,3	1,6	2,8	3,9
10	BCarbon oxide emission (kg, per capita) ³	1,6	0,6	0,7	0,9	0,9	0,6	0,6	0,7	1,8	1,8	1,8	2,1

¹ The results of the poverty multipurpose survey carried out by the World bank's project, for 1995 – the survey data, carried out in spring of 1996. The data for 2000 is calculated according to the survey results of 3 thousand household budgets.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 - the data of the integrated sample survey of households' budgets and manpower.

³ Accounted only from the stationary sources.

Table 18. Crime rate

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Convicted (per 100 000 people of the population aged 14 years and older)	580	617	371	368	340	284	258	218	238	206	185	178
2	Juvenile convicts (in % of total convicts)	7	6	7	7	7	6	4	4	5	4	3	3
3	Premeditated murder (per 100 000 people)	12	8	7	6	6	5	6	6	6	5	4	4
4	Suicide (per 100 000 people) ¹												
5	Both gender	13	10	9	9	9	9	9	9	9	9	8	8
6	Men (per 100 000 people)	21	17	15	14	14	14	14	15	13	15	12	12
7	Women (per 100 000 people)	6	4	3	4	4	3	4	4	4	4	3	4
8	Registered sexual assaults (per 100 000 women aged 15 to 59 years)	26	23	19	17	16	18	18	17	19	18	19	18
9	Total crimes	41008	38620	33277	31392	29151	29519	29715	35528	30520	28847	27214	27070
10	Crimes related to drugs	2623	3539	2565	2437	1996	1905	1887	1543	1924	1933	1913	1955
11	Economic crimes	2647	3155	2971	3119	2916	2139	2648	2349	1885	1942	2098	2143
12	Conviction rate	61,1	77,2	63,7	63,3	66,5	64,9	64,8	49,2	60,6	62,2	63,7	66,1
13	Emigrants number (people)	37302	27887	30741	34423	54608	41287	33380	54531	45740	13019	11552	11685
14	Divorces (in % of marriages)	22	22	16	16	17	17	16	16	15	16	17	17
15	Children of unwed parents (in % of the live-born number)	19	32	33	32	32	30	31	31	30	28	26	26

¹ Change of data is related to change of the calculation methods.

Table 19. Natural resources balance

Nº		1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Country's total area (thousand square kilometers)	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9	199,9
2	De-jure population density (people per 1 sq.km as of the end of the year)	23	25	26	26	27	27	27	27	28	28	29	30
3	Croplands and constantly sown lands (in % of total area)	7	7	7	6	6	6	6	6	7	6	6	6
4	Hayfields (in % of total area)	1	1	1	1	1	1	1	1	1	1	1	1
5	Forests and forestations (in % of total area)	7	8	8	8	8	8	8	8	8	8,1	8,2	8,2
6	Irrigated lands (in % of all croplands)	64	66	66	66	66	66	68	68	68	68	68	68
7	Water withdrawal from natural bodies of water, (million m³)	9308	8025	7888	8007	8530	8469	7600	7562	8634	9544	8327	7658
8	Per capita (cubic meter)	2023,5	1637,8	1516,9	1539,8	1609,4	1597,9	1407,4	1374,9	1541,8	1674,4	1435,7	1298,0
9	Number of reservations and natural parks	7	12	16	16	17	17	17	19	19	19	19	19

Table 20. Power economy productive efficiency¹

Nº		2006²	2007	2008	2009	2010	2011	2012	2013	2014
	Energy intensity, Gross domestic product:									
1	here for KGS 1 million of GDP	91,9	78,2	54,3	48,7	45,5	42,0	35,3	31,4	-
2	Agriculture, forestry and fishery, here for KGS 1 million of the sector's overall production	3,9	4,4	3,2	3,1	2,1	1,5	1,2	1,4	-
3	Mining operations, here for KGS 1 million of the sector's overall production	85,4	55,0	64,2	99,5	72,9	53,2	44,5	56,5	-
4	Supply of electricity, gas, vapor and conditioned air, here for KGS 1 million of the sector's overall production	690,9	609,0	456,1	393,3	319,7	338,2	264,3	282,6	-
	Electric intensity, Gross domestic product:									
5	Thousand kWh for KGS 1 million of GDP	106,0	87,7	59,8	49,9	47,7	43,3	43,7	38,5	-
6	Agriculture, forestry and fishery, here for KGS 1 million of the sector's overall production	29,4	20,5	15,0	15,6	14,9	14,3	14,7	14,9	-
7	Industry, thousand kWh for KGS 1 million of the sector's overall production	74,2	71,8	46,0	40,1	33,1	30,0	41,2	35,0	
8	Electricity generation at small HPP, million kWh				168,8	180,5	174,7	155,2	163,5	

¹ The figures have been changed in accordance with the change of the calculation methods.

² for 2006-2009, accordingly, agriculture, hunting and forestry, mining, production and distribution of electric energy, gas and water.

Table 21. Pollution and environmental protection

№	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Sulphurous anhydride and nitrogen oxide emissions (thousand metric tons)	33	24	11	11	10	12,8	11,8	10,1	12,4	8,9	22,6
2	Sulphurous anhydride and nitrogen oxide emissions (kg per capita)	7,3	4,0	2,1	2,1	2,0	2,4	2,2	1,8	2,1	1,6	3,8
3	Toxic production wastes (in metric tons per sq.km, generated for a year) ¹	2,4	31,51	27,2	26	26,2	27,9	28,4	28,7	29,4	23,9	50,2
4	Municipal waste (kg per capita)	201	-	107,2	118,4	125,9	189,6	283,3	238,3	132,3	172,0	170,3

¹ Significant increase in the figures has occurred due to the start of the industrial activity at "Kumtor"».

Table 22. Urbanization growth

№	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Population of the largest cities – Bishkek and Osh (in % of the urban de-jure population of the country as of the end of the year)	55	57	57	57	58	58	58	58	59	59	59
2	Largest cities with the largest de-jure population density (Bishkek, number of people/1 sq. km as of the end of the year)	5501	6061	6338	6404	6473	6555	6665	6770	6885	7044	7210
3	Urban population (in % of total population)	35,3	34,7	34,5	34,4	34,2	34,1	34,1	34,0	33,9	33,6	33,7
4	Urban population annual growth (in %)	0,7	1,0	0,5	0,4	0,3	0,7	1,3	0,8	1,2	2,3	2,2

¹ Lower urban population growth in 2012 compared to 2011 is related to transformation of 13 urban settlements into rural settlements.

Kyrgyz Republic

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Households	23,6	7,4	6,2	4,1	3,7	2,2	3,2	2,8	2,7	1,6	0,8
Population	32,9	11,1	9,1	6,6	6,1	3,1	5,3	4,5	4,4	2,8	1,2
Share of population having no access to safe drinking water (in %) ⁴	14,0	15,6	10,2	7,0	9,6	9,6	8,5	7,6	6,8	10,4	11,1
Share of population having no access to health care (in %) ⁴	11,4	6,5	5,6	9,3	2,7	2,8	1,9	2,2	3,4	1,4	1,2
Share of underfed children aged 1 to 6 years (in %) ⁴	6,6	5,6	6,1	5,2	6,5	4,6	7,4	6,9	7,2	8,7	7,4
Share of children not going to school (in %) ⁵	0,3	0,1	0,1	0,1	0,2	0,3	0,3	0,3	0,3	0,3	0,2
DEVELOPMENT INDICES											
HDI ⁶	0,641	0,655	0,656	0,664	0,672	0,676	0,677	0,686	0,688	0,697	0,700
PPI-1	8,4	7,9	7,1	6,9	6,4	6,1	6,1				
GRDI ⁶	0,629	0,638	0,640	0,649	0,657	0,661	0,661	0,674	0,675	0,683	0,687
WEI (women empowerment index)	0,476	0,524	0,528	0,526	0,532	0,527	0,528	0,528	0,491	0,495	0,494

¹ In 2002 Sary-Bee settlement kenesh was founded in Mailuu-Suu city, Jalal-Abad oblast consisting of 3 settlements: Sary-Bee, Kogoi and Kara-Jygach.

² Before 2009 minimum consumer budget.

³ Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

⁴ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁵ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁶ The calculation is made according to the geometric average instead of arithmetic average.

⁷ Taking into account Batken city founded in 2000 and Isfana city founded in 2001 in Batken oblast.

⁸ Taking into account Nookat, Kochkor-Ata cities founded in 2003 and Kerben city founded in 2004 in Jalal-Abad oblast.

⁹ Reduction in urban settlements occurred due to formation of Kochkor-Ata city, Jalal-Abad oblast in 2003 based on the urban settlement of the same name.

¹⁰ In 2012 6 cities of regional subordination were created based on 6 urban settlements of the same name: in Batken oblast – Aidarken and Kadamjai urban settlements, in Jalal-Abad oblast – Toktogul urban settlement, in Chui oblast- Kemin, Orlovka and Kaindy urban settlements.

¹¹ In 2012 reduction in urban settlements occurred due to creation of 6 cities of regional subordination based on the urban settlements of the same name (please see note 10 for details) as well as due to trans-formation of 13 urban settlements into rural settlements: in Issyk-Kul oblast – Ak-Bulak, Kadji-Sai, and Jyrgalan urban settlements; in Batken oblast – Sovetskii and Chauvai urban settlements; in Jalal-Abad oblast – Terek-Sai and Sumsar urban settlements; in Osh oblast – Naiman and Sary-Tash urban settlements; in Naryn oblast – Dostuk and Min-Kush urban settlements; in Talas oblast – Maimak urban settlement; in Chui oblast – Ak-Tyuz urban settlement.

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	-	-	-	-	-	-	-	-	-	-	-
Cities	1	1	1	1	1	1	1	1	1	1	1
Urban settlements	1	1	1	1	1	1	1	1	1	1	1
Settlements	-	-	-	-	-	-	-	-	-	-	-
Ayıl aimak	-	-	-	-	-	-	-	-	-	-	-
De-jure population size (as of the end of the year, thousand people)	769,8	804,9	813,3	822,1	832,5	846,5	859,8	874,4	894,6	915,7	937,4
ECONOMY STRUCTURE (in % to GDP)											
Agriculture	1,3	0,0	0,2	0,9	0,4	0,3	0,1	0,1	0,1	0,1	0,2
Industry	7,9	10,5	12,1	9,3	9,2	9,9	10,0	8,4	7,0	7,7	6,0
Service area	63,7	62,9	60,2	63,8	62,6	65,4	68,3	63,7	63,7	60,7	58,9
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1286,6	2017,8	2523,3	2940,9	3717,5	3377,8 ¹⁾	3625,91	4466,8	4406,2	4691,0	5044,0
PRODUCTION PER CAPITA											
Gross domestic product (GDP)											
-KGS (at current market prices)	16176,8	40293,4	45330,0	59620,7	79710,1	84597,0	90201,0	115159,4	131708,8	146766,7	159852,1
-USD (as per PPP)	2245	4942	4930	5695	6172	6259	6075	6382	6819	7550	7569
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	64,6	64,2	64,4	64,6	66,3	66,2	66,8	67,0	67,4	67,9	68,3
Women	74,4	73,7	74,1	74,2	75,3	75,7	76,0	76,2	76,6	77,1	77,4
Share in economically active population ²											
Men	55,5	55,8	56,4	56,3	54,2	52,1	52,4	52,3	52,8	54,7	53,3
Women	44,5	44,2	43,6	43,7	45,8	47,9	47,6	47,7	47,2	45,3	46,7
Salary ratio (women/men, in %)	68,5	64,2	73,2	72,2	75,8	71,2	73,4	76,5	76,5	74,8	74,9
Share of poor population (including extremely poor, in %) ³											
Households	28,3	7,5	4,5	3,0	12,0	11,4	5,5	12,1	14,2	12,1	11,6
Population	40,6	10,8	5,5	5,0	15,2	13,2	7,9	18,4	21,4	20,4	17,6
Share of extremely poor population (in %) ³											
Households	10,5	0,4	0,3	0,3	1,5	2,8	0,5	0,8	0,7	0,5	0,0
Population	17,1	0,4	0,4	0,6	2,1	3,3	0,5	1,0	1,2	1,0	0,0

Bishkek city

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ³	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,2
Share of population having no access to health care (in %) ³	16,7	6,1	7,3	5,8	5,4	0,4	0,9	0,9	1,9	0,8	1,2
Share of underfed children aged 1 to 6 years (in %) ³	12,7	5,0	5,5	3,1	4,9	5,0	1,1	2,2	6,5	6,1	3,1
Share of children not going to school (in %) ⁴	0,1	0,03	0,03	0,02	0,01	0,02	0,03	0,02	0,02	0,04	0,04
DEVELOPMENT INDICES											
HDI ⁵	0,676	0,744	0,753	0,762	0,774	0,782	0,789	0,794	0,803	0,821	0,825
PPI-1	7,5	5,3	5,3	5,2	4,7	4,6	4,4				
GRDI ⁵	0,661	0,727	0,736	0,747	0,759	0,770	0,777	0,794	0,792	0,809	0,813
WEI (women empowerment index)	0,453	0,522	0,523	0,528	0,529	0,525	0,529	0,532	0,608	0,610	0,615

¹ Before 2009 minimum consumer budget.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

³ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁴ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁵ The calculation is made according to the geometric average instead of arithmetic average.

Note. The data for some indicators for the previous years was updated.

Chui oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	8	8	8	8	8	8	8	8	8	8	8
Cities	4	4	4	4	4	4	4	4	7 ⁶	7	7
Urban settlements	5	5	5	5	5	5	5	5	1 ⁷	1	1
Avil aimak	104	104	104	104	104	104	104	104	105	105	105
De-jure population size (as of the end of the year, thousand people)	773,4	779,7	787,9	795,0	801,5	808,2	814,9	822,6	838,4	853,7	870,3
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	47,7	47,5	44,0	41,6	40,2	36,9	37,3	36,4	35,0	28,6	25,0
Industry	16,4	12,9	14,0	16,0	19,2	17,2	13,8	23,6	17,3	16,2	17,0
Service area	25,4	33,3	34,2	32,3	30,3	35,7	35,7	29,4	33,9	37,2	39,3
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1165,2	1614,0	2229,9	2604,8	3496,1	3068,6 ¹⁾	3493,3	4288,6	4213,8	4401,9	4707,0
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS (at current market prices)	16382,0	22375,5	25659,4	30235,3	37060,9	39851,5	37331,1	52401,9	51529,9	58018,2	69374,9
-USD (as per PPP)	2059	2195	2466	2558	2699	2679	2422	2788	2551	2801	3065
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	62,8	61,5	60,6	60,3	61,3	62,7	62,9	63,3	63,6	64,0	64,3
Women	72,7	70,6	70,7	70,5	71,1	72,1	72,4	72,3	72,6	73,0	73,3
Share in economically active population ²											
Men	54,8	57,1	58,0	57,4	57,5	55,9	56,8	55,6	55,5	59,8	58,8
Women	45,2	42,9	42,0	42,6	42,5	44,1	43,2	44,4	44,5	40,2	41,2
Salary ratio (women/men, in %)	60,2	58,7	63,5	65,7	66,6	64,8	63,7	82,0	69,8	72,9	70,0
Share of poor population (including extremely poor, in %) ³											
Households	26,8	16,9	15,1	9,8	11,9	16,1	16,7	20,6	12,9	16,7	16,0
Population	34,6	22,0	20,1	15,0	15,8	21,2	21,9	28,6	16,6	23,6	21,6
Share of extremely poor population (in %) ³											
Households	8,7	3,7	2,6	0,9	1,4	1,4	1,7	3,3	2,6	1,1	2,1
Population	14,0	5,3	3,8	1,4	2,1	2,4	3,5	4,9	3,9	2,1	3,2
Share of population having no access to safe drinking water (in %) ³	0,0	3,9	0,7	0,4	1,4	1,1	1,0	0,4	0,2	0,0	0,0
Share of population having no access to health care (in %) ³	27,1	17,4	12,1	12,0	4,4	3,5	5,4	5,1	4,1	2,7	1,1

Chui oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of underfed children aged 1 to 6 years (in %) ³	9,6	11,4	9,9	9,1	10,5	3,9	9,4	14,8	4,3	11,1	9,4
Share of children not going to school (in %) ⁴	0,4	0,2	0,2	0,2	0,2	0,4	0,4	0,5	0,3	0,2	0,2
DEVELOPMENT INDICES											
HDI ⁵	0,638	0,631	0,635	0,636	0,643	0,650	0,646	0,658	0,656	0,669	0,681
PPI-1	9,4	9,1	8,4	10,4	7,5	6,2	6,8				
GRDI ⁵	0,623	0,612	0,618	0,620	0,628	0,635	0,630	0,649	0,644	0,654	0,666
WEI (women empowerment index)	0,567	0,589	0,587	0,578	0,590	0,578	0,581	0,592	0,517	0,531	0,531

¹ Before 2009 minimum consumer budget.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

³ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁴ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁵ The calculation is made according to the geometric average instead of arithmetic average.

⁶ In 2012 3 cities of regional subordination were created based on 3 urban settlements of the same name: Kemin, Orlovka and Kaindy urban settlements.

⁷ In 2012 reduction in urban settlements occurred due to creation of 3 cities of regional subordination based on the urban settlements of the same name (please see note 6 for details) as well as due to transformation of Ak-Tyuz urban settlement into a rural settlement.

Note. The data for some indicators for the previous years was updated.

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	5	5	5	5	5	5	5	5	5	5	5
Cities	3	3	3	3	3	3	3	3	3	3	3
Urban settlements	5	5	5	5	5	5	5	5	2 ⁶	2	2
Settlements	-	-	-	-	-	-	-	-	-	-	-
Ayıl aimak	58	58	58	58	58	58	58	58	61	61	61
De-jure population size (as of the end of the year, thousand people)	418,3	430,4	433,1	435,0	437,7	441,3	444,5	448,0	453,4	458,5	463,9
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	29,8	28,0	40,8	35,0	20,8	19,8	8,1	7,2	10,7	6,9	9,3
Industry	56,0	50,2	32,0	31,0	51,2	54,1	71,2	72,0	50,4	65,4	61,9
Service area	11,9	17,7	22,0	19,1	19,7	19,3	14,9	17,3	25,8	18,7	20,4
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1145,7	1658,1	2241,6	2598,3	3461,7	3150,1 ¹⁾	3323,9	4127,0	4050,7	4156,3	4520,5
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS (at current market prices)	25793,3	31341,0	28651,3	36478,7	50152,9	64689,8	82546,3	99749,9	82392,8	114538,1	115984,6
-USD (as per PPP)	3188	3159	2768	3078	3616	4463	5096	5107	3921	5221	4922
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	64,3	60,9	59,4	59,5	61,0	62,0	62,2	62,6	63,0	63,3	63,6
Women	72,7	69,7	70,2	70,4	71,3	72,0	72,3	72,5	72,8	73,1	73,4
Share in economically active population ²											
Men	56,7	57,6	56,5	58,8	58,9	59,1	58,4	59,5	60,1	63,1	62,2
Women	43,3	42,4	43,5	41,2	41,1	40,9	41,6	40,5	39,9	36,9	37,8
Salary ratio (women/men, in %)	53,2	64,8	62,7	70,5	71,9	62,9	60,2	88,5	89,3	81,7	75,5
Share of poor population (including extremely poor, in %) ³											
Households	58,9	38,5	34,4	31,1	42,4	38,0	28,1	20,9	19,9	28,2	17,5
Population	70,9	51,5	43,9	38,6	52,2	46,1	38,0	29,5	28,1	39,5	26,0
Share of extremely poor population (in %) ³											
Households	31,8	8,9	6,2	5,4	11,8	5,0	2,3	0,8	0,1	1,2	0,0
Population	45,4	14,2	10,6	8,1	16,9	6,6	2,5	1,5	0,1	1,9	0,0

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ³	0,0	4,1	4,5	4,2	0,7	0,7	1,2	1,0	1,0	6,3	3,2
Share of population having no access to health care (in %) ³	12,5	6,4	5,2	6,8	0,4	0,4	1,4	1,9	6,2	0,9	1,2
Share of underfed children aged 1 to 6 years (in %) ³	4,4	5,0	8,1	7,1	8,5	4,0	9,1	6,8	6,2	14,5	10,1
Share of children not going to school (in %) ⁴	0,5	0,1	0,1	0,3	0,1	0,1	0,2	0,2	0,2	0,2	0,4
DEVELOPMENT INDICES											
HDI ⁵	0,686	0,669	0,650	0,662	0,677	0,691	0,700	0,703	0,686	0,706	0,701
PPI-1	6,5	7,5	8,1	7,8	7,5	6,8	7,1				
GRDI ⁵	0,668	0,650	0,635	0,644	0,661	0,673	0,683	0,692	0,676	0,691	0,686
WEI (women empowerment index)	0,449	0,559	0,554	0,550	0,548	0,553	0,553	0,555	0,476	0,505	0,492

¹ Before 2009 minimum consumer budget.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

³ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁴ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁵ The calculation is made according to the geometric average instead of arithmetic average.

⁶ In 2012 reduction in urban settlements occurred due to transformation of 3 urban settlements into rural settlements: Ak-Bulak, Kadji-Sai and Jyrgalan urban settlements.
Note. The data for some indicators for the previous years was updated

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	3	3	3	3	3	3	3	3	3	3	3
Cities	4 ¹	4	4	4	4	4	4	4	6 ⁷	6	6
Urban settlements	5	5	5	5	5	5	5	5	1 ⁸	1	1
Avyl aimak	28	30	30	30	29	29	29	29	31	31	31
De-jure population size (as of the end of the year, thousand people)	392,3	415,4	420,0	422,4	427,1	433,8	441,1	448,9	458,9	469,7	480,7
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	50,6	46,9	44,1	49,3	32,8	34,2	44,6	38,3	35,8	28,5	31,4
Industry	6,8	7,6	7,4	7,6	6,4	7,1	8,7	11,8	15,3	19,1	15,3
Service area	36,9	41,6	44,3	38,6	41,5	45,7	40,3	39,5	39,9	39,2	42,8
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	-	1339,7	1883,0	2205,0	2953,8	2751,0 ³	3046,6	4034,2	4209,6	4380,7	4930,4
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS (at current market prices)	6657,2	8727,4	9323,3	13059,5	16198,6	16462,6	20212,3	32274,3	33766,5	36443,4	38812,3
-USD (as per PPP)	736	711	757	935	997	1158	1433	1615	1652	1834	2038
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	66,0	66,2	66,3	66,5	66,4	67,3	67,4	67,7	67,7	67,9	68,0
Women	71,5	72,5	72,2	72,3	72,4	72,5	72,3	72,6	72,7	72,9	73,0
Share in economically active population ³											
Men	55,2	57,6	57,8	56,8	58,4	60,2	60,6	60,9	62,1	66,1	67,2
Women	44,8	42,4	42,2	43,2	41,6	39,8	39,4	39,1	37,9	33,9	32,8
Salary ratio (women/men, in %)	77,7	67,7	72,4	72,3	58,6	60,4	55,4	84,7	71,3	72,5	70,1
Share of poor population (including extremely poor, in %) ⁴											
Households	63,9	51,2	43,6	34,6	18,6	25,6	26,8	27,6	27,8	43,3	32,4
Population	69,0	59,1	50,9	40,4	20,7	31,5	33,6	35,6	34,2	53,9	40,7
Share of extremely poor population (in %) ⁴											
Households	31,9	14,6	13,4	7,5	4,3	4,7	4,4	2,8	1,6	4,9	1,7

Batken oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Population	37,3	18,8	16,1	9,2	3,9	6,0	5,2	3,6	2,4	8,0	2,6
Share of population having no access to safe drinking water (in %) ⁴	28,2	28,4	19,1	19,7	23,3	27,2	27,3	30,3	30,0	26,9	25,7
Share of population having no access to health care (in %) ⁴	7,7	4,0	4,3	4,3	1,4	0,8	1,2	2,7	2,1	1,6	1,1
Share of underfed children aged 1 to 6 years (in %) ⁴	4,2	2,3	2,2	5,2	3,4	4,1	2,3	3,7	4,2	9,8	8,9
Share of children not going to school (in %) ⁵	0,1	0,1	0,01	0,01	0,01	0,1	0,2	0,3	0,1	0,1	0,1
DEVELOPMENT INDICES											
HDI ⁶	0,575	0,573	0,576	0,596	0,599	0,612	0,629	0,640	0,641	0,649	0,654
PPI-1	10,1	9,3	7,5	7,9	7,6	8,1	8,0				
GRDI ⁶	0,566	0,556	0,563	0,584	0,579	0,591	0,605	0,629	0,624	0,627	0,631
WEI (women empowerment index)	0,357	0,464	0,507	0,456	0,464	0,465	0,470	0,467	0,462	0,453	0,450

¹ Taking into account Batken city founded in 2000 and Isfana city founded in 2001.

² Before 2009 minimum consumer budget.

³ Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

⁴ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁵ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁶ The calculation is made according to the geometric average instead of arithmetic average.

⁷ In 2012 2 cities of regional subordination were created based on 2 urban settlements of the same name: Aidarken and Kadamjai urban settlements.

⁸ In 2012 reduction in urban settlements occurred due to transformation of 2 cities of regional subordination based on urban settlements of the same name (see note 7 for details) as well as due to transformation of 2 urban settlements into rural settlements: Sovetskii and Chauvai urban settlements.

Note. The data for some indicators for the previous years was updated.

Osh oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	7	7	7	7	7	7	7	7	7	7	7
Cities	2	3 ¹	3	3	3	3	3	3	3	3	3
Urban settlements ²	2	2	2	2	2	2	2	2	-	-	-
Avil aimak	79	86	86	86	86	86	86	86	88	88	88
De-jure population size (as of the end of the year, thousand people)	974,1	1 057,7	1 074,9	1 084,7	1 101,2	1 117,9	1 130,9	1 147,7	1 173,2	1 199,9	1 228,4
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	44,0	56,3	50,7	48,9	41,2	31,9	34,7	36,9	44,7	42,2	39,8
Industry	5,6	4,7	4,8	2,1	1,9	3,4	4,1	4,7	5,8	5,4	5,1
Service area	41,8	26,6	27,2	31,0	34,6	41,5	46,0	42,5	42,5	46,8	49,5
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1024,4	1561,2	2140,8	2645,0	3406,7	3200,3 ²	3369,4	4253,4	4228,0	4632,7	5191,9
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS at current market prices	7781,0 ⁸	10086,4	12149,8	14816,3	18296,5	18946,7	20006,7	27439,0	25545,5	25264,8	27774,0
-USD (as per PPP)	859,8 ⁸	1051 ⁸	1222 ⁸	1331 ⁸	1383 ⁸	1448 ⁸	1313 ⁸	1550 ⁸	1636 ⁸	1740 ⁸	1876 ⁸
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	66,9 ⁸	66,7	66,7	66,4	66,6	66,8	66,3	66,6	66,9	67,3	67,5
Women	72,8 ⁸	73,1	72,2	72,5	72,8	72,6	72,9	73,2	73,5	73,7	73,9
Share in economically active population ³											
Men	54,5	57,4	58,1	58,9	57,6	60,1	60,1	60,1	61,0	58,5	55,6
Women	45,5	42,6	41,9	41,1	42,4	39,9	39,9	39,9	39,0	41,5	44,4
Salary ratio (women/men, in %)	78,9	69,2	71,6	78,1	66,8	70,8	66,2	88,4	76,6	77,6	77,5
Share of poor population (including extremely poor, in %) ⁴											
Households	61,8	46,2	42,5	38,8	28,8	30,1	32,1	34,2	40,7	33,9	23,5
Population	70,7	55,9	52,1	46,6	37,5	38,3	41,9	44,7	51,4	43,4	31,7
Share of extremely poor population (in %) ⁴											
Households	30,1	7,9	5,6	3,3	2,7	1,3	4,8	2,3	1,4	2,5	0,3
Population	36,7	10,2	7,6	6,4	4,5	2,0	8,3	3,7	2,3	4,0	0,4

Osh oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ⁴	36,6	40,7	24,9	17,0	22,7	22,9	17,7	13,6	11,3	26,3	27,1
Share of population having no access to health care (in %) ⁴	6,9	4,8	5,1	9,8	2,6	7,3	0,8	2,4	2,5	0,2	0,2
Share of underfed children aged 1 to 6 years (in %) ⁴	5,2	6,4	8,3	2,2	5,2	5,6	12,1	5,5	7,1	5,2	3,3
Share of children not going to school (in %) ⁵	0,1	0,1	0,2	0,1	0,3	0,2	0,3	0,2	0,2	0,1	0,4
DEVELOPMENT INDICES⁸											
HDI ⁶	0,593	0,601	0,615	0,624	0,621	0,625	0,614	0,627	0,632	0,641	0,648
PPI-1	11,7	12,6	9,8	9,0	8,4	9,3	8,4				
GRDI ⁶	0,585	0,582	0,596	0,607	0,604	0,610	0,595	0,617	0,618	0,628	0,636
WEI (women empowerment index)	0,396	0,470	0,466	0,467	0,492	0,470	0,472	0,451	0,415	0,411	0,403

¹ Here and in future including Nookat city founded in 2003.

² Before 2009 minimum consumer budget.

³ Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower, including Osh city.

⁴ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁵ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁶ The calculation is made according to the geometric average instead of arithmetic average.

⁷ In 2012 2 urban settlements were transformed into rural settlements: Naiman and Sary-Tash urban settlements.

⁸ Osh oblast, including Osh city.

Note: The data for some indicators for the previous years was updated.

Talas oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	4	4	4	4	4	4	4	4	4	4	4
Cities	1	1	1	1	1	1	1	1	1	1	1
Urban settlements ⁶	1	1	1	1	1	1	1	1	-	-	-
Avil aimak	35	36	36	36	36	36	36	36	37	37	37
De-jure population size (as of the end of the year, thousand people)	205,1	218,4	221,5	223,8	226,3	229,0	231,8	235,3	239,5	243,4	247,2
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	75,6	68,9	70,4	62,1	64,3	51,1	54,7	39,7	49,2	53,8	50,7
Industry	3,9	6,0	5,7	4,2	2,6	4,7	3,3	6,8	4,6	4,3	4,3
Service area	18,5	18,3	20,5	28,6	22,7	32,1	35,2	46,1	40,3	37,2	40,0
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1030,0	1437,9	2056,6	2464,3	3267,9	2893,8 ¹	3212,6	4090,8	3999,1	4207,3	4631,7
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS at current market prices	13116,3	21321,4	24334,0	26916,4	38798,0	27410,9	32884,0	29331,3	41088,6	47350,8	57050,8
-USD (as per PPP)	1457	1864	2157	2154	2641	1737	1962	1489	1931	2185	2480
SOCIAL INDICATORS											
Life expectancy (years old) ³											
Men	66,2	62,1	62,6	63,1	63,1	63,8	64,1	64,5	64,8	65,1	65,3
Women	72,3	71,4	71,6	71,4	71,9	72,5	72,9	73,2	73,6	73,9	74,1
Share in economically active population ²											
Men	53,2	58,1	57,3	56,8	56,2	56,2	57,0	57,8	57,5	56,5	54,4
Women	46,8	41,9	42,7	43,2	43,8	43,8	43,0	42,2	42,5	43,5	45,6
Salary ratio, women/men (in %)	71,1	63,2	80,0	74,3	69,6	52,3	58,7	87,1	78,1	80,1	72,8
Share of poor population (including extremely poor, in %) ³											
Households	74,7	35,9	32,3	28,3	36,5	26,6	33,1	39,8	29,7	17,3	14,5
Population	80,8	44,4	40,0	35,3	43,0	33,0	42,3	50,2	39,6	23,1	19,0
Share of extremely poor population (in %) ³											
Households	38,5	10,0	7,1	5,8	3,3	1,7	3,0	5,7	0,5	0,0	0,0
Population	48,5	14,1	9,7	7,9	4,6	2,9	5,0	8,4	0,9	0,0	0,0

Talas oblast

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ³	0,1	2,7	1,6	0,7	4,1	3,9	3,1	3,5	2,4	0,3	0,3
Share of population having no access to health care (in %) ³	10,3	10,0	4,5	6,1	1,0	1,6	0,5	0,2	0,4	1,6	1,2
Share of underfed children aged 1 to 6 years (in %) ³	4,0	6,6	7,2	9,4	10,8	4,9	10,1	4,1	1,6	2,0	2,8
Share of children not going to school (in %) ⁴	0,8	0,1	0,1	0,02	0,02	0,2	0,8	1,1	1,0	0,7	0,5
DEVELOPMENT INDICES											
HDI ⁵	0,632	0,636	0,647	0,647	0,661	0,631	0,642	0,622	0,641	0,651	0,659
PPI-1	5,9	7,5	6,4	6,8	6,7	6,3	6,3				
GRDI ⁵	0,622	0,620	0,636	0,635	0,647	0,611	0,624	0,614	0,631	0,642	0,650
WEI (women empowerment index)	0,423	0,524	0,528	0,526	0,535	0,518	0,523	0,521	0,430	0,424	0,426

¹ Before 2009 minimum consumer budget.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 - the data of the integrated sample survey of households' budgets and manpower.

³ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁴ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁵ The calculation is made according to the geometric average instead of arithmetic average.

⁶ In 2012 Maimak urban settlement was transformed into a rural settlement.

Note. The data for some indicators for the previous years was updated.

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	5	5	5	5	5	5	5	5	5	5	5
Cities	1	1	1	1	1	1	1	1	1	1	1
Urban settlements ⁶	2	2	2	2	2	2	2	2	-	-	-
Avyl aimak	56	61	61	61	61	61	61	61	63	63	63
De-jure population size (as of the end of the year, thousand people)	251,8	257,0	257,3	257,0	257,2	259,3	262,1	264,9	268,0	271,3	274,5
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	70,8	53,7	48,0	44,3	42,1	28,5	14,5	21,2	20,7	26,2	22,7
Industry	7,9	10,8	7,6	4,6	1,9	7,7	5,8	7,7	6,8	5,0	6,1
Service area	16,5	23,7	23,0	23,9	30,6	39,1	41,6	59,2	56,8	54,6	48,8
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1080,9	1443,3	2119,1	2426,4	3186,9	2924,8 ¹	3303,9	4148,3	4130,4	4421,7	4625,4
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS at current market prices	12150,7	16738,2	20771,1	25437,7	32434,7	28866,6	29297,6	30272,1	35606,3	37848,0	43483,1
-USD (as per PPP)	1417	1469	1897	2005	2153	1849	1798	1558	1728	1835	1888
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	66,3	61,9	59,7	60,0	62,0	63,0	63,1	63,0	63,3	63,4	63,6
Women	73,4	70,0	71,1	71,0	71,2	71,8	72,1	72,5	72,7	72,8	73,0
Share in economically active population ²											
Men	56,9	65,1	65,9	65,7	65,4	66,6	67,4	67,2	68,1	70,1	71,6
Women	43,1	34,9	34,1	34,3	34,6	33,4	32,6	32,8	31,9	29,9	28,4
Salary ratio (women/men, in %)	69,3	73,7	71,4	76,8	77,5	67,5	60,7	95,9	95,5	88,1	81,3
Share of poor population (including extremely poor, in %) ³											
Households	87,6	45,1	47,6	41,7	37,2	40,1	48,4	44,9	35,4	35,0	24,9
Population	90,9	51,2	49,3	45,2	42,7	44,1	53,5	49,9	39,9	43,8	30,6
Share of extremely poor population (in %) ³											
Households	62,7	17,4	13,5	10,4	8,7	7,6	10,8	10,8	1,6	3,3	1,6
Population	68,6	20,0	15,1	12,8	11,6	10,0	12,0	14,7	2,5	4,9	1,8

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ³	6,7	11,9	40,1	11,4	8,0	4,1	9,9	10,8	10,9	13,2	15,6
Share of population having no access to health care (in %) ³	12,4	2,8	1,3	4,3	1,7	1,7	2,1	1,0	1,8	7,0	7,7
Share of underfed children aged 1 to 6 years (in %) ³	3,1	5,1	3,0	5,3	4,7	4,2	16,9	14,7	14,0	15,2	9,2
Share of children not going to school (in %) ⁴	0,5	0,7	0,6	0,6	0,7	1,1	1,4	1,9	1,8	0,6	0,4
DEVELOPMENT INDICES											
HDI ⁵	0,635	0,625	0,635	0,640	0,649	0,639	0,635	0,625	0,632	0,633	0,634
PPI-1	7,7	8,4	12,0	8,2	7,6	7,3	8,8				
GRDI ⁵	0,625	0,602	0,612	0,619	0,629	0,613	0,604	0,609	0,615	0,612	0,607
WEI (women empowerment index)	0,447	0,513	0,506	0,505	0,515	0,500	0,505	0,490	0,580	0,608	0,606

¹ Before 2009 minimum consumer budget.

² Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

³ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁴ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁵ The calculation is made according to the geometric average instead of arithmetic average.

⁶ In 2012 2 urban settlements were transformed into rural settlements: Dostuk and Min-Kush urban settlements.

Note. The data for some indicators for the previous years was updated.

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Territory											
Number of administrative-territorial units (as of the end of the year):											
Districts	8	8	8	8	8	8	8	8	8	8	8
Cities	5	7 ¹	7	7	7	7	7	7	8 ⁹	8	8
Urban settlements	8	7 ²	7	7	7	7	7	7	4 ¹⁰	4	4
Settlements ³	-	3	3	3	3	3	3	3	3	3	3
Avil aimak	68	68	68	68	66	66	66	66	68	68	68
De-jure population size (as of the end of the year, thousand people)	896,3	969,9	983,9	992,2	1 006,8	1 023,2	1 036,7	1 054,3	1 076,7	1 099,2	1 122,4
ECONOMY STRUCTURE (in % to GRP)											
Agriculture	29,3	35,8	36,1	38,6	40,7	29,6	32,3	27,5	25,0	26,6	27,9
Industry	44,0	26,5	26,5	23,9	19,6	17,5	21,9	31,6	26,6	22,1	19,2
Service area	19,0	31,5	30,7	29,9	29,5	34,8	30,4	33,2	35,7	40,2	42,2
MINIMUM LIVING WAGE											
Minimum living wage per capita (KGS per month)	1104,3	1634,3	2101,2	2473,2	3137,5	2993,8 ⁴	3271,1	4509,8	4433,4	4505,5	4915,2
PRODUCTION PER CAPITA											
Gross regional product (GRP)											
-KGS at current market prices	13219,2	12500,1	14733,7	17450,0	24284,9	24725,4	27635,4	33652,6	37129,0	36892,9	41411,2
-USD (as per PPP)	1575	1242	1334	1402	1587	1621	1679	1883	1934	1823	1911
SOCIAL INDICATORS											
Life expectancy (years old)											
Men	68,0	65,5	65,5	65,7	65,6	66,3	66,7	66,8	67,1	67,2	67,3
Women	72,9	71,8	72,2	72,6	72,5	73,0	73,2	73,4	73,6	73,8	74,0
Share in economically active population ⁵											
Men	52,7	55,7	56,3	56,3	55,3	57,8	59,1	59,7	59,7	58,9	58,6
Women	47,3	44,3	43,7	43,7	44,7	42,2	40,9	40,3	40,3	41,1	41,4
Salary ratio (women/men, in %)	58,0	57,7	56,5	58,7	56,2	54,3	53,0	69,8	69,8	68,9	65,7
Share of poor population (including extremely poor, in %) ⁶											
Households	67,6	46,3	51,7	43,9	30,4	28,3	36,2	35,0	46,5	37,7	36,6
Population	76,5	55,9	58,3	53,0	40,1	36,9	44,7	45,3	55,7	46,4	46,4
Share of extremely poor population (in %) ⁶											
Households	26,5	13,0	13,1	8,6	4,5	0,2	3,9	3,8	9,3	0,6	0,7
Population	36,1	18,0	17,3	12,0	9,8	0,5	6,4	6,7	14,1	1,4	1,1

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %) ⁷	13,1	7,1	5,6	5,1	5,6	5,6	5,0	4,6	4,0	8,4	10,5
Share of population having no access to health care (in %) ⁶	7,2	2,2	2,1	5,4	1,7	0,5	2,0	1,3	5,6	1,4	1,1
Share of underfed children aged 1 to 6 years (in %) ⁶	6,9	2,8	2,5	7,4	7,3	3,6	2,1	6,1	11,5	7,8	7,0
Share of children not going to school (in %) ⁷	0,4	0,1	0,1	0,05	0,1	0,2	0,2	0,1	0,1	0,1	0,1
DEVELOPMENT INDICES											
HDI ⁸	0,642	0,611	0,613	0,620	0,627	0,630	0,632	0,641	0,643	0,638	0,642
PPI-1	7,2	5,5	5,5	5,9	5,5	5,1	4,9				
GRDI ⁸	0,630	0,593	0,595	0,603	0,609	0,609	0,609	0,626	0,628	0,624	0,627
WEI (women empowerment index)	0,408	0,445	0,446	0,437	0,453	0,458	0,454	0,450	0,448	0,452	0,452

¹ Here and in future taking into account Kochkor-Ata city founded in 2003 and Kerben city founded in 2004.

² Reduction in urban settlements occurred due to formation of Kochkor-Ata city in 2003 based on the urban settlement of the same name.

³ 2002 Sary-Bee settlement kenesh was created in Mailuu-Suu city consisting of 3 settlements: Sary-Bee, Kogoi and Kara-Jygach.

⁴ Before 2009 minimum consumer budget.

⁵ Data source: 1995-2000 – a manpower account balance, 2005-2014 – the data of the integrated sample survey of households' budgets and manpower.

⁶ The data from 2003 is presented according to the results of 5016 households integrated sample survey.

⁷ The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

⁸ The calculation is made according to the geometric average instead of arithmetic average.

⁹ In 2012 Toktogul urban settlement was assigned to the category of the cities of regional subordination.

¹⁰ In 2012 reduction in urban settlements occurred due to formation of 1 city of regional subordination based on the urban settlement of the same name (Toktogul urban settlement) as well as transformation of 2 urban settlements into rural settlements: Terek-Sai and Sumsar urban settlements.

Note. The data for some indicators for the previous years was updated.

Osh city

[illegible]

Osh city

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOCIAL INDICATORS											
Share of population having no access to safe drinking water (in %)										0,3	3,5
Share of population having no access to health care (in %)										0,2	0,3
Share of underfed children aged 1 to 6 years (in %)										15,4	9,8
Share of children not going to school (in %) ²	-	0,02	0,02	0,01	0,02	0,2	0,04	0,01	0,02	0,02	0,01
DEVELOPMENT INDICES											
HDI											
PPI-1											
GRDI											
WEI (women empowerment index)											

¹ Before 2003 Osh city was included into Osh oblast.

² The data is presented according to the unit weight of children not going to school aged 7 to 17 years.

³ The data of the integrated sample survey of households' budgets and manpower.



National human development report

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SUSTAINABLE DEVELOPMENT GOALS



