

# INCLUSIVE GREEN ECONOMY IN THE KYRGYZ REPUBLIC

## STOCKTAKING REPORT



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This stocktaking report is the first stage in the implementation of the PAGE programme (Partnership for Action for Green Economy). This document sets out an analysis of conditions and challenges to integration of green economy in the Kyrgyz Republic and describes the measures taken by the government of the country in addressing the key problems. This report also identifies areas of priority and recommends actions for PAGE.

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This stocktaking report is the first step of the PAGE (Partnership for Action on Green Economy) programme implementation and was prepared by the joint efforts of the Ministry of Economy, National Statistical Committee, and the State Agency for Environment Protection and Forestry under the Government of the Kyrgyz Republic.

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# ABBREVIATIONS AND ACRONYMS

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<b>CES</b>	Common Economic Space
<b>CIF</b>	Climate Investment Fund
<b>CCT</b>	Common Customs Tariff
<b>CCI</b>	The Chamber of Commerce and Industry of the Kyrgyz Republic
<b>CFMZ</b>	Common Free Market Zone
<b>CIS</b>	Commonwealth of Independent States
<b>CPEIR</b>	Climate Public Expenditure and Institutional Review
<b>CU</b>	Customs Union
<b>EEA</b>	Experimental Ecosystem Accounting
<b>EDB</b>	Eurasian Development Bank
<b>EEC</b>	Eurasian Economic Commission
<b>EECCA</b>	Eastern Europe Caucasus Central Asia countries
<b>EEU</b>	Eurasian Economic Union
<b>EIA</b>	Environmental Impact Assessment
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>ESD</b>	Education for Sustainable Development
<b>EPI</b>	Environmental Performance Index
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GEF</b>	Global Environment Fund
<b>GCR</b>	Global Competitiveness Report
<b>GIZ</b>	Gesellschaft für Internationale Zusammenarbeit
<b>GDP</b>	Gross-Domestic Product
<b>GSP</b>	Generalized System of Preferences
<b>HEPS</b>	Hydroelectric Power Station
<b>IEG</b>	Inclusive Economic Growth
<b>ICSD</b>	Commission on Sustainable Development
<b>IGE</b>	Inclusive Green Economy
<b>ILO</b>	International Labour Organization
<b>ISO</b>	International Organization for Standardization
<b>IWRM</b>	Integrated Water Resources Management
<b>KGS</b>	Kyrgyz som
<b>KGC</b>	Kumtor Gold Company
<b>MES</b>	Ministry of Education and Science
<b>MDG</b>	Millennium Development Goal
<b>MICE</b>	Meetings, incentives, conferences and exhibitions

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<b>MTEF</b>	Medium-Term Expenditure Framework
<b>NAMA</b>	Nationally Appropriate Mitigation Actions
<b>NSSD</b>	National Strategy for Sustainable Development of the Kyrgyz Republic 2013-2017
<b>NSC</b>	National Statistics Committee of the Kyrgyz Republic
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>OSCE</b>	Organization for Security and Co-operation in Europe
<b>PAGE</b>	Partnership for Action on Green Economy
<b>PEE</b>	Public Environmental Expertise
<b>PSRR</b>	Public Sector Reform Roadmap
<b>PIP</b>	Public Investment Programmes
<b>PPCR</b>	Pilot Program to Improve Climate Resilience
<b>PEI</b>	Poverty-Environment Initiative
<b>PPP</b>	Public-Private Partnership
<b>PTSD</b>	Plan of Transition to Sustainable Development of the Kyrgyz Republic 2013-2017
<b>SDGs</b>	Sustainable Development Goals
<b>SEA</b>	Strategic Environmental Assessment
<b>SEER</b>	State Environmental Expert Review
<b>SAEPF</b>	State Agency for Environmental Protection and Forestry in the Kyrgyz Republic
<b>SEEA</b>	System of Environmental and Economic Accounting
<b>toe</b>	Ton of oil equivalent
<b>UES CA</b>	United Energy System of Central Asia
<b>UNECE</b>	United Nations Economic Commission for Europe
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNCCD</b>	United Nations Convention to Combat Desertification
<b>UNDAF</b>	United Nations Development Assistance Framework
<b>UNEP</b>	United Nations Environment Programme
<b>UNICEF</b>	United Nations Children's Fund
<b>UNFPA</b>	United Nations Population Fund
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>UNITAR</b>	United Nations Institute for Training and Research
<b>USAID</b>	United States Agency for International Development
<b>UNWTO</b>	United Nations World Tourism Organization
<b>VAT</b>	Value-added tax
<b>WTO</b>	World Trade Organization

# EXECUTIVE SUMMARY

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At the UN Conference on Sustainable Development "Rio + 20" in 2012, Kyrgyzstan expressed its commitment to sustainable development through promoting the priorities of the "green economy". For the Kyrgyz Republic, such a transition is an urgent necessity, since the country's socio-economic development is largely based on the consumption of natural resources. In its development the country faces problems such as depletion of natural resources without creating effective alternatives, loss of basic natural ecosystems and stagnation of human capital which may threaten the future sustainable development of the country.

The Kyrgyz Republic has been actively pursuing policies aimed at strengthening its economic potential in accordance with the main strategic guidelines and objectives set forth in the National Strategy for Sustainable Development, the national document that defines the agenda for national development. Each of the strategic sectors of the economy in the Kyrgyz Republic such as agriculture, processing and processing industry, energy, mining, transport, construction and tourism has a number of specific challenges that may hinder the successful achievement of the national sustainable development goals. In agriculture, for example, it is necessary to take measures to improve the system of agricultural management, improve the quality and range of technical services, promote technological modernization of agricultural production, create conditions for the development of cooperatives and modern market infrastructure, increase production and exports, increase efficiency of land use, and develop organic agriculture.

In the industrial sector, there is a need to increase manufacturing capacity through resource-efficient technologies, reducing energy costs and creating mechanisms to stimulate resource-efficient technologies, rational use of local labor and minimize environmental impact. In the energy sector there is an active growth in consumption rates with a decrease in hydro-electricity production caused by a decrease in water and energy resources due to the small volume of water inflow. In addition, losses of electricity are retained due to a high wear rate of electrical networks, which have exceeded the service life of transformers in substations, meters and electricity metering. It is believed that Kyrgyzstan has favorable conditions for the development of solar energy and biogas technologies, as well as electricity based on wind energy, small watercourses and solar photovoltaic power plants.

Mining industry is of particular importance for the country's economy. The availability of its own mineral resource base is a great advantage of the Kyrgyz Republic and its development has a capacity to significantly increase the country's GDP and tax revenues. Particular importance is attached to the reserves of gold, rare and rare earth metals, as well as nonmetallic minerals. However, the fineness of mineral reserves requires the state consider its long-term cost effectiveness, taking into account their retirement from the balance of the country's natural capital. A separate element of the assessment of benefits and costs is the storage of toxic wastes that remain in the country after the closure of mining enterprises and require significant financial investments to support them in proper condition to avoid negative impacts. Priority directions of this sector are modernization of mining management (administration), enhancement of legal regulations, improvement of the access to the subsoil use rights and administration of subsoil use, improvement of the taxation system; reduction of the environmental impact, reduction of conflict potential (relationships with the local population), building professional capacity and promotion of small-scale mining.

In the Kyrgyz Republic, construction industry remains energy intensive, as the support for the budget for the development and implementation of energy-efficient technologies and related innovations remain low. Construction companies refrain from using new technologies because of consumer distrust of innovations in construction. The lack of environmental certification of construction and repair materials aggravates the situation.

Construction sector in the Kyrgyz Republic is currently energy-intensive mainly due to a lacking support for development and introduction of resource-efficient technologies and related innovations. Construction companies tend to refrain from application of new technologies because customers have low level of trust towards innovations in the construction sphere. Absence of environmental certification of construction materials compounds the situation.

In the sector of tourism, challenges remain related to the creation of conditions for the formation of sustainable and competitive tourism products and services with the simultaneous preservation of cultural and historical sites and minimal negative impact on the environment and improving the efficiency of state regulation of the development of the tourism industry.



In terms of the state of the environment, in Kyrgyzstan the natural ecosystems have for the most part not lost the ability to self-regulate the process of renewal of bio-resources and ensuring ecological balance. However, signs of degradation are already present. Progressive urbanization of territories is accompanied by a significant increase in atmospheric air pollution, a decrease in access to quality drinking water, degradation of land resources, loss of biological diversity, accumulation of solid domestic waste, an increase in the number and scale of emergency situations of natural and man-made nature. Expected climate change will have a significant impact on the living and health conditions of the population. The water resources of the republic may become vulnerable and reduce the opportunities for the development of hydropower and agricultural production. Also, climate change will lead to an increase in natural emergency. At the moment, the country is in the process of realizing and adapting the goals and priorities of sustainable development, taking into account the ongoing processes, both at the national level and in the international arena. Fundamentals of state policy in the field of environmental protection are defined in the national strategic documents, and institutional and legislative infrastructure has been created for the implementation of effective environmental policy. Also, a number of international agreements on environmental issues have been signed, and a management system for environmental activities has been created.

Thus, development of an inclusive "green" economy in the Kyrgyz Republic will require harmonization of national strategic plans and their practical implementation at the sectoral level as well as addressing the problem of human, institutional and economic potential, insufficient level of stimulation of the transition to a green economy and the lack of a system for accounting for natural capital. Recommended actions within the framework of PAGE for the Kyrgyz Republic at the national level include introduction of the processes of implementing economic modeling with the transition to a "green economy" and sustainable development and the development of data-driven policies; introduction of the concept of "green jobs" and their statistical measurement in practice; development and use of data to forecast macroeconomic green employment model at the national level. Recommendations at the sectoral level are described in more detail in the last chapter of this overview report.

With regards to the analysis of the current situation, authors identified priority directions and recommendations for the national and sector-based level implementation of PAGE. On the national level it is recommended that

measures are being undertaken to build human and institutional capacity among all key stakeholders for green economy and to integrate principles of green economy into educational sector, fiscal policies, tariffs and state purchases, and subsidies. It is of paramount importance to support the Government in its efforts to conduct economic valuation of natural capital and eco-systems and to develop an effective system of monitoring in accordance with international and national development strategies.

It is crucial to integrate inclusive green economy into strategic sustainable development documents. On the sectoral level, green economy priorities within Kyrgyz Republic's participation in PAGE include development of low-carbon energy and energy efficiency, organic agriculture, eco-tourism, 'green' construction, development of technologies to minimize environmental pollution, climate change adaptation, protection of natural ecosystems, increased safety of social objects and education for sustainable development.

# 1. INTRODUCTION

## 1.1. PARTNERSHIP FOR ACTION ON GREEN ECONOMY (PAGE)

**1** In 2012, Rio+20 (the United Nations Conference on Sustainable Development) was held in Brazil. The conference's outcome document entitled *The Future We Want* was a call to action for governments, business and the UN alike to support countries interested in transition to a green economy. As the UN direct response to this call the Partnership for Action on Green Economy (PAGE) was launched by five UN agencies - the United Nations Environment Programme (UNEP), the International Labor Organization (ILO), the United Nations Development Programme, the United Nations Industrial Development Organization (UNIDO) and the United Nations Institute for Training and Research (UNITAR) in 2013. The new partnership puts sustainability at the heart of economic policymaking to advance 2030 Agenda for Sustainable Development and provides assistance to interested countries in developing, adopting and implementing green economy policies and strategies. Over the next years PAGE will offer a comprehensive and coordinated package of technical assistance and capacity building services to national governments in 20 countries around the world to support building national green economy strategies that will generate new jobs and skills, promote clean technologies, and reduce environmental risks and poverty.

**2** PAGE is well aligned with the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) by focusing on the transformation to an Inclusive Green Economy (IGE). It supports countries in achieving many of the SDGs as IGE aims to benefit people and the planet through increased prosperity. In an IGE, growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.

**3** PAGE is particularly well aligned with the SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employ-

ment and decent work for all because IGE aims to generate growth, employment, income and wealth in an inclusive manner while reducing environmental risks. PAGE also represents a mechanism to coordinate UN action on green economy and to assist countries in achieving and monitoring the SDG 17: Revitalize global partnership for sustainable development. PAGE outcomes closely match the SDG 17 targets for policy coherence as PAGE promotes coordinated action across ministries and society. PAGE also supports sustainable trade, another target of SDG 17, by assisting countries in identifying opportunities for promoting sustainable exports

**4** The United Nations Development Assistance Framework (UNDAF) for Kyrgyzstan in 2012-2017 included as a core principle of work achievement of "integrated and sustainable development for poverty reduction and job creation". The next UNDAF project for 2018-2022 provides for supporting the Government of the Kyrgyz Republic in the achievement of the country's strategic priorities, consistent with the goals of sustainable development (SDGs). The four expected UNDAF Outcomes were identified jointly with the Government, the United Nations, civil society and other development partners. They are as follows:

- I.** Sustainable and comprehensive economic growth
- II.** Good governance and the rule of law
- III.** Environment, climate change and disaster risk management
- IV.** Social protection, health and education.

**5** Since 2011, the UNDP-UNEP Poverty and Environment Initiative (PEI), with official support from the Government of the Kyrgyz Republic, has been implemented to integrate interlined issues of economic growth, poverty and the environment into strategic planning and budgeting processes at the national, sectoral and regional level – all necessary for sustainable development. Under the leadership of the Minister of Economy of the Kyrgyz Republic, the PEI Advisory Board inclusive of the heads of ministries and departments was established for the evaluation and promotion of PEI. The initiative has become one of the first building blocks of the green economy in the country and will serve as a solid basis for continuing activities within the framework of PAGE. The national development priorities of the country, the goals of the United Nations Development Assistance Framework (UNDAF), the current

UNDP-UNEP Poverty and Environment Initiative and PAGE have been harmonized.

**6** The Kyrgyz Republic has been selected to be one of the PAGE countries. The work will build on the on-going partnership with PAGE partners as the country has been engaged with the UNDP-UNEP Poverty-Environment Initiative (PEI) since 2011 setting the stage for further IGE action. The UNDAF Country Program for Kyrgyzstan, adopted in 2012, included a pillar of work aimed at achieving “comprehensive and sustainable development in order to reduce poverty and create jobs”, and UNDAF supports the Kyrgyz Government on many issues included in the National Sustainable Development Strategy, including formulation of economic policies based on sustainable use of natural resources, application of natural saving economic growth principles, and change fiscal regulation. The Ministries of Economy, Finance, Agriculture and Melioration, Education and Science, and the State Agency for Environment Protection and Forestry have expressed their interest in participating in the PAGE initiative.

**7** The PAGE inception phase will include a stock-taking report (current document), an analysis of green jobs and green economy modeling. This stocktaking report identifies the key economic, social and environmental challenges in the Kyrgyz Republic, how the Government addresses them, what various agencies do to assist the process and analyze how the PAGE program can effectively support the on-going policies and develop new ones.

## 1.2. THE KYRGYZ REPUBLIC

**8** The Kyrgyz Republic is a landlocked mountainous country located in the eastern part of the Central Asian region. It shares borders with Kazakhstan in the north, China in the east, Uzbekistan in the west, and China and Tajikistan in the south. It has a land area of 199,900 square km. Sharp mountain peaks and valleys dominate the country's topography, and glaciers cover considerable areas of the country. Approximately 40% of the territory is uninhabitable comprised of glaciers, perennial snow, cliffs, and alpine deserts. The climate is continental with considerable variation across the regions. Lower mountain slopes have a dry continental climate due to desert-warmed winds from Kazakhstan and Uzbekistan, whereas the highest mountains have a polar climate.

**9** In 2017 the population of the Kyrgyz Republic comprised about 6.14 million people. Fluctuating mortality rate, increased birth rate and growing out-migration characterize demographic dynamics. Average density of population is 31 persons per square km. However, only 40% of the country's area is suitable for living. Two thirds of the population lives in rural areas and one third (about 34%) reside in urban territories. UNFPA's forecast estimates a growth to 8 million people by the year 2025.

**10** Life expectancy of 70.6 years has considerable gender disparity, with men living 66.7 years on average while women living on average 74.8 years (data of 2015). Population is young (over half of population is under the age of 25) which presents both, a great potential and opportunity for the country's development, and continuous pressures for the labor market for new jobs, resulting in very large labor inflows, mainly toward the unemployment pool.

**11** For 2015 the country has 0.655 Human Development Index <sup>1</sup>, ranked 120 (out of 188) as a medium human development category. It was successful in achieving several key MDGs, especially on achievement of the universal primary education, ensuring environmental sustainability and development of global partnership. In 2015, the level of poverty was 32.1% or 1,931 million people.

## 1.3. CONDITIONS FOR GREEN ECONOMY IN THE KYRGYZ REPUBLIC

**12** Transition to sustainable development through advancement of green economy in the Kyrgyz Republic has been recognized as the most justified development vector due to resource-intensive national economy.

**13** The Kyrgyz Republic is facing problems in its today's development, which present threats for the future sustainable development of the country. The key ones are characterized by an overall environmental degradation without creating effective alternatives, uncontested depletion of natural resources and loss of eco-systems and stagnation of human capital.

<sup>1</sup> [http://hdr.undp.org/sites/all/themes/hdr\\_theme/country-notes/KGZ.pdf](http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KGZ.pdf)

**14** The anticipated climate change will have a significant impact on the living and health conditions of the population, but the water resources of the republic will be the most affected. This will reduce the potential and opportunities for the development of hydropower and agricultural production.

**15** At the United Nations Conference on Sustainable Development "Rio + 20" in 2012, Kyrgyzstan expressed its long-term commitment to sustainable development through promoting "green economy" priorities.

**16** In 2013 January within the National Strategy for Sustainable Development 2013-2017<sup>2</sup> (NSSD) a political course towards country's sustainable development was set up, and earlier in November 2012 the National Council for Sustainable Development was launched. On January 21, 2013, based on the Council's second meeting results, the National Strategy for Sustainable Development 2013-2017 (NSSD) was approved to be implemented under the guidance and overseeing of the National Council for Sustainable Development.

**17** The Program of Transition to Sustainable Development (PTSD) for 2013-2017 was developed and approved by the Government of the Kyrgyz Republic on April 30th, 2013, No.218 and endorsed by the Decree of the Parliament of the Kyrgyz Republic # 3694-V on December 18th 2013.

**18** Decree # 48 of the Government of the Kyrgyz Republic dated 19th of February 2015 approves the "Matrix of indicators for monitoring and evaluation of transition of the Kyrgyz Republic to sustainable development" including green growth indicators.

**19** The inclusion of natural capital into the national accounts can support inclusive development and more efficient management of the economy. For example, in 2016, methodological studies and a number of experimental calculations of "forest" accounts at the national level were carried out in accordance with the System of Environmental and Economic Accounting (SEEA). In order to introduce SEEA, an interdepartmental working group was created in the system of state statistics<sup>3</sup>. Parallel to the development of forest accounts, work on ecosystem forest accounts in the pilot area has been initiated.

2 Presidential Decree # 11, dated January 21, 2013

3 Order NSC KR of 27.01.2015 № 7 "On the working group for the creation of a system of environmental and economic accounting."



**20** On 1 January 2016, 17 sustainable development goals (SDGs) as set out in the Agenda for Sustainable Development for the period to 2030, adopted by the UN General Assembly on September 25, 2015, came into force in the Kyrgyz Republic<sup>4</sup>. The Kyrgyz Republic reiterated its full support for the Global Agenda for International Development until 2030. It supported the idea that Sustainable Development Goals were developed on the basis of the lessons learned from the implementation of the Millennium Development Goals and would take into account the needs of landlocked developing countries, including the landlocked developing countries such as the Kyrgyz Republic. It was stressed that "Kyrgyzstan intends to implement the SDGs taking into account the national specificities of development"<sup>5</sup>.

**21** As part of the adaptation and implementation of the SDGs, the Coordination Committee for the adaptation, implementation and monitoring of the SDGs was established in the Kyrgyz Republic under the chairmanship of the Prime Minister of the Kyrgyz Republic, composed of representatives of the Parliament, government agencies, international organizations, civil society<sup>6</sup>. Work is under way to analyze and adapt the objectives and indicators of the SDGs to the context of the Kyrgyz Republic. The Secretariat of the SDGs Committee for Coordination of the Adaptation Process was established in the Office of the Government of the Kyrgyz Republic.

4 Resolution No. 70/1. "Transforming Our World: An Agenda for Sustainable Development for the Period Until 2030"

5 Speech by the Minister of Foreign Affairs of the Kyrgyz Republic E. Abdyldaev at the UN Summit on Sustainable Development (September 25-27, 2015) Source: [http://www.mfa.gov.kg/public/images/file\\_library/201510071319191.pdf](http://www.mfa.gov.kg/public/images/file_library/201510071319191.pdf)

6 Decree of the Government of the Kyrgyz Republic of December 22, 2015 No. 867 "On the Coordinating Committee for the Adaptation, Implementation and Monitoring of the Sustainable Development Goals to 2030 in the Kyrgyz Republic".

## 2. SOCIAL AND ECONOMIC DEVELOPMENT

### 2.1. MACROECONOMIC SITUATION

**22** Socio-economic development in the Kyrgyz Republic is aimed at carrying out an active policy for the formation and strengthening of economic potential in accordance with the core strategic guidelines and objectives set forth in the NSSD.

**23** The government of the Kyrgyz Republic has successfully worked to maintain positive dynamic of economic growth, macroeconomic and social stability in the country.

**24** At the end of 2016, the GDP of the republic amounted to 6,597.5 US dollars. The real growth rate of GDP was 103.8%, and the average growth for 2013-2015 was 6.3% (GDP per capita in 2016 was \$ 1.134). The inflation rate for the years 2013-2016 averaged 5.3% (compared to the previous year). Against the backdrop of economic growth, the level of total unemployment declined, which on average amounted to about 8% during this period. The poverty level decreased from 37.0% in 2013 to 32.1% in 2015.

**25** The level of capitalization of the economy increased from 23.3% in 2013 to 29.6% in 2015, mainly due to an increase in the volume of foreign loans, household funds, funds of enterprises and organizations. Incoming foreign direct investment in 2015 compared with 2013 increased 1.6 times.

**26** The total volume of capital investments from all sources of financing in 2016 amounted to 133.4 billion soms and increased by 3.8%. Compared to 2015, the volume of investments in fixed assets financed by external sources of financing increased by 7.1%, the volume of domestic investments in fixed assets increased by 1.5% compared to 2015.

**27** The volume of foreign trade turnover according to preliminary data (taking into account the data of customs statistics) in 2016

amounted to 5,463.7 million US dollars, and compared to 2013 decreased by 31.7 percent.

**28** In the structure of trade turnover, exports accounted for 28.3%, imports to 71.7%. The negative balance of the trade balance in 2016 was 2,374.4 million US dollars (in 2015 – 2,599 million dollars). Excluding gold, exports of goods increased by 4.8% to 843.0 million US dollars.

**29** The structure of GDP production has undergone noticeable changes. The share of industrial production fell from 18.5% in 2013 to 17.5% in 2016, and the share of agriculture - from 14.6% to 13.2%. The share of the services sector increased from 46.6% in 2013 to 49.8% in 2016, and the construction sector from 6.3% to 8.5%.

**30** The main objectives in economic policy for the following three years (2017-2019 years) will be strengthening the positive trends in the socio-economic development, minimization of the expected problems and ensuring sustainable economic growth. Targeted macro-economic indicators will be achieved through the continued implementation of major national projects, effective management of state assets, and reforms in the system of state regulation to stimulate economic growth.

**31** Based on preliminary indicators of the social and economic development of the Kyrgyz Republic in 2017, the average annual real GDP growth for 2018-2020 is projected at 4.5%. In the sectoral context in 2018-2020, the forecasted average annual growth rates will be: in agriculture - 3.1%, in industry - 4.4%, in construction - 10.5%, in the provision of services - 3.8%. In general, the level of inflation in the forecast period is planned at the level of unambiguous indicators, subject to the absence of shocks, which is based on the continuation of the concerted monetary and fiscal policy aimed at strengthening the trends of macroeconomic stability.

**32** Positive growth rates are forecasted in all sectors of the economy.

**33** The growth in industrial production in 2018-2020 is projected on average to be 104.4% due to the steady operation of existing industrial enterprises, the resumption of idle production.

**34** In 2018-2020, real growth in agricultural production is projected to increase by an average of 3.1%, due to public and private sector measures to increase crop yields and livestock pro-

**Table 1. Macroeconomic forecast for 2017-2020 years<sup>7</sup>**

	Measure ment in	2015	2016	2017	2018	2019	2020
		Actual	Prelim. estimations	Expected	Forecasted	Forecasted	Forecasted
GDP in real prices, in million KGS	mil. KGS	430489,4	458027,4	494063,1	538134,8	589873,1	648480,1
Real growth in % to the same period in the previous year	%	103,9	103,8	103,5	103,6	104,8	105,2
GDP deflator	%	103,4	102,5	104,3	105,2	104,6	104,5
GDP per capita, in thousand KGS	Thousand KGS	75,5	78,7	83,2	88,8	95,5	103,0
Consumer price index (CPI) for the previous year	%	106,5	100,4	103,5	104,5	105,2	105,6
Employment growth	%	102,1	101,5	101,5	101,5	101,5	101,4
Unemployment	%	7,6	7,5	7,4	7,3	7,2	7,1
Growth of labor productivity	%	101,8	102,3	101,8	101,9	103,5	103,6
Actual growth of average monthly salaries	%	103,1	109,4	103,4	102,3	101,7	101,4
Income growth	%	99,1	106,0	103,3	102,4	102,6	102,4
Poverty	%	32,1	32,0	31,8	31,7	31,6	31,4

ductivity. Measures will be implemented to optimize crop areas by systematically increasing the sown areas of those crops that are most in demand in the EEA member states, drip irrigation systems are actively used; Further development of greenhouses; Use of advanced technologies for cultivation of crops, use of organic, mineral and organomineral fertilizers to increase the volume of agricultural exports; Increasing the efficiency of breeding and breeding work and artificial insemination of animals with the use of valuable genetic material.

**35** The priority areas of the construction industry in the next three years will include development of an institutional structure to ensure development of policies aimed at increasing affordability of seismically safe comfortable housing, while improving energy efficiency and reducing carbon emission buildings, capacity building in the field of management professionals, engineering, construction and innovative measures to ensure the reduction of energy consumption of buildings in 2020 by 30-40%.

**36** The state investments policy will allow for an increased volume of frequent investments up to 31% of GDP in 2020. Gross investments in the economy will increase to 37.4% of GDP in 2020, which will contribute to economic growth by an average of 4.5% in 2018-2020. It is forecasted

to increase the share of private consumption from 85.4% to GDP in 2016 to 86.8% in 2020, due to the increase in monetary incomes in nominal terms by 7.7% on average per year.

**37** Based on macroeconomic projections, social indicators in 2018-2020 will be as follows. The increase in the nominal average wage will increase by an average of 14.5% and in 2020 and will amount to 18,985 KGS. Increase in the nominal size of pensions is forecasted in 2018 by 7.9% and in 2020 it will amount to 5,999 KGS. The projected level of total unemployment will decrease and will be 7.1% by 2020 compared to 7.6% of the actual level in 2015. The poverty level by 2020 is projected to drop to 31.4% and will decrease by 0.7 percentage points compared to 2015.

## 2.2. MONETARY POLICIES

**38** The National Strategy for Sustainable Development jointly with the Medium Term Directions of Monetary Policy regulates the monetary policy of the National Bank of the Kyrgyz Republic. Within the latter, retention of inflation in the range of 5-7 percent in the medium term is defined as a quantitative benchmark for monetary policy.

**39** In 2016, 25 commercial banks and 324 branches of commercial banks operated in the Kyrgyz Republic.

<sup>7</sup> Approved at the meeting of the Coordination Council on Macroeconomic and Investment Policy on March 15, 2017.

**40** The indicator of net total capital of the banking sector used to calculate the economic standards set by the National Bank, according to preliminary data, in 2016 amounted to 29.2 billion KGS. The overall net capital adequacy ratio for the banking sector was 24.7%, exceeding the standard by 2 times (12,0 %).

**41** The total deposit base of the banking system increased by 3.5% since early 2016, and according to preliminary data, by the end of 2016 amounted to 106.4 billion KGS. The "loan portfolio" of the banking sector in 2016 amounted to 92.2 billion KGS. The bulk of the banks' loan portfolio is related to lending to agriculture, the trade sector and consumer lending. According to the data of commercial banks, the average weight in the loan portfolio is trade - 29.7%, agriculture - 21.3%, industry and consumer loans - 8.9% and 10.4%, respectively.

**42** In the structure of the loan portfolio for maturity, the main share was in medium-term loans from 1 to 3 years and amounted to 45.4% by the end of 2015, and to 32.1% by long-term loans (over 3 years).

**43** Interest rates of commercial banks on extended loans remain high, and the weighted average rate is 22.5% in national currency; in foreign currency is 13.8%<sup>8</sup>.

**44** In 2017, the National Bank intends to consolidate the results of work achieved after the transition to a monetary policy based on interest rate targeting. It is assumed that in the absence of shocks, inflation during 2017 will be at a level not exceeding the medium-term target of 5-7%, designated in the NSSD.

### 2.3. FISCAL POLICIES

**45** In 2016, all legislation in the budgetary sphere was consolidated into a single Budget Code. This Code was put into effect on January 1, 2017. The budget system includes the following budgets:

- 1) The national budget;
- 2) The budget of the Social Fund;
- 3) Budget of the Mandatory Medical Insurance Fund;
- 4) Local budgets.

The draft of the national budget is formed on the ba-

sis of the official forecast of the social and economic development of the Kyrgyz Republic, the Budget Resolution of the Jogorku Kenesh and the Main Directions of Fiscal Policy and the Budget Code. The main directions of fiscal policy for the medium-term period are approved by a government decree no later than July 1 of the year preceding the next fiscal year and submitted to the Jogorku Kenesh of the Kyrgyz Republic<sup>9</sup>.

**46** Forecast of economic indicators for 2016-2018 were is done on the basis of analysis of development trends for 2013-2015; Preservation of macroeconomic stability; Ensuring sustainable economic growth; NSDS; Plan of measures for 2016 for the implementation of the Program of Activities of the Government of the Kyrgyz Republic.

**47** The total revenue of the state budget for 2016 amounted to 129 879.8 million KGS or 92.5% of the planned target. In comparison with the previous year, total revenues increased by 1.2%, or by 1,586.9 million KGS, mainly due to the growth of tax revenues. Excluding Public Investment Programmes (PIP) grants and special funds, the total income plan was fulfilled by 94.0% and increased by 623.3 million KGS or 0.5% compared to the previous year.

**48** The total amount of financing from the national budget on the basis of the cash plan for 2016 was brought in the amount of 132 331.4 million KGS, or it was fulfilled by 94.7% with an updated plan of 139 802.8 million KGS. The actual cash expenditure was made for the amount of 131 262.4 million KGS, or 99.2% of the cash plan. In comparison with the same period of the previous year, the cash expenditure of the national budget increased by 16.3% or 18,400 million KGS.

**49** The volume of tax revenues for 2016 was 93,810 million KGS, or 92.5% of the plan. In comparison with last year, tax revenues increased by 9,154.6 million KGS, or by 10.8%.

**50** Non-tax revenues of the state budget for 2016 amounted to 26 788.6 million KGS or 95.3% of the plan. In comparison with last year, the fees decreased by 22.0%.

**51** Receipts of official grants amounted to 9,209.4 million KGS, compared to the previous year; grants fell by 99.3 million KGS.

8 Data from the website of the National Bank of the Kyrgyz Republic

9 Budget Code of the Kyrgyz Republic

**52** State and local taxes have been established in the Kyrgyz Republic, as well as special tax regimes.

**State-wide types of taxes include:**

- Income tax;
- Value added tax;
- Excise tax;
- Taxes for subsoil use;
- Sales tax.

**Local taxes include:**

- Land tax;
- Property tax (movable and immovable).

**Special tax regimes include:**

- A tax on the basis of a compulsory patent;
- Tax on the basis of a voluntary patent;
- A simplified taxation system based on a single tax;
- Taxes based on a tax contract;
- Tax regime in free economic zones;
- The tax regime in the Park of High Technologies.

**53** Tax benefits are provided to leasing companies, banking sector, construction sector, food and processing industries, exporters, grain and flour importing sector, agricultural products processing, agricultural commodity and service cooperatives, private cardiac surgery facilities and pre-school educational organizations, charitable organizations, societies of people with disabilities, institutions of the penal system, credit unions <sup>10</sup>.

**54** The largest tax burden falls on the industrial sector (22.5%), while in agriculture it is only 1.2%. This is due to the fact that this sector of the economy is exempt from taxes except for land and property taxes.

**55** The service sector has the largest share in the country's GDP structure. Tax revenues from this sector also constitute a significant share of tax revenue, but the tax burden in this sector is significantly inferior to the tax burden of the industry and amounts to 12.2%.

**56** Payments for the use of natural resources consist of fees for the use of natural resources, fees for environmental pollution and other negative impacts on nature. The payment for the use of natural resources is established for the use of natural resources within the established limits, for the over-limit use of natural resources and is paid to the state budget in accordance with the established procedure to be further used for environmental protection measures. The fee is charged for pollution of the environment - emissions, discharges of pollutants, waste disposal and other types of pollution and negative impact on nature. The payment for emissions, discharges of harmful substances, waste disposal is transferred by legal entities and individuals indisputably to special accounts of state extra-budgetary funds for nature protection. Since 2017, in connection with the adoption of the new Budget Code<sup>11</sup>, the sources of education of the National Fund for Nature Protection and Forestry Development will not be accumulated in special accounts, but will flow into the national budget. Financing of nature protection measures will be carried out through the national budget.

**57** The Government of the Kyrgyz Republic establishes rates and rates of payments for the use of natural resources, for pollution of the environment and for other negative environmental impacts as well as procedures for their collection. Payment for the use of nature does not release the users from the implementation of environmental protection measures, compensation for damage caused by violation of environmental legislation, and prosecution for the offense committed<sup>12</sup>. The methodology for determining fees for environmental pollution in the Kyrgyz Republic was approved by the Government of the Kyrgyz Republic dated September 19, 2011 No. 559.

**58** In the NSSD, the fiscal policy provides for measures to increase consistency in fiscal policy, its coherence with monetary and other types of state policy, transition to program budgeting, strengthen fiscal discipline, ensure maximum transparency of the budget process and the effectiveness of public procurement. Priority directions of the fiscal policy until 2017 in the PTSD are: (i) the creation of an effective and stable tax system; (ii) simplification and

<sup>11</sup> Budget Code of the Kyrgyz Republic of 16.05.16 № 59

<sup>12</sup> Law of the Kyrgyz Republic "On Environmental Protection" of June 16, 1999 No. 53.



improvement of tax and customs administration; (lii) increasing transparency, identifying and eliminating the conditions for corruption; (lv) adoption of fiscal measures to reduce pollution.

**59** The conceptual foundations of fiscal policy are formed and conducted within the framework of the Concept of Fiscal Policy in the Kyrgyz Republic for 2015-2020<sup>13</sup>, the main directions of which are:

- Improvement of the investment climate;
- Ensuring the completeness of tax collection;
- Modernization of tax and customs services;
- Improvement and automation of the tax reporting system, reduction of the number of reports and streamlining of the frequency of their submission;
- Identification and minimization of factors leading to the emergence of systemic corruption, its socio-economic roots, promoting law-abiding lifestyles, implementing the state's anti-corruption policy in the fiscal sphere.

## 2.4. TRADE AND EXPORT

**60** The foreign trade turnover for 2016 amounted to 5,463.7 million US dollars and compared to 2015 decreased by 1.4%. Exports amounted to 1,544.6 million US dollars (growth rate 5.1%) and imports to 3,919.1 million dollars (a decrease of 3.7%). In the structure of the trade turnover, exports accounted for 28.3%, and imports for 71.7%. The trade balance deficit in 2016 amounted to be 2374.4 million US dollars.

**61** Foreign trade relations of the Kyrgyz Republic with other states in are built on the basis of compliance with obligations arising from international treaties of the Kyrgyz Republic.

**62** In order to integrate into the world economy, the Kyrgyz Republic participates in international treaties on customs unions and free trade zones (based on the establishment of a single customs territory without the application of customs and tariff and non-tariff regulation of trade between the member countries of these unions and the participating countries). At the same time, the member countries of the customs unions establish a com-

mon customs tariff in relation to trade with third countries, unless otherwise stipulated by interstate customs agreements, while the countries participating in activities carried out in free trade zones retain national customs tariffs in trade with third countries<sup>14</sup>.

**63** The Kyrgyz Republic participates in several trade associations at the same time:

- World Trade Organization (WTO), since 1998<sup>15</sup>
- Framework agreement on trade cooperation of the member countries of the Economic Cooperation Organization, since 2001<sup>16</sup>
- CIS Free Trade Zone, since 2011<sup>17</sup>
- The Eurasian Economic Union (EAEU), since 2015.

**64** The accession of the Kyrgyz Republic to the WTO was accompanied by the liberalization of its trade policy. Legal and institutional documents regulating the country's trade regime was adopted in 1998 when the country joined the WTO. During the entire period of membership of the Kyrgyz Republic in the WTO, there have been cardinal changes, both in the geographical distribution of trade and in the foreign trade regime itself. Certain changes have also been made in the structure of commodity flows<sup>18</sup>.

**65** On August 12, 2015, the Agreement on the Accession of the Kyrgyz Republic to the Agreement on the EAEU of May 29, 2014 entered into force.

**66** All customs procedures were abolished on the Kyrgyz-Kazakh border, a single customs tariff, a single commodity nomenclature of external economic activity of the EAEU, unified product requirements established by the technical regulations of the Union and other norms and provisions of the EAEU Treaty entered into force on the territory of the Kyrgyz Republic. The national legislation has been

<sup>13</sup> Resolution of the Government of the KR dated July 7, 2015 No. 455.

<sup>14</sup> Law "On State Regulation of Foreign Trade Activity in the Kyrgyz Republic" of July 2, 1997 No. 41.

<sup>15</sup> The protocol on the accession of the Republic to the Agreement on the Establishment of WTO was ratified on November 17, 1998 and entered into force on December 20, 1998. The Kyrgyz Republic became the 133rd member of the WTO (Law of the Kyrgyz Republic No. 146 of November 17, 1998).

<sup>16</sup> Ratified by the Law of the KR of July 10, 2001 №70.

<sup>17</sup> The Free Trade Area Treaty, signed on October 18, 2011 in the city of St. Petersburg, was ratified and entered into force on December 9, 2013 (Law of the Kyrgyz Republic No. 212 of December 9, 2013).

<sup>18</sup> Report of the Government of the Kyrgyz Republic on the review of trade policy approved by the decree of the Government of the Kyrgyz Republic of October 23, 2013 No. 426.

brought into line with the Treaty on the EAEU. E.<sup>19</sup>

**67** On 18 November 2015, the decision of the Council of the EEC on the abolition of sanitary and phytosanitary control in the Kyrgyz-Kazakh section of the state border entered into force. However, veterinary control remains until a number of remaining measures are taken to bring the veterinary control system into line with the requirements of the EAEU legislation.

**68** Due to membership in the EAEU, the Kyrgyz Republic has simplified employment procedures and improved social living conditions for migrant workers and their families. Remittances from labor migrants for 11 months of 2016 increased by more than 18.5% (from 1.547 to 1.874 million dollars).

**69** 30 accredited laboratories and 9 certification bodies of the Kyrgyz Republic have been included in the Unified Register of the Unified Energy System of the Republic of Armenia, which issue documents, and they are equally recognized in the territory of the entire EAEU.

**70** To improve the trade and economic potential of the countries of the Union with third countries, the Union expands the scope of cooperation. On October 4, 2016, the Free Trade Agreement between the EEMP and Vietnam entered into force.

**71** Procedures have been initiated to harmonize negotiating positions with the WTO in order to minimize losses on the provision of compensation by the Kyrgyz side in connection with the increase of import duties and the adoption of the unified customs tariff of the EAEU (UCT).

**72** As of January 1, 2017, 15 technical regulations of the Customs Union (CU) (EAEU) have fully come into force, and 20 technical regulations of the EAEU operate on the territory of the Kyrgyz Republic along with other corresponding technical regulations of the country.

**73** At the end of 2016, the export of agricultural products subject to veterinary control has been authorized to the territory of the Russian Federation by 19 Kyrgyz processing enterprises and to the territory of Kazakhstan to 8 processing enterprises.

**74** Work is underway to form the Unified Market for Services of the EAEU.<sup>20</sup>

**75** On 27 January 2016, the Commission of the European Union entered into force on granting the user status of the GSP + scheme to the Kyrgyz Republic. As a result, Kyrgyzstan was able to duty-free supply of more than 6,000 commodity items to the EU markets, however, the requirements for safety, quality, packaging, and marking remain.

**76** The section on foreign economic policy of NSSD notes that foreign trade of the Kyrgyz Republic is characterized by a chronic excess of imports over exports, and this leads to serious macroeconomic consequences. Since 2006, the volume of foreign trade turnover of goods has exceeded the volume of GDP. In some years it exceeded 140%.

**77** To strengthen its export positions, the potential associated with Kyrgyzstan's membership in the WTO and Customs Union will be fully utilized. The growth of exports will be facilitated by the development of transport infrastructure, marketing and information support for domestic export-oriented enterprises, and the introduction of the "one-stop shop" principle when issuing permits. Therefore, the development of an export development strategy aimed at increasing the competitiveness of domestic producers in the external market and promoting the expansion of services exports is of particular importance for the country.

**78** In the PTSD, priority areas of foreign trade relations are: (i) development of the country's export potential; (ii) ensuring the negotiation process and procedures for accession of the Kyrgyz Republic to the Customs Union and Common Economic Space (CES); (iii) ensuring harmonization in the sphere of technical regulation of the legislation of the Kyrgyz Republic with the Customs Union documents.

**79** The National Strategy for the Development of Intellectual Property and Innovation in the Kyrgyz Republic for 2012-2016 was implemented, which included measures to improve the protection of intellectual property rights<sup>21</sup>.

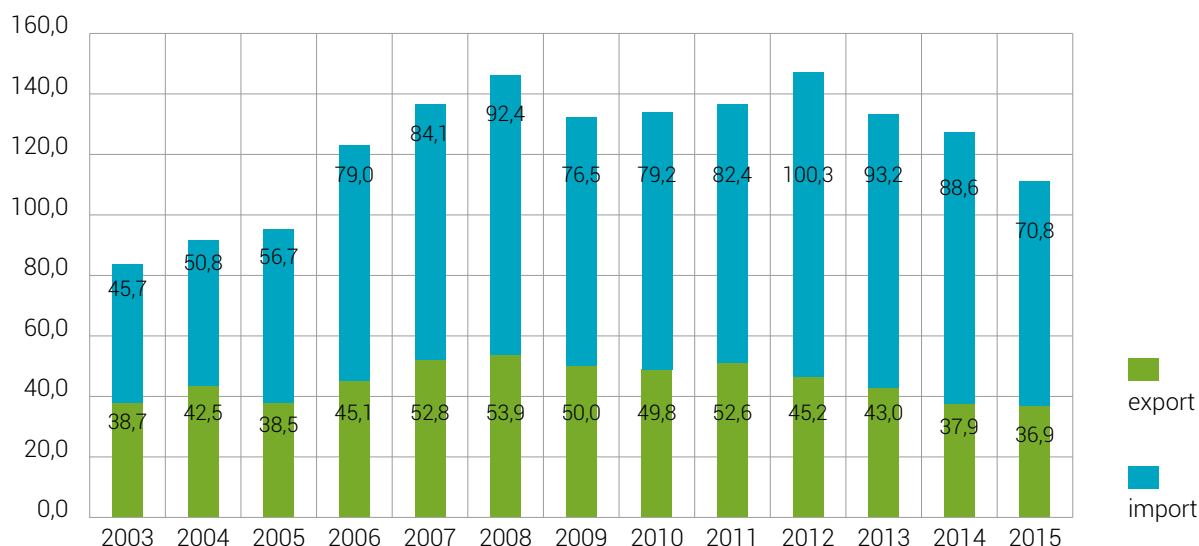
<sup>20</sup> "On the main results of the republic's integration into the EAEU in further steps", Ministry of Economy of the KR, January 23, 2017. Source: [http://mineconom.gov.kg/index.php?option=com\\_content&view=article&id=6986&catid=63&lang=ru](http://mineconom.gov.kg/index.php?option=com_content&view=article&id=6986&catid=63&lang=ru)

<sup>21</sup> Resolution of the Government of the KR of September 23, 2011 No. 593.

<sup>19</sup> 39 Laws of the Kyrgyz Republic, as well as 51 resolutions of the Government of the Kyrgyz Republic have been adopted.

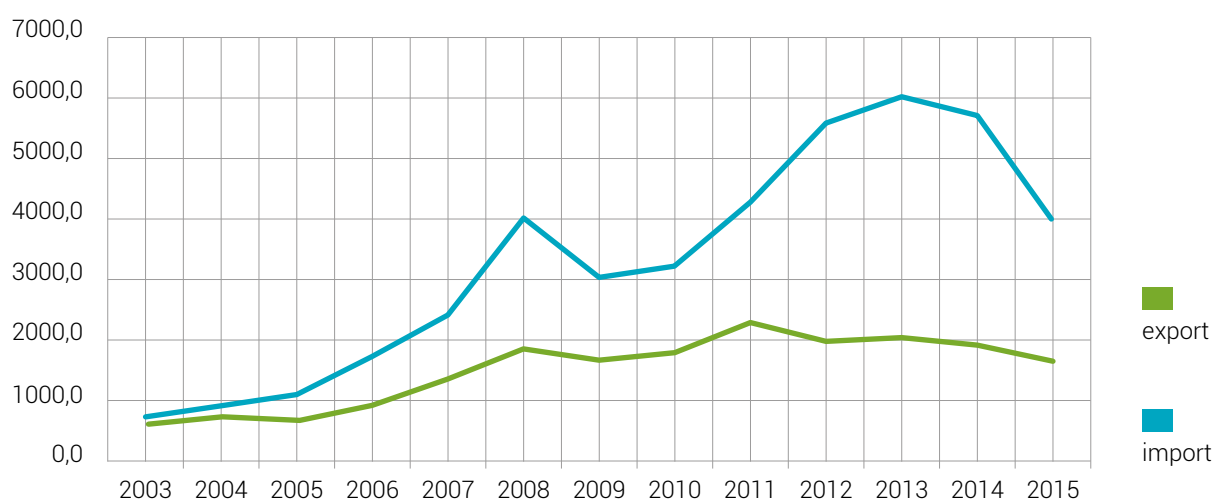
**Figure 1. Trade turnover to GDP, %**

Source: National Statistical Committee of the Kyrgyz Republic



**Figure 2. Export and import, in mln USD**

Source: National Statistical Committee of the Kyrgyz Republic



**80** B 80. In order to expand its export opportunities and increase the competitiveness of domestic producers in the foreign market, the Government of the Kyrgyz Republic's Export Development Plan for the Kyrgyz Republic for 2015-2017 has been developed and adopted, aimed at considering trade within a broader framework of its development and taking into account the issues of poverty reduction, Women's potential, environmental protection and other development issues.<sup>22</sup> The Plan identifies 6 priority sectors: tourism, textile-sewing, meat, fruit and vegetable, milk and dairy products, bottled water.

The tasks of the Plan are addressed within the framework of four directions:

- Access to trade information and promotion of exports
- Facilitation of trade procedures (trade facilitation)
- Support and development of quality infrastructure
- Access to financial resources

<sup>22</sup> Decree of the Government of the KR as of March 31, 2015 No. 174.

**81** The Concept of Development of the National Quality Infrastructure of the Kyrgyz Republic for the period up to 2020 was adopted with a view to improving the efficiency of the implementation of state policy in terms of increasing the competitiveness of Kyrgyzstan in the world market, the well-planned and effective optimization of the infrastructure for ensuring security and quality in general, reducing administrative and technical barriers to trade, harmonizing with the rules and recommendations of the WTO, and regional organizations <sup>23</sup>.

## 2.5. BUSINESS AND INVESTMENT CLIMATE

**82** In 2015, 2750 enterprises of the main circle (large enterprises) operated on the territory of the Kyrgyz Republic with 164,600 employees and 14,000 small and medium enterprises, of which 13,200 were small enterprises and 800 were medium-sized enterprises. More than 25% of operating enterprises operate in wholesale and retail trade; 16.2% in industry and 11.4% in professional, scientific and technical activities.

**83** The number of registered individual entrepreneurs as of January 1, 2016 amounted to 366.7 thousand people.

**84** On average for the years 2011-2015 the share of the gross added value produced by small and medium-sized businesses was about 40% of GDP. At the end of 2015, its volume amounted to 173,292 million KGS, or 40.3% of GDP.

**85** The number of people employed in the sphere of small and medium-sized business (excluding peasant and private farms) in 2015 amounted to 88.3 thousand people, or 3.7% of the total number of people employed in the economy.

**86** The average monthly salary of employees in small and medium-sized enterprises was steadily growing and in 2015 amounted to 9542 KGS per month. However, the wages of these employees remain, still, lower than the average for the republic (13483 KGS). Wages of workers in small and medium-sized enterprises in all regions except for the Naryn oblast (13,653 KGS) and the city of Bishkek (10,846 KGS) are lower than the average for small and medium-sized enterprises in the whole country.

**87** In 2015, the volume of foreign direct investment (excluding outflows) aimed at developing small and medium-sized enterprises (as well as in the whole country) increased 3.4 times as compared to 2014, and by 3.6 times as compared to 2011. In comparison with 2014, a significant increase in the volume of incoming foreign direct investment was noted both in small enterprises - 3.5 times, and in medium-sized enterprises - 3.4 times.

**88** Bulk amount of foreign direct investment (93.1%) was attracted to small and medium-sized enterprises in Bishkek.

**89** In 2015, small and medium-sized businesses reclaimed KGS 32691.1 million of investments in fixed assets, which was 2.7 times more than in 2014, and 3.7 times more than in 2011.

**90** The most prioritized investments to small and medium-sized businesses were housing construction, transport and storage of goods, supply (supply) with electricity, gas, steam and air-conditioned air.

**91** As a result of investment and construction activities in the country, the volume of use of investments in non-financial assets in 2011-2015 steadily increased and amounted to KGS 165.3 billion in 2015, an increase of 30.8% compared to 2014, which was 2.4 times increase as compared to 2011.

**92** The volume of investments in fixed assets in 2015 amounted to KGS 158.7 billion, which is 29.9% more than in 2014 and 2.4 times higher than in 2011.

**93** Within the period we analyze, in the structure of investment in fixed assets by type of investment, the main share (from 73% to 81%) aimed at constructing non-residential buildings and structures and for the purchase and installation of machinery and equipment. The share of investments aimed at the construction of residential buildings in 2015 compared to 2014 decreased by 3.1%, while it increased for the construction of non-residential buildings and structures, as well as the purchase and installation of machinery, equipment and tools.

**94** Growth in economic activity in the country largely depends on the inflow of foreign investment, which in 2015 amounted to 5,615 million US dollars (excluding outflows), which was 3.7% higher than in 2014 and by 13.5% higher than in 2011.

<sup>23</sup> Resolution of the Government of the KR of June 22, 2016 No. 346 "On the Concept of Development of the National Quality Infrastructure of the Kyrgyz Republic for the Period to 2020"

**95** The volume of incoming foreign direct investment (excluding outflows) in 2015 amounted to 1,573.3 million US dollars, which was 2.2 times more than in 2014 and 1.9 times more than in 2011.

**96** In the structure of foreign direct investment, as compared to 2014, there was a significant increase in investments directed to the shareholders' own capital (increase by 12.7 times), as well as loans received from foreign co-owners of enterprises (increase by 1.7 times), as compared to 2011, by 8.6 times and 3.2 times.

**97** The bulk of foreign direct investment (94.2%) was directed to manufacturing enterprises, financial intermediation and insurance, geological exploration, supply (supply) of electricity, gas, steam and air conditioning, as well as construction. At the same time, the volume of investments directed to manufacturing enterprises increased by 2.1 times, financial intermediation and insurance by 14.5 times, , enterprises supplying electricity, gas, steam and conditioned air by 3.1 times, construction by 5.3 times.

**98** The Kyrgyz Republic signed an agreement on avoidance of double taxation with 21 countries. It also signed an agreement on the protection of foreign investment with 27 countries.

**99** In the rating of investment attractiveness among 174 countries of the world, Kyrgyzstan occupies the 97th place. In the World Bank's ranking Doing Business 2016, Kyrgyzstan's position is 75th out of 190 countries. In the rating of the World Economic Forum, reflecting the country's competitiveness, Kyrgyzstan ranks 111 among 140 countries. At the end of 2015, the Kyrgyz Republic received Sovereign Credit Ratings "B2 stable" and "B" from international credit rating agencies Moody's Investors Service and Standard & Poor's.

**100** Investment policy in the Kyrgyz Republic is aimed at improving the investment climate and encouraging the attraction of domestic and foreign investment by providing a fair, equal legal regime to investors and guaranteeing the protection of the investments they have made to the economy of the Kyrgyz Republic. A fairly liberal investment legislation based on the most-favored-nation treatment principles has been created in the Kyrgyz Republic.

**101** The NSSD determines that the business environment should be oriented towards restoration and strengthening of a healthy investment climate in the country, debureaucratization of state regulation and provision of economic freedom to economic entities.

**102** Based on its foundational documents, the Government of the Kyrgyz Republic conducts purposeful work aimed at creating favorable conditions for doing business and improving the country's investment climate. The following focus areas of the Government should be noted: 1) introduction of new instruments for fiscal and administrative stimulation of the economy – the tax system is gradually shifting to the implementation of a stimulating function, and unnecessary, hindering administrative barriers are systematically removed; 2) introduction of new financial instruments aimed at increasing access to financial sources of entrepreneurs, with the creation of a system of affordable loans, guarantees, insurance; 3) ensuring protection of private property rights and safety of investors' investments.

**103** The NSSD and PTSD provide that in the Kyrgyz Republic, in the medium term, investment policy will gradually shift to the principles of rational use of environmental use. Reducing environment intensity will allow to link the two processes: (1) reduce resource intensity and environmental pollution; (2) simultaneously improve the quality of economic growth through modern technologies, low-waste and resource-saving industries, recycling of waste. Both these directions provide for a radical structural reorganization of the economy in favor of environmentally friendly and knowledge-intensive technologies.

**104** The PTSD makes provisions for the policy on regulating business environment to focus on the following priority areas: (i) new approaches in the system of assessing the regulatory impact in the development and adoption of management decisions, including those aimed at ensuring environmental safety; (ii) reducing the level of government intervention in business activities, with an emphasis on regulatory policies on the management of scarce resources and tightening the requirements of environmental legislation.

**105** The objective of the investment policy in the PTSD is to increase the attractiveness of the investment climate in the Kyrgyz Re-

public, including increase to 10 percent of environmentally-oriented investments in all newly launched investment projects. These investment projects are fixed in the NSSD.

**106** The Private Sector Development Program in the Kyrgyz Republic for 2015-2017 is being implemented inclusive of activities in the following areas:

- simplification of regulation in the customs and trade spheres;
- optimization of tax administration;
- reform of labor legislation;
- Reduction of excessive state interference in business;
- streamlining the product safety control system;
- Horizontal reforms.

**107** In order to improve the investment attractiveness of the country, a draft program for promoting direct investment in the Kyrgyz Republic for 2017-2019 has been developed and is currently being considered by the Government of the Kyrgyz Republic.

**108** Existing investment incentives and preferences are reflected in the Investor Guide on existing investment preferences in the Kyrgyz Republic and the Investment Stimulus Register.

**109** Legislatively approved were the mechanism of Public-Private Partnership (PPP) and the Program for the development of public-private partnership identified areas of its application such as:

- Transport (roads, bridges, railways, airports);
- Ecology and water supply (waste management, water supply and sewerage);
- Energy (central heating, street lighting, power distribution);
- Social sector (health, education, sports and tourism, culture);
- Informatization and governance (e-government, Internet distribution).

**110** In order to create favorable conditions for further implementation of public-private partnership mechanisms in the Kyrgyz Republic, the Government adopted the Public-Private Partnership Development Program in the Kyrgyz Republic for 2016-2021 in 2016, and the Public-Private

Partnership Council in the Kyrgyz Republic "in order to ensure coordination of activities to develop public-private partnership".

**111** Since the end of 2014, 10 PPP projects have been selected from the point of view of economic feasibility and social significance in the official Register of PPP projects. About 8 PPP projects are being developed in various sectors of the economy, such as health care, transport, and others.

**112** The country implements projects on drip irrigation, organic agriculture, and projects using resource-saving technologies such as building schools, village first-aid station (FAPs), hotel and restaurant complexes, as well as companies and enterprises engaged in the production of biogas plants, energy-efficient greenhouses, renewable energy equipment, waste processing, technologies for purification of water and air.

## 2.6. EDUCATION, SCIENCE AND INNOVATIONS

**113** About 1.5 million people study and work in the education sector of the Kyrgyz Republic, the number of employees in the sector of teachers, teachers, researchers of various qualifications and administrative staff is 102,798 people, which is 3.4% of the total number of able-bodied people of the country's population.

**114** The education system comprises 75,529 teachers, 3,500 engineering and pedagogical workers of organizations of primary vocational education, 6,700 teachers of secondary vocational education and 14,200 teaching staff of higher professional education. Out of the total number of faculty members, more than 7% have a Ph.D., and 28% are teachers.

**115** Kyrgyz education system has more than 860 public and alternative preschool organizations, covering about 80 thousand children of appropriate age, 2197 general education institutions with a contingent of 118 000 students, 122 secondary vocational training by-reference, which provide education and profession 64 thousand students and 52 higher educational institutions with 230 thousand students.

**116** More than 98% of children between 7 and 15 years old are enrolled in primary or secondary school (grades 1-9). The coverage of children with a general secondary education (7-17 years) is 93.4%, 12.1% of young people are enrolled in higher education, 5.4% in secondary vocational schools, and more than 9% of young children are enrolled in pre-school education.

**117** From 2010 to 2015, the total public expenditure on education increased from 12.8 to 30.2 billion KGS that is by more than 2.3 times. In relation to GDP, the state budget expenditures on education increased from 5.8% in 2010 to 7.1% in 2015. The growth in the volume of financing of education from the state budget in recent years is largely due to the increase in teachers' salaries in 2011 and 2015.

**118** The reform of the education and science system is a priority for the NSSD. The main priorities in the field of education are pre-school and school education as a function of the state.

**119** The main purpose of the development of the education system in the PTSD is to ensure, through the effective use of internal and external resources, development of personal and professional competence of the individual and provision of the state and society with the personnel necessary for the country's sustainable development.

**120** The most important goal for science is the reorientation of fundamental and applied scientific research into the issues relevant to sustainable development in Kyrgyzstan and the formation of a model for the transition of Kyrgyzstan to sustainable development.

**121** With a view to further ensuring the stable development of the education system, in conjunction with the implementation of consistent reforms, the Government of the Kyrgyz Republic of March 23, 2012 No. 201 approved:

- Concept of the development of education in the Kyrgyz Republic until 2020;
- Strategy for the development of education in the Kyrgyz Republic for 2012-2020;
- Action Plan for the implementation of the Strategy for the Development of Education in the Kyrgyz Republic for 2012-2014.

**122** A number of key documents of the education system include education for sustainable development: the Framework National Standard (curriculum)<sup>24</sup>, the Concept of Education for Sustainable Development, etc. Kyrgyzstan is also part of the global implementation of the UNECE Strategy for ESD and the United Nations Global Decade for Education for Sustainable Development. Being generally sufficient, the normative legal framework, nevertheless, weakly regulates the issues of interaction between education management bodies and educational organizations and SDGs, as well as the problems of inclusive education and a number of other issues.

**123** To promote ESD in the country in 2007, with the support of the Institute for Advanced Studies of the United Nations University in Japan, SAEPF has created the Regional Center for Expertise on ESD in the EECCA (Eastern Europe Caucasus Central Asia) region.

**124** The Ministry of Education and Science (MES) conducts a policy in the field of science to strengthen the scientific and technical potential and increase the contribution of science and technology to the solution of the social and economic tasks of the Kyrgyz Republic. However, the country does not have a unified system for the management of science - it is dispersed in three institutions: the MES, the National Academy of Sciences of the Kyrgyz Republic, Kyrgyzpatent.

**125** According to MES<sup>25</sup>, priority directions in the development of science in the Kyrgyz Republic for 2017-2020 are:

- Efficient use of natural resources;
- Food security
- Information Technology;
- Health and quality of life;
- New technologies in the energy sector;
- The development of tourism and transport system;
- Social Sciences and Humanities.

**126** The National Academy of Sciences adopted the Strategy of development of National Academy of Sciences on 2013-2025 in

<sup>24</sup> Adopted by the decision of the board of the Ministry of Education and Science of the Kyrgyz Republic in 2009.

<sup>25</sup> Official website of the Ministry of Education and Sciences. <http://edu.gov.kg/ru/science/>

2013. The main expected results of the implementation of the Strategy are:

- Creation of balanced, sustainably developing system of research and development in the National Academy of Sciences, provides enhanced reproduction of knowledge, competitive on the world market;
- Creation of an effective innovation system at the National Academy of Sciences that provides interaction with the domestic real sector of economy;
- Actively contribute to the technological modernization of strategic sectors of the economy and increase their competitiveness on the basis of the domestic advanced technology;

**127** Aiming at creating conditions for the effective use of intellectual property and innovation in economic, social and cultural development, the Government of the Kyrgyz Republic has approved the National Strategy for Intellectual Property and Innovation Development in the Kyrgyz Republic for 2012-2016 and an Action Plan for achieving the objectives of the National Intellectual Property and Innovation Development Strategy in the Kyrgyz Republic for 2012-2016. The strategy defined priority direction including modernization of economy through transfer of high technologies.<sup>26</sup>

## 2.7. LABOR MARKET AND EMPLOYMENT

**128** Labor market indicators are the level of economic activity, the level of employment and the unemployment rate of the population.

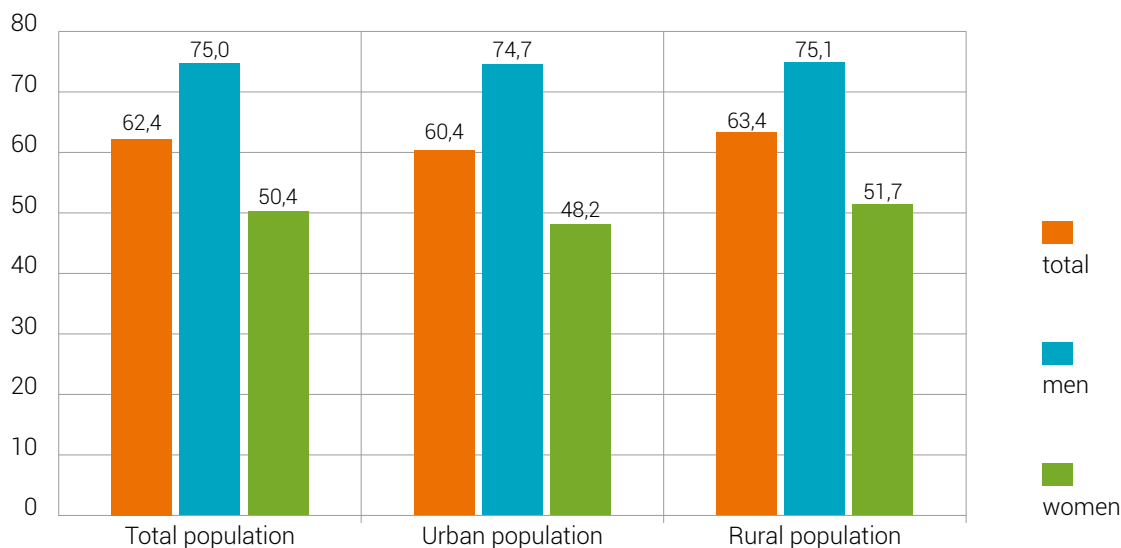
**129** In 2015 the number of economically active population of the country at the age of 15 years and older accounted for 2544,3 thousand people, of which 2352,1 thousand were employed and 192,2 thousand were unemployed. Economic activity rate has not changed in comparison with 2014 and amounted to 62.4% and the employment rate of 57.7%. 1043,3 thousand people or 41.4% of the total number of economically active persons were women and 58.6% or 1501,0 individuals were men. The level of economic activity in rural areas is higher by 2.9 percentage points than in urban areas.

**130** The level of economic activity of the working-age population is 69%, among men - 81%, among women - 57%.<sup>27</sup>

**131** The average annual number of the employed population in 2015 was 2352,1 thousand people and increased by 2,1% compared to 2014. According to the 2015 Labor Force Survey, the bulk of the employed, 66.0% (1,548.3 thousand people), live in rural areas and 34.0% (803.8 thousand

**Figure 3. Economically active population by gender and residence in %**

Source: National Statistical Committee of the Kyrgyz Republic



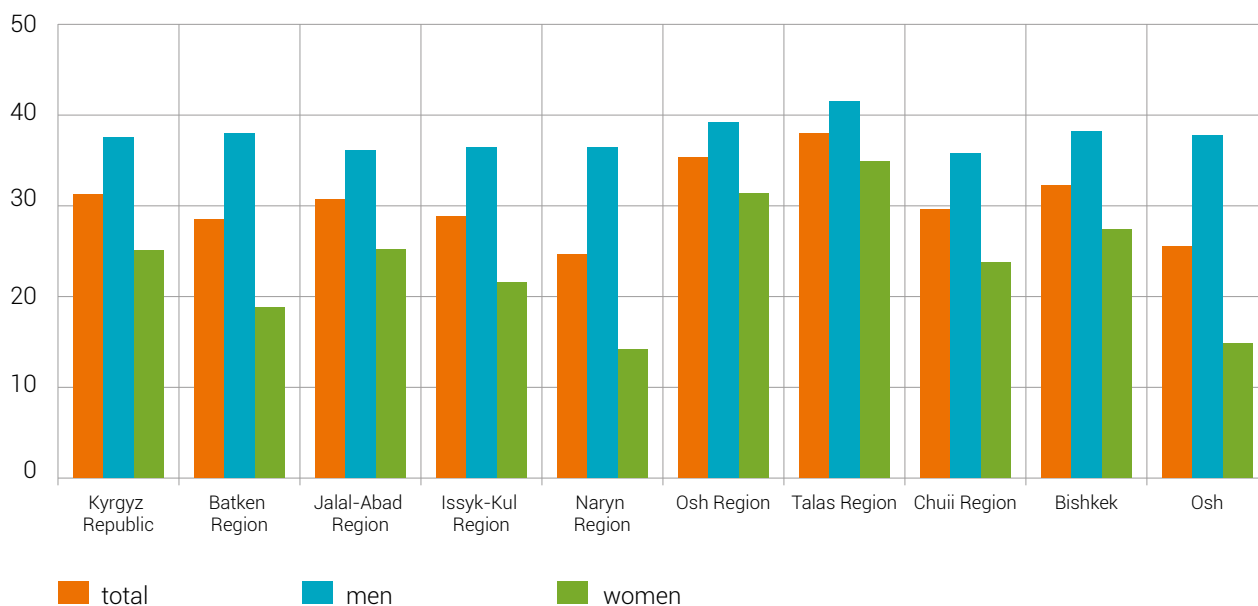
<sup>26</sup> Resolution of the Government of the Kyrgyz Republic dated September 23, 2011 No. 593 "On the National Strategy for the Development of Intellectual Property and Innovation in the Kyrgyz Republic for 2012-2016".

<sup>27</sup> Working age for men from 16 to 63 years, for women - from 16 to 58 years



**Figure 4. Economic activity by individuals 15 years old and older by territory**

Source: National Statistical Committee of the Kyrgyz Republic



people) - in urban areas. The employed population in able-bodied age accounted for 96.4% of all employed in the country.

**132** The employed population of the country has a high level of education, which is conditioned by the existing educational system: almost one in five of the employed population has higher or incomplete higher education, one in ten has secondary vocational training.

**133** The structure of employment in general is characterized by a clear dominance of agriculture, which accounts to 29.3% of all employed (in conjunction with forestry and fish farming). The second largest employer is wholesale and retail trade, repair of cars and motorcycles, which provide 15.5% of all employment in the country. The third employment sector is construction which employs 11.3% of people, and education which employs 8.2%, followed by the manufacturing industry - 7.4%, transport and storage - 6.9%. There were no changes in the distribution of the employed population in the three main sectors of the economy over the past five years, the share of employed in agriculture was 32%, and in the service sector - 48%.

**134** The share of employed women is highest in the services sector, especially in health and social services (84.1%), education (78.7%), and in the hotel and restaurant sector (59.4 %).

**135** A high proportion of men is observed in the following spheres of production: construction (95.6%), transport and storage of goods (94.8%), electricity (gas, steam and air) (88.2%), and extraction of minerals (80.6%).

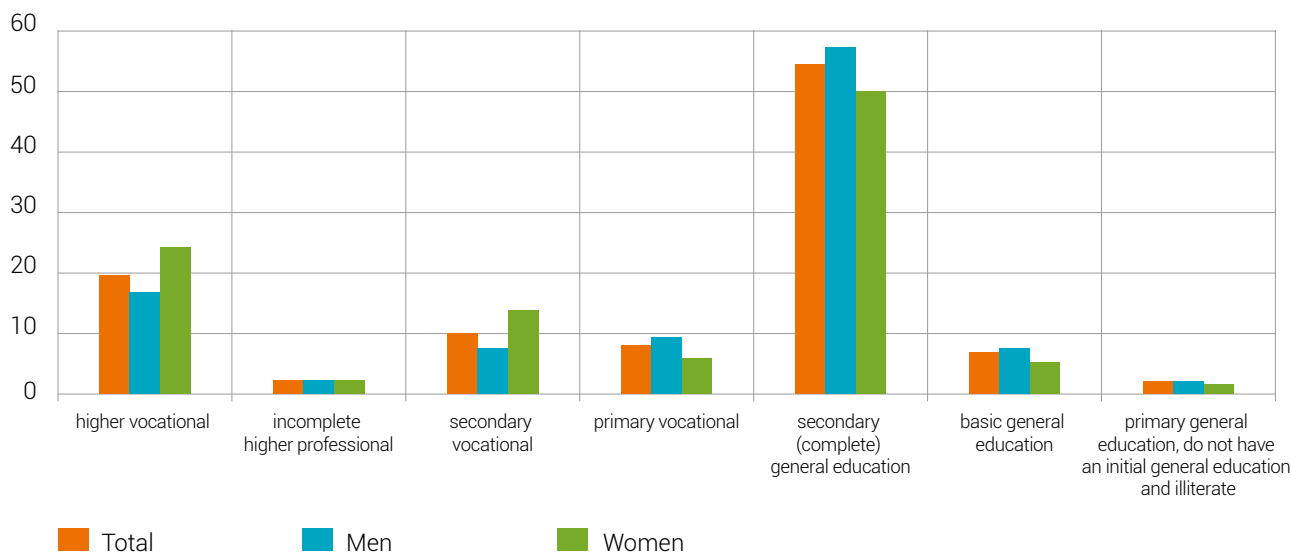
**136** The number of unemployed population in 2015 amounted to 192.2 thousand people, 63.0% of whom live in rural areas and 37.0% in urban settlements. In 2015, the level of total unemployment was 7.6%, in cities - 8.1%, in rural areas - 7.3%.

**137** In 2016, 5.4 thousand new jobs were created in enterprises, organizations and institutions of the country (5.3% of the total number of jobs), of which in small enterprises almost 2.6 thousand places (2, 5 %). The largest share of created jobs (94.7%) fell on the informal sector of the economy (individual entrepreneurs and peasant (farmer) economies), which created about 97 thousand new jobs. In the informal sector, a significant number of created jobs (34.6%) fell on agriculture and 22.0% on trade. At the same time, the workplaces created in these sectors are mostly of a seasonal or temporary nature.

**138** In accordance with the NSSD, the reasons for the continued high dynamics and scale of labor out-migration directly correlate with the situation on the national labor market and with the demographic changes in the structure of

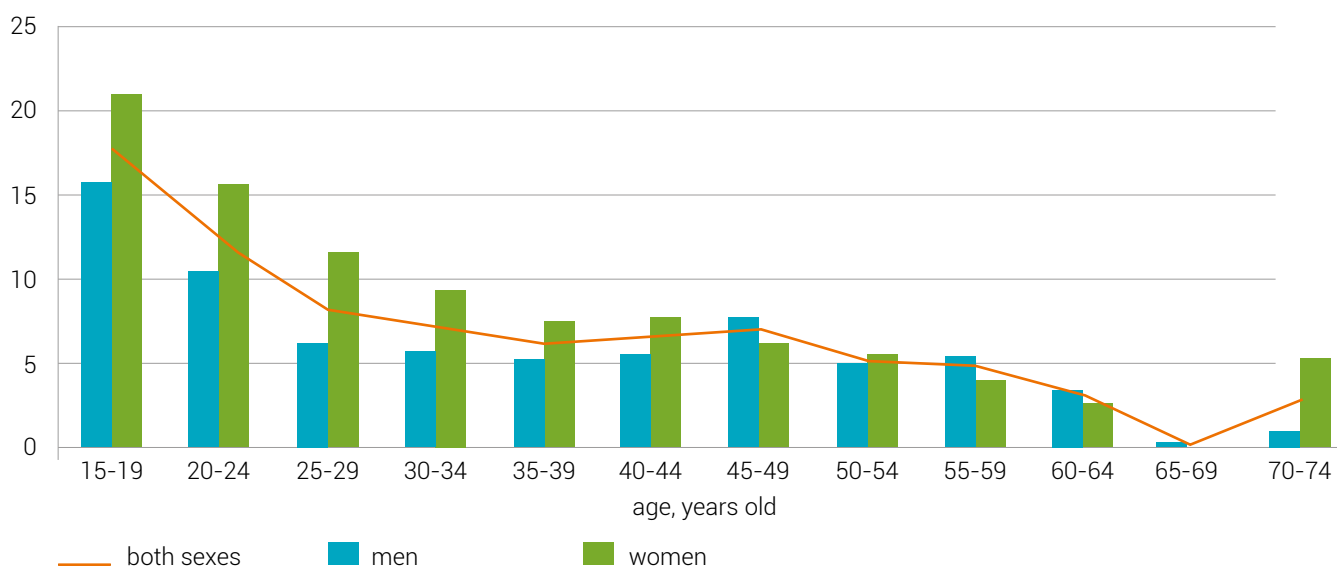
**Figure 5. Employment by education among individuals 15 y. o. and older**

Source: National Statistical Committee of the Kyrgyz Republic



**Figure 6. General unemployment by age and gender in % among individuals 15 y.o. and older**

Source: National Statistical Committee of the Kyrgyz Republic



the country's population. In recent years, the growth of the working-age population has more than doubled the growth in employment.

**139** Accordingly, the state regulations of the labor market and migration in Kyrgyzstan should be aimed at streamlining internal migration of the population and creating conditions for civilized development of external labor migration, and increasing the competitiveness of the economically active population. To this end, it is planned to create socio-economic prerequisites and conditions for accelerated development of the real sector of the economy, sufficient for the development of national and regional labor markets and the implementation

of active measures to promote employment; and to create adequate conditions for a civilized entry into the international labor market, by increasing the level of professional training of labor resources.

**140** The NSSD reflects the need to create a reliable system for working with migrant workers, which should ensure protection of their economic and social rights, as well as their opportunity to obtain education and build a career in the country of residence. At the "Rio + 20" United Nations Conference on Sustainable Development in 2012, Kyrgyzstan has expressed commitment to sustainable development in the long term perspective through the promotion of the priorities of "green

economy", which combines income growth and employment at the expense of external and internal "green" investments, aimed at the promotion of new technologies to improve energy and resource efficiency in both production and consumption, reducing emissions and pollution and to prevent the loss of biodiversity.

**141** The PTSD puts forward an objective of extending the range and quality of services for employment and increased labor capacity. The medium-term politics will focus on priority directions such as state support for employment; state support for labor migrants and specific for each of the priorities which include legislative measures to improve regulations for sustainable labor market development, to increase employment, build market-driven capacities, provide social protection for labor migrants and vulnerable categories of the population: women, youth and people with disabilities.

**142** Government of the Kyrgyz Republic has approved a program to promote employment and regulation of internal and external labor migration until 2020<sup>28</sup>. The purpose of the Program is creating conditions for productive employment, reduction in unemployment and an imbalance of supply and demand in the labor market by stepping up measures to promote employment, taking into account a more complete and efficient use of human resources, protection of the rights of Kyrgyz citizens engaged in labor activities abroad. These goals are conceptualized as based upon improving legislative frameworks, building competitive capacities, forecasting labor market demands, improving labor migration regulations, increasing public-private partnerships and improving the quality of services by employment agencies.

**The main directions of the program are:**

- Actively promoting employment of unemployed citizens and socially vulnerable segments of the population through improved regulatory and legal framework measures addressing specific needs of individual vulnerable groups;
- improving the quality of labor force and competitiveness of the labor market by improving the system of training, retraining and ad-

vanced training; developing social partnership for independent evaluation and certification of training of personnel;

- forecasting the demand for labor resources and developing labor market information system; determining the structure and quantity of training specialists in accordance with the needs of the country's economy;
- providing a full-fledged system for protecting the rights and interests of the citizens of the Kyrgyz Republic who work abroad;
- developing effective system of state regulation for labor migration by improving legislation, information and educational services to citizens of the Kyrgyz Republic wishing to work abroad;
- development of forms and methods for regulating labor migration, based on development of bilateral and multilateral interstate relations;
- expansion and strengthening of public-private partnership for organization of training, consultancy and protection of citizens of the Kyrgyz Republic who work abroad;
- improving the quality and efficiency of the employment services in providing employment and migration services.

## 2.8. MIGRATION

**143** After gaining independence of the country, about 990,000 people have emigrated from the Kyrgyz Republic during 1991-2016, of them 700 thousand people are currently labor migrants.<sup>29</sup>

**144** Majority of labor migrants works on the territory of the states-participants of the EAU. In early 2016, Russia hosted 540 thousand labor migrants from Kyrgyzstan, while in Kazakhstan there were 113 thousand of Kyrgyz labor migrants. In 2015, 14,000 Kyrgyz citizens worked in South Korea, 14,000 in Turkey and 30,000 in other countries of the far abroad. The share of young people (from

<sup>28</sup> Resolution of the Government of the KR of September 6, 2013 No. 485

<sup>29</sup> This section of the report is based upon the Review of Migration Situation in the Kyrgyz Republic Ссылка: <http://ssm.gov.kg/reports/view/2>

18 to 29 years) in the total number of migrants in these countries is approximately 47% of the total number. Men migrant workers are by 30% larger in numbers than women, although the share of the latter is noticeably increasing.

**145** In 2016, the total remittances of migrants for the year amounted to more than 1.9 billion US dollars, which amounted to about 30% of the GDP of the Kyrgyz Republic.

**146** The level of internal migration in the country can also pose a threat to the economic processes in the country. Stable flow of internal migrants in Chui oblast and Bishkek limits the growth of economic potential in less prosperous areas, further reducing the living standards of the remaining residents. Over the years of independence, according to official data of the National Statistical Committee, more than 1.5 million people have changed their permanent place of residence within the country. Such problems as lack of arable land in the south of the country, lack of individual housing, lack of drinking and irrigation water push people to move to the northern part of the country. Of particular importance is the problem of migration from border areas, which increases the likelihood of cross-border conflicts.

**147** In general, internal migration strengthens the uneven development of the regions and contributes to the growth of tensions in more prosperous areas as a result of the influx of internal migrants. Internal migration significantly increases the burden on the infrastructure of individual regions and creates risk of increasing the territorial expansion of neighboring states in view of the population leaving the border areas.

**148** The State Migration Service has begun work on the establishment of the Migration Code in the Kyrgyz Republic. At the same time, work is underway to prepare the Concept of the State Migration Policy of the Kyrgyz Republic until 2030. This document should define a system of views on the content, principles and main activities of the Kyrgyz Republic in the field of migration.

## 2.9. GENDER EQUALITY

**149** Achieving gender equality is recognized as one of the key development goals in

the Kyrgyz Republic. This is reflected in national legislation and in the country's efforts to fulfill international commitments to achieve gender equality. The principle of equal rights between men and women is included in the Constitution of the Kyrgyz Republic. Paragraph 4 of Article 16 of the Constitution of the Kyrgyz Republic states that in the Kyrgyz Republic men and women have equal rights and freedoms, equal opportunities for their implementation. The implementation of this constitutional provision is ensured by the Law of the Kyrgyz Republic "On State Guarantees of Equal Rights and Equal Opportunities for Men and Women". In 2012, the National Strategy of the Kyrgyz Republic was adopted to achieve gender equality until 2020, which defined development priorities such as women in the economy, education for girls and women, access to justice and political equality.

**150** On the international level, Kyrgyz Republic joined the Beijing Platform for Action, ratified the Convention on the Elimination of All Forms of Discrimination against Women and signed the Millennium Declaration. In order to enhance the role of women in ensuring peace and security, the Government of the Kyrgyz Republic in 2013 approved the National Action Plan for the implementation of UN Security Council Resolution 1325. Kyrgyzstan became the first country in Central Asia to adopt its own National Action Plan to implement this resolution and is working out the 7-point UN Action Plan on Equal Participation of Women in Policy-making Bodies and Their Role in Promoting Peace, Preventing and Resolving Conflicts, and Protecting Women and girls from violence.

**151** Since 2010 the policy of development of gender equality has received considerable attention. The country demonstrated an annual increase in international ratings, according to the annual assessments of the state of gender equality. Nevertheless, the country's indicators are still in the category below the average by such estimates as the United Nations Development Program's Gender Disparity Index, the Global Gender Gap Index of the World Economic Forum and the Social Watch Gender Equality Index. Kyrgyzstan invariably receives low scores on economic and political opportunities for women. The country's independence has reduced opportunities for economic activity among women, which limited their participation in decision-making processes. Violence against women,

including forced marriages and domestic violence, is still widespread.

**152** In the NSSD and the PTSD gender development and the enhancement of the role and status of women are one of the priorities of sustainable development. The proposed tasks and measures are fully in line with the goals and objectives defined in the National Strategy for Achieving Gender Equality until 2020. The PTSD includes 23 gender-sensitive indicators from 70 target indicators of human development. The gender policy of the PTSD focuses on priority areas such as improving the state regulation of gender equality, economic empowerment of women, creating a system of functional education to ensure equal opportunities for women and men, reducing gender discrimination and increasing women's access to justice and promoting gender parity in decision-making and the development of women's political participation.

## 2.10. HEALTH

**153** In the health sector for 2014, the Kyrgyz Republic demonstrates good health indicators of the population, access to medical care and financial protection of the population<sup>30</sup>. The average life expectancy for 2014 exceeded more prosperous former Soviet republics, including Russia. Infant and child (under five years) mortality rates have halved over the period from 1990 to 2010. More than 98% of births are received by qualified medical personnel, and the immunization rates of children exceeded 90%<sup>31</sup>.

**154** Different categories of population, regardless of income level, have almost identical indicators on the use of services at the inpatient and outpatient levels. In general, a relatively large proportion of public expenditure on health is directed to the poor<sup>32</sup>.

30 World Bank (2014). State expenditures Review: Healthcare. <http://documents.worldbank.org/curated/en/577101468188953388/text/88979-RUSSIAN-ESW-White-Policy-Note-PUBLIC-Box391469B-KG-PER-Health-final-RUS.txt>

31 World Bank (2014). State expenditures Review: Healthcare. <http://documents.worldbank.org/curated/en/577101468188953388/text/88979-RUSSIAN-ESW-White-Policy-Note-PUBLIC-Box391469B-KG-PER-Health-final-RUS.txt>

32 World Bank (2014). State expenditures Review: Healthcare. <http://documents.worldbank.org/curated/en/577101468188953388/text/88979-RUSSIAN-ESW-White-Policy-Note-PUBLIC-Box391469B-KG-PER-Health-final-RUS.txt>

**155** However, epidemiological transition and the growing incidence of non-communicable and chronic diseases complicate the situation. There is a problem of epidemiological transition from the prevalence of infectious diseases to non-infectious chronic diseases and, in particular, to cardiovascular diseases (CVD). As a result, the country's death rates attributable to the three main types of CVD - circulatory system diseases, coronary heart disease and cerebrovascular diseases - are the highest among the countries of Central Asia. In addition, the high incidence of tuberculosis and the growing incidence of HIV are additional causes of concern in the country.

**156** According to NSSD and PTSD, for the period 2013-2017 the state health policy is aimed at improving the quality of medical services aimed at reducing the level of diseases of the population, including those related to the influence of environmental factors. The key are the solution of problems in such priority areas as strengthening the capacity of the health system and creating the necessary conditions for protecting and strengthening the health of the population as a whole and each individual.

**157** The Healthcare Reform Program "Den-Sooluk" for 2012-2016 defined the strategic directions of the sector development. Taking into account the main directions identified in the NSSD, and in the continuation of the implementation of the "Den-Sooluk" Program, the Strategy for the Protection and Promotion of Public Health of the Kyrgyz Republic until 2020 (Health 2020<sup>33</sup>), aimed at creating the social, economic and managerial conditions necessary for effective prevention of various diseases, improving the quality and accessibility of health services in healthcare organizations through an intersectoral approach and respect for the principle of solidarity.

**158** Within the framework of the above-mentioned programs, the Government of the Kyrgyz Republic has undertaken to implement reforms to finance and manage the healthcare system of the republic, improve the quality of medical services. The issues of improving the quality of services in the healthcare system are closely related to the level of the material and technical base, the

33 Decree of the Government of the Kyrgyz Republic of June 4, 2014 No. 306.

development of infrastructure and the availability of modern equipment in the health sector. In this regard, to determine the priority areas and investment support for the industry, the Investment Program for Healthcare for 2016-2025 was developed. The purpose of this program is to determine the priority directions of the required investments in the health sector of the Kyrgyz Republic for the period 2016-2025 to improve the quality of health services, protect and promote the health of the country's population.

### 3. STRATEGIC ECONOMIC SECTORS IN THE KYRGYZ REPUBLIC

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#### 3.1. AGRICULTURE

**159** As of January 1, 2017, more than 415,000 registered and active economic entities were operating in the fields of agriculture, forestry and fishery. Among them, 312 thousand or 75.3% of the total number were peasant (farm) farms, more than 100 thousand subjects, or 24.6% were individual entrepreneurs engaged in agricultural production. A significant number of such economic entities were located in the Osh region (111.5 thousand or 26.8% of) the total number, Jalal-Abad (96.2 thousand or 23.1%) and Chui oblast (63.9 thousand or 15.4%).

**160** The share of the gross added value of agricultural, forestry and fishery products in the gross domestic product was 13.2% in 2016, which was 0.9% less than in 2015 and 3.4% than in 2011.

**161** According to the statistics of the last 5 years, crop production is the main share in the structure of agriculture in Kyrgyzstan. In the total volume of gross output of agriculture, forestry and fisheries, crop production accounted for 50.0%, livestock - 47.7%, forestry and fisheries - 0.2%, agricultural services - 2.1% in 2016.

**162** The structure of sown areas is one of the important indicators of the agricultural production effectiveness. In 2016, the total sown area of agricultural crops totaled 1,192.4 thousand hectares nationwide, and increased by 6.4 thousand hectares, or by 0.5% compared to the previous year, and by 26.7% thousand hectares or 2.3%, as compared to 2012. Herewith, a significant part of the sown areas - 559.5 thousand hectares or 46.9% - was sown with grain crops (without leguminous plants, rice and buckwheat), and only 354.9 thousand ha or 29.8% - with fodder crops, 82.2 thousand hectares or 6.9% - potatoes, 51.5 thousand hectares or 4.3% - vegetable crops. Based on the

indicators it can be seen that the structure is not perfect for the day, and does not correspond to the volume of the required forage reserve for the corresponding livestock, as compared with 1990, forage crops accounted for more than 49% in the structure of sown areas for that period that shows the relationship of sown areas with livestock and poultry in the Republic. Currently, farmers are using the arable lands inexpediently and irrationally. According to the data, cereals are not very profitable and do not contribute to anaerobic increase in soil fertility in comparison with vegetable crops. However, peasant farms have to grow mainly cereals, as these crops are undemanding during the growing season, and the farms do not have enough agricultural machinery, highly productive seeds, and fertilizers, relevant knowledge to cultivate tilled and profitable crops (price priority), and the mechanism of obtaining preferential loans and leasing of equipment is not sufficiently developed.

**163** The agricultural sector is based on private ownership, where more than 90% of agricultural output is produced by small landowners. More than 50% of the rural population in the Republic is the owner of arable lands, the land allotment of land users in 2016 averaged 1.6 hectares of irrigated arable land. Wherefore, a small commodity in production of agricultural products has been observed. This is the result of the land-agrarian reform leading to more than 312 thousand of peasant farms with small land plots in the country as of January 1, 2016. This, in its turn, does not allow using advanced technologies and technique in its plots, it hinders large investments in agricultural production. However, the "one village - one product" principle could be applied for the effective management of the agricultural sector, where one crop was grown on small land plots, which was sown with the seeds of one reproduction observing an integrated cultivation technology. The application of such principle would allow forecasting harvesting of a certain volume and quality. For today, agricultural producers' income is not analyzed and forecasted, and the recommendations to grow one or another of the crops for farmers, taking into account the zone of farming in order to increase the yield of agricultural crops are not developed.

**164** The material and technical resources of the Republic's agriculture does not correspond to the regulatory data of the tech-

nological crop growing, whereas 24.7 tractors accounted for 1,000 hectares of arable land on average in the Republic in 1990, then in the last years it accounts for 22.6 tractors on average. The positions by other agricultural equipment and machines are similar: for example, if in 1990, 3.4 cultivators accounted for 1,000 hectares of arable land, then in the last years, it accounted for 1.7 cultivators on average, 4.1 seeders accounted for 1,000 hectares of arable land in 1990, since in the last years it accounted for 2.1 seeders on average. Thus, the load on the existing agricultural machinery is high, which is confirmed by the low crop yield. Due to the lack of agricultural machinery and equipment in sufficient quantity, agricultural producers have to apply simplified technologies of cropping that leads to a decrease in soil fertility and yield, and also influences the spread of pests, diseases of crops and weeds. In this connection, differences in crop yields over the past five years have been observed. In addition, the shortage in the necessary amount of agricultural machinery, the high cost of fuels and lubricants, also do not allow the full use of the available arable land, as a result of which large areas of arable land remain untreated. So, if the area of unused arable lands nationwide was 38 thousand hectares in the 1990s, then by 2016 it increased by 44 thousand hectares and amounted to 82 thousand hectares.

**165** The main directions of animal husbandry are the breeding of dairy and meat cattle, sheep and goats, horses, poultry. The analysis of this branch of agriculture is as follows: in 2016, farms of all categories produced 212.4 thousand tons of meat that is 10.5% more than in 2012. Of the total volume of meat produced, 48.4% accounted for beef; 29.2% - mutton; 10.9% - horse meat; 7.7% -pork; 3.7% for poultry meat and 0.1% for rabbit meat. At the end of 2016, farms of all categories kept 1,527.8 thousand cattle that is 11.7%, or 159.9 thousand more than at the end of 2012.

**166** Due to the increase in the number of cows, the production of milk has increased over the past five years. However, the average annual milk yield per cow was 1,978 kg in 2016 that is 45 kg less than in 2012, whereas the average annual yield from one cow was 2,438 kg in 1990 that is 460 kg less in comparison with 1990. The main reason for decrease in milk yield is changes in the

diet of cows and the lack of selecting work on the distribution of high-breed cattle.<sup>34</sup>

**167** Of the total area of the territory of the Kyrgyz Republic, the agricultural production uses 10.6 million hectares (53.2%) as of 01.01.2016. The main part of agricultural lands is represented by pastures - 9.1 million hectares (45.7%). Arable land accounts only for 1.3 million hectares (6.5%), including irrigated lands - 0.9 million hectares (4.5%).

**168** Agriculture is the main consumer of fresh water. Agricultural production, based on irrigated agriculture, consumes the lion's share of water (93%) of the total available water reserves in Kyrgyzstan<sup>35</sup>. A significant part of the water withdrawn in the Republic is lost when used. The losses are caused by unsatisfactory technical condition of irrigation and water distribution systems, equipment wear, and use of imperfect irrigation methods. Up to 90% of the irrigated lands in the country use the furrow irrigation method when cultivated, which leads to inefficient use of water. In order to improve the water use situation, it is necessary to build water-saving irrigation tanks (reservoirs), to create a network of seasonal, decadal and daily water reservoirs, to introduce innovative technologies for water resources management.

**169** According to the Program for Pasture Development in the Kyrgyz Republic for 2012-2015, the total area of pastures in Kyrgyzstan is 9.147 million hectares for the whole of Kyrgyzstan. By seasonality, pastures are divided into winter, autumn-spring, and summer<sup>36</sup>. Pasture areas around the settlements are used most intensively, as most private farmers cannot drive their cattle to the far summer pastures due to the lack of transportation facilities and financial opportunities. Excessive burden on pastures and undergrazing of other pastures lead to deterioration of pasture grass, destruction of sod of pasture plants and mechanical structure of soil and erosion. According to the State Design Institute for Land Management "Kyrgyzgiprozem", a significant area of pastures (about 25%) is medium and severely degraded.

34 Ministry of Agriculture and Amelioration of the Kyrgyz Republic. "On Agriculture of the Kyrgyz Republic". A source: <http://cac-program.org/files/16scm/kyrgyzstan.pdf>

35 Source: Decree of Parliament of KR dated 18 December 2013 № 3694-V

36 Decree of the Government of KR dated 10.02.2012. No. 89, Program for Pasture Development in the Kyrgyz Republic for 2012-2015

**170** The analysis of data on pasture yields obtained from various sources (State Design Institute for Land Management "Kyrgyzgiprozem", the Kyrgyz State Scientific-Research Institute for Livestock and Pasture Management, the National Academy of Sciences of the Kyrgyz Republic) shows that if the productivity of summer pastures in the early 1970s of the last century was 8.6 centners per hectare dry weight, so in the 1990s it was 5.7 centners per hectare, and according to the data of 2004, the average yield of winter pastures was 2.7 centners per hectare dry weight. Accordingly, the productivity of summer and winter pastures has decreased by 3 times over the past 50 years. Overuse of pastures has led to a decrease in their productivity resulting in the loss of 11.5 million tons of natural fodder annually.

**171** The increase in the number of cattle and deterioration of natural fodder lands have led to an excessive burden on pastures. If the load per hectare in nearby pastures was 1.18 conventional sheep stock and 0.24 conventional cattle stock in 2003, then in 2010 it was 1.43 and 0.28, respectively that 1.5-2 times exceeds the environmentally sound standards. The load on some nearby pastures (especially in the southern regions) sometimes exceeds the norm by 3-4 times.

**172** Development of the agrarian sector as a whole requires drawing up of the measures to effective preparation of the structure of agricultural crops' sown areas, to increase the areas of exported crops and livestock products by applying new processing technologies, and to strengthen development of the breeding and seed base aimed at development of agricultural cooperation of small farmers' labour, improving the water use system, introducing new methods and approaches in the use and improvement of pastures for preservation of ecological integrity of pasture ecosystems in the environment.

**173** At the same time, it is required effective specialization of the regions of the country, taking into account the zone of agriculture in production of a particular type of agricultural products and the natural and climatic conditions of the region.

**174** The NSSD defines the main objectives for the agricultural sector as to increase the productivity of agriculture, competitiveness and product quality, and to provide the country with food



in the required quantities. The main directions of the sector are the following:

- Improving of the management system in the agricultural sector;
- Improving the quality and range of technical services, as well as promoting technological modernization of agricultural production;
- Creating conditions for the development of cooperatives;
- Creating of a modern market infrastructure for the agricultural sector;
- Increasing production and export through the export-oriented sectors of the industry;
- Enhancing the processing industry;
- Improving land use efficiency.

**175** The NSSD includes 24 investment projects in the agricultural sector, of which 8 projects have already been completed, and 7 are being implemented. The total cost of completed projects is 36,950 thousand US dollars. 5 projects are aimed at ensuring food security and increasing the competitiveness of agricultural products.

**176** The development of organic agriculture in Kyrgyzstan dates back to 2004 with the initiative to grow organic cotton in the city of Jalal-Abad in the Jalal-Abad region. During this time, 15 thousand hectares of agricultural land, 2.8 thousand hectares of crops, 1200 farms, as organic lands were certified. Umbrella organization of organic movement in agriculture of the republic is the Federation of Organic Movement of Kyrgyzstan, founded in 2012<sup>37</sup>.

**177** Drip irrigation system is gradually introduced in the country. In 2016, drip irrigation systems (hereinafter - DIS) were introduced by 482 economic entities to be used in an area of 1200.1 hectares. As of January 1, 2017, the total number of economic entities that implemented the DIS was 623, and the area of use of the RMS was 1815.2 hectares. There are now more 141 business entities more than in 2016.

**178** Greenhouse activities are also being developed among farms. In 2016, 706 hot-houses were built in the area of 91.5 hectares. As of January 1, 2017, the total number of greenhouses built by economic entities amounted to 1,448, with a total area of 137.1 hectares. Growth is observed at 50% rate compared to the previous year.

**179** As of the end of 2016, within the framework of the "Financing of Agriculture-4"<sup>38</sup> project, commercial banks issued loans to 13,246 economic entities in the amount of 4,832.5 million KGS, including a pledge of 4802.2 million KGS to 12,903 economic entities. 30.3 million KGS were issued without pledge to 343 economic entities. Of them 528.7 million KGS were given for plant growing, 3778.3 million KGS were given for livestock raising and 525.5 million KGS were given for agro processing.

## 3.2. INDUSTRY

**180** Contemporary industry in the Kyrgyz Republic is comprised of mining industry, manufacturing and processing, and electric energy. A total of 17 sub-sectors comprise industry of which extraction of minerals, processing industries (13 branches), supply with electricity, gas, steam and air conditioning, and water supply, purification, waste treatment and recycling. The largest is the manufacturing industry, the share of which is over 80%.

**181** Five are economic and tax-producing and include four in the manufacturing sector. These include production of basic metals and finished metal products; food products (including beverages) and tobacco products; textile production, clothing and footwear, leather and other leather products; production of rubber and plastic products, other non-metallic mineral products, and provision (supply) with electricity, gas and steam. In aggregate, these industries produce over 90% of industrial output.

**182** In 2015, industry sector included 1,622 enterprises and employed more than 129,000 employees.<sup>39</sup> The sector is characterized by a lack of a great number of large industrial productions, which accounted for only 70 enterprises in 2015. At the same time, the volume of production of one gold mining enterprise "Kumtor" was 43.5% from the total volume of industrial production in 2015. The number of enterprises reported under Form No. 4-OC "Report on Current Environmental

37 Source: [www.agroprod.kg/documents/proekt0404164.doc](http://www.agroprod.kg/documents/proekt0404164.doc)

38 Resolution of the Government of the KR of January 26, 2016 No. 25

39 Resolution of the Government of the KR of March 14, 2013 No. 133 "On approval of the Program for the Development of Manufacturing Industry of the Kyrgyz Republic for 2013-2015

Expenditures” for 2016 totaled 417, among them - 225 industrial enterprises.

**183** In 2016 GDP amounted to 458,027.4 million KGS, (103.8% in 2015), while processing industries (manufacturing) amounted to 160,484.3 million KGS, (105.4% in 2015).

**184** The main goal of the PTSD is to increase the capacity of manufacturing enterprises by 20% through the introduction of resource-saving technologies by reducing the energy costs of the industry and creating a mechanism to stimulate the introduction of resource-saving technologies, rational use of local labor resources and minimizing the impact on the environment.

**185** The objectives of the PTSD are: (i) raising awareness of resource-saving technologies in the manufacturing sector, (ii) developing standardized guidelines for improving energy efficiency in production, (iii) analyzing and comparing the resource efficiency of similar industries in other countries, (iv) creating an industry platform for discussion and exchange of experience on resource efficiency issues, (v) information campaigns on the benefits of introducing energy-efficient and environmentally friendly industries.

**186** The next priority area is to increase the export potential of the manufacturing industry. To further promote the export of the sewing industry, the Government of the Kyrgyz Republic intends to establish a Technopolis. The increase in export potential is planned through: (i) the creation of a single logistics center in Technopolis, both for the supply of finished products and for the import of raw materials; (ii) development of the Strategy for promotion and protection of the brand "Made in Kyrgyzstan"; (iii) the formation of a flexible policy of differentiated customs payments for raw materials and finished products.

**187** In order to develop the export potential of production of building materials and active promotion of products on the territory of the EAEU countries, the PTSD provides for: (i) development and adoption of legislative acts and protocols for the harmonization of technical regulations for the safety of building materials with the requirements of the EAEU technical regulations; (ii) conversion to an alternative type of fuel for the cement production (Kant Cement Plant).

**188** With a view to expanding export opportunities and increasing the competitiveness of domestic producers in the external market, the Kyrgyz Republic's Export Development Programs for 2015-2017<sup>40</sup> and for the development of the private sector for 2015-2017 were adopted, as well as the Concept for the Development of the National Quality Infrastructure of the Kyrgyz Republic for the period until 2020<sup>41</sup>.

### 3.3. ENERGY

**189** One of the economic priorities for the development of Kyrgyzstan is the energy sector. The Kyrgyz Republic has about 30% of the hydropower resources of the entire Central Asian region. The technological hydropower potential is estimated at 142 billion kWh / year, and the economic or production potential is 60 billion kWh. Hydropower provides more than 90% of domestic electricity consumption. The total design capacity of the power plants is 3,640 MW, of which hydroelectric power is produced up to 79.9%, thermal stations up to 19.7, and 12 small Hydroelectric Power Stations (HEPS) of up to 0.4%.

**190** The Kyrgyz energy system is part of the United Energy System of Central Asia (UESCA) and operates in parallel with the power systems of Uzbekistan, Kazakhstan and Tajikistan. Development of hydroelectric power is one of economic priorities in Kyrgyzstan.

**191** The share of the electricity sector, as part of the real sector of the economy of the Kyrgyz Republic, accounts for about 5.5% of GDP, 16% of gross industrial output. Kyrgyzstan also exports 2-2.5 billion kWh / year to China, Kazakhstan and Uzbekistan.

**192** 98% of the Kyrgyz population has access to electricity, with the exception of remote mountain areas, where, in the main, there are local temporary dwellings for grazing. Since there are no power lines in such areas, it is possible to connect an autonomous power supply from small and micro hydroelectric power stations.

40 Resolution of the Government of the KR dated March 18, 2015 No. 129 "On approval of the Government of the Kyrgyz Republic's Program for the development of the private sector in the Kyrgyz Republic for 2015-2017"

41 Resolution of the Government of the Kyrgyz Republic of June 22, 2016 No. 346 "On the Concept of the Development of the National Quality Infrastructure of the Kyrgyz Republic for the Period to 2020".

**193** Over the past 10 years there has been a decrease in electricity generation at HEPSSs. With the increasing growth rate of consumption, this has led to the creation of a power shortage. The decrease in electricity production was due to a decrease in water and energy resources due to the small volume of water inflow into the Toktogul reservoir and the low rate of commissioning of new capacities (in the last ten years only 1 aggregate for 120 MW of Kambarata HEPSS-2 was built and put into operation).

**194** Electricity losses in the Joint-Stock Company "National Electric Network of Kyrgyzstan" (JSC NESK) through high voltage networks were maintained up to 6.03% in 2014 and up to 5.41% in 2015, caused by a high coefficient of electrical network wear, exceeding the service life of transformers in substations, measuring instruments and electricity metering. The latter was also the cause of accidents and outages when the load increases, especially in the autumn-winter heating season.

**195** Heat supply in the country is carried out centrally in 4 cities: Bishkek is supplied with 85% of the residential area, in Osh - 35-40%, in Kyzyl-Kiya - 60%, in Karakol - 26%. Decentralized heat supply is provided by 133 boiler houses with a consumption of 62.2 million kWh per year. The main consumers are the population and state budget-sponsored organizations: schools, hospitals, universities, etc. In recent years, there has been a heat deficit (250-30 Gcal / hour) in the district heating system, especially in Bishkek, which is associated with high consumption growth rates (10-20 Gcal / hour per year) and the connection of new consumers to heat networks.

**196** As the indicator of economic security and sustainable development shows, the economy of the Kyrgyz Republic is energy-intensive, so the indicator of the energy intensity of GDP is -1.1 Ton of oil equivalent (toe) / 1000 US dollars, which is 4 times higher than the world average.

**197** The new Medium-term tariff policy for electricity and heat for 2014-2017, which provides for a gradual increase in tariffs to the level of full cost coverage, taking into account inflation and electricity imports, has now made it possible to ensure the sustainability of energy supply in conditions of electricity shortage. The increase in tariffs

stimulated consumers to efficient and rational use of electricity, as a result. For the first time in recent years, it was possible to reduce the average daily electricity consumption by more than 10%.

**198** In the future, energy production using organic fuels (coal, natural gas, fuel oil, diesel fuel) may face a number of intractable economic, transport and environmental problems. The development of renewable energy sources is a priority of the Government of the Kyrgyz Republic and in this direction the tasks are set to increase the share of renewable energy sources in the country's energy balance and develop small hydropower. Currently, the practical use of renewable energy is insignificant and it is only 1.07% in the country's total energy balance.

**199** For the development of small hydropower, the Concept for the Development of Small Hydropower of the Kyrgyz Republic until 2017 calls for bringing the share of renewable energy sources in total energy consumption to 1.5% by 2017 through state support and the creation of favorable conditions for attracting investments in the construction of small hydroelectric power plants<sup>42</sup>. The main barriers to large-scale development of small hydropower are high initial capital costs and a long payback period.

**200** The Government is developing a national program for the development of small hydropower, taking into account the interests and capabilities of state energy companies. However, the main barriers to large-scale development of small hydropower are initial high capital costs and a long payback period.

**201** There are favorable conditions for development of alternative sources of energy such as solar energy and biogas technologies, as well as using wind power, small streams and solar photovoltaic power plants.

**202** The most technically prepared for the widespread practical use are the development of heat supply through solar energy and biogas technologies, and electricity supply based on the use of wind energy, small watercourses and solar photovoltaic stations.

**203** About 110 thousand square meters have been installed throughout the country.

<sup>42</sup> Resolution of the Government of the KR of July 20, 2015 No. 507.

Solar installations are used in various industrial and agricultural facilities, as well as in housing and communal services and households. No more than 15-20% of the installations are actually in use.<sup>43</sup>

**204** According to the NSSD, the development of the hydropower sector, the share of which in the total amount of energy resources is 52.6%, has been identified as a priority in the social and economic development of the country, both for the medium term and for the long term.

**205** In accordance with the PTSD and according to expert estimates, in the medium term, with the start of the operation of new production facilities in the sectors of the economy and taking into account the dynamics of the growth of the GDP's electrical capacity, the generation capacity deficit may amount to about 1,500 million kWh of electricity. In these conditions, one of the most important factors of energy saving is the implementation of energy-saving policies and informing the public about the real costs of energy and fuel supply to the country and the need for economical use of energy resources.

**206** The Government of the Kyrgyz Republic approved the Program of the Government of the Kyrgyz Republic on Energy Conservation and Energy Efficiency Policy Planning in the Kyrgyz Republic for 2015-2017 (dated August 25, 2015 No. 601).

### 3.4. MINING

**207** The availability of its own mineral resource base is a big advantage of the Kyrgyz Republic and its development can significantly increase the country's GDP and tax revenues to the state budget. Particular importance is attached to reserves of gold, rare and rare-earth metals, as well as non-metallic minerals.

**208** On the state balance of mineral resources, there are about 200 deposits with fully explored reserves of mineral raw materials that are actively explored. The volume of production from extraction of minerals in 2016 amounted to 11434.4 million KGS, which was 120.1% compared to the same period of 2015.

<sup>43</sup> Order of the Government of the Kyrgyz Republic of December 19, 2016 No. 549-r "On approval of the National Report on the state of the environment of the Kyrgyz Republic for 2011-2014".

**209** According to NSSD, mining is one of the strategic sectors of the country's economy. In the PTSD it was noted that the share of gold mining in GDP in 2012 was about 11%, 40% - in industrial production and 48% - in the country's exports. However, the fineness of mineral stocks requires the state to calculate the benefits and costs of extracting them in the long term, taking into account their retirement from the balance of the country's natural capital. A separate element of the assessment of benefits and costs is the storage of toxic waste that remains in the country after the closure of mining enterprises and requires significant financial investments to support them in proper condition to avoid negative impacts.

**210** On the territory of Kyrgyzstan there are 92 objects with radioactive and toxic wastes of mining production, including 36 tailing dumps, 31 of them contain radioactive waste. The location of most of them in the zone of formation of transboundary watercourses in areas with high seismic, landslide and avalanche danger poses a threat to the development of the entire Central Asian region.

**211** In 2015, the Government of the Kyrgyz Republic's Strategy for the Development of the Mining Industry of the Kyrgyz Republic was developed for the period from 2015 to 2035<sup>44</sup>, the main objective of which is "to achieve sustainable, dynamic and diversified development of the mining industry by balancing the interests of the state, mining companies and local communities".

**212** The priority areas of the strategy are to maximize investment, ensure the growth of the mining industry in accordance with the results of the simulation; modernize management (administration) of the mining industry; create a harmonized and effective system of legal regulation; improve the access system to the subsoil use rights and subsoil use administration; Improve taxation system; reduce the environmental impact; reduce conflict potential (relationships with the local population); train professionals and education; stimulate small-scale mining business (a stage of high incomes); compensate social losses (compensatory stage).

<sup>44</sup> Taking into account the structural changes in the Government of the Kyrgyz Republic, the work under the Program has been suspended. The main directions of development of the mining industry for the long-term period are expected to be reflected in the Program for Sustainable Industrial Development of Kyrgyzstan currently being developed for 2017-2050.

**213** The draft strategy notes that at present environmental protection decisions are at a low level. Among the main reasons for this is the lack of an ecosystem approach to the conservation of nature, including imperfect mechanism of limited environmental consumption, the imperfection of the legislative framework. These put forward a number of tasks in the field of land resources protection and waste management, protection of water resources, protection of atmospheric air and biodiversity conservation. The use of modern high-tech and environmentally friendly equipment and technology will significantly reduce the anthropogenic impact on atmospheric air. Modern methods of wastewater treatment allow directing treated effluents for the processing needs of concentrating plants, reducing the consumption of fresh water from the source of water supply.

**214** Due to the fact that mining and processing industry facilities are located in mountainous areas, which are largely untouched by anthropogenic activity, an important priority is the conduct of the Environmental Impact Assessment (EIA).

**215** Specific to the sector issues include systematic revision of payments for emissions of pollutants into the atmosphere; introduction of regular environmental impact assessment; integrated environmental monitoring system; use of internationally recognized resource-efficient and environmentally friendly technologies; introduction of international environmental standards, primarily ISO 14000; and ensuring transparent and stable cooperation between the state, the executive bodies of local self-government and mining companies, especially for sustainable and equitable management of revenues coming from mining companies on the regional level. Cost and benefits valuation of post-mining toxic wastes storage also requires significant financial investments for proper management. Other challenges in the mining sector include imperfections in the legal system which allow for inconsistencies and conflicting interpretations of the statutory and regulatory enactments. Problems with permissions, authorization documents, issuing of licenses and reporting are among the most pressing.

**216** In addition, the emergence of a mining enterprise in rural areas leads to certain

socio-economic consequences. Carrying out measures to mitigate such consequences (raising the productivity level of pastures, restoring agricultural lands, restoring floodplain forests, etc.) is one of the priority tasks. When designing the development of new deposits, the project should describe the stage of liquidation of production, taking into account these factors.

### **3.5. TRANSPORT AND CONSTRUCTION SECTOR**

**217** The transport complex of the Kyrgyz Republic is represented by rail, road, pipeline, air and water. The share of transport in the country's GDP was 4.18% in 2014.

**218** As of 2014, Kyrgyzstan's public transport network consisted of 34,000 km of roads and 425.3 km of railways. Out of the total length of motor roads in the country, 18,810 km were serviced by road sections of the Ministry of Transport and Roads of the Kyrgyz Republic, 15,190 km of roads belong to cities, villages, agricultural, industrial and other enterprises. Of the 425.3 km of railways, 260 km fall on the dead-end branch from Chaldybar station on the border with the Republic of Kazakhstan to the city of Balykchy on the shore of Lake Issyk-Kul and to the dead-end branches, and from 6 to 34 km in the Fergana Valley.<sup>45</sup>

**219** In high mountain areas and in view of the inaccessibility of the country's regions, road transport is the main mode of transport in the Kyrgyz Republic. Thus, 94% of freight and 97% of passenger traffic are carried out by road, which constitutes the main part of the transport sector.

**220** An analysis of the fleet of vehicles of the country in terms of the time spent in operation shows the progressive aging of the rolling stock, a significant part of the cars are at the limit of resource development and require updating.

**221** State registration and re-registration of vehicles is carried out by the State Registration Service under the Government of the Kyrgyz Republic. The car park of the country is more than 1 million units, 84% of which are passenger cars.

<sup>45</sup> Ordinance of the Government of the Kyrgyz Republic of December 19, 2016 No. 549-r "On approval of the National Report on the state of the environment of the Kyrgyz Republic for 2011-2014".

**222** At present, according to the legislation of the Kyrgyz Republic, the rate of customs duty (customs clearance) for a car depends on the year of manufacture and the volume of the engine. With the entry into the space of the EEU since 2015, the rate of customs duties and taxes for the import of vehicles is normatively fixed with an annual increase for the import of old cars. Old vehicles are those manufactured more than 13 years ago. Encouraged is the import of cars of 2012 of release on which the lowest tariff \$ 2.05 for each cubic centimeter of volume of the engine of the car.

**223** The continued growth in demand for transport, especially for road transport, raises serious concerns about the possible development of environmental and health problems, especially those related to air pollution, noise and land withdrawal from productive turnover. The importance of developing a policy for the distribution of transport by mode of transport is due to the uneven "environmental friendliness" of various modes of transport. Electric modes of transport are environmentally cleaner than other modes of transport. The priority of the state policy for the development of transport should be to improve the fleet of vehicles by replacing old, less environmentally friendly vehicles with new, more environmentally friendly ones.

**224** The NSSD in the section of transport services development has laid down measures aimed at introducing public-private partnership mechanisms in the road transport complex, creating the most favorable conditions for attracting private investments into this sector of the economy, including foreign direct investments, and to further expand the participation of all consumers in the development of infrastructure projects.

**225** According to the PTSD, ensuring national transport sovereignty is an important issue for the country's economic security. This necessitates building bypass roads in the cross-border areas and bypassing the territories of neighboring states. Five priorities have been identified: - improvement of the internal road network; - Rehabilitation of international road transport corridors and provision of access to regional markets for goods and services; - Creation of conditions for providing motor transport services for the sustainable development of road transport with minimizing harmful emissions; - creation of transit possibilities of railways; - ensuring the safety of flights, expanding the

network of international and domestic air transport and the sustainable development of civil aviation.

**226** To ensure safe transportation of hazardous goods by road, irrespective of the carrier's forms of ownership on roads throughout the Kyrgyz Republic, as well as from warehouses to work sites, the Regulations for the Transport of Hazardous Goods by Road, were adopted by the Decree of the Government of the Kyrgyz Republic dated April 11, 2016 No. 198.

**227** Construction. In 2015-2016, the construction sector in GDP totaled to 75.1 billion KGS (a share in GDP of 8.5%), respectively. The volume of investments in fixed assets in 2015 amounted to 127.3 billion KGS, which was 14% more than in 2014; and 2.2 times more than in 2011.

**228** In 2015, roadways with hard surface have been put into operation. Of them, 111.7 kilometers were the roads of national significance, 35.3 kilometers were of regional and local significance, 155.4 kilometers were of on-farm roads in agriculture. Anti-mud slides facilities with the length of 62.8 kilometers, bank protection structures of 9.9 kilometers, irrigation canals of 75.3 kilometers, and 21 bridges have been also built.

**229** The state of affairs in housing construction remained stable for the last five years. Over the last past five years, 49,300 apartments with a total area of 4.96 million square meters were commissioned in the country.

**230** There is an increase in the rate of entry of residential buildings per 1000 people. In 2011 it was 156.9 square meters, in 2014 it was 185.5 square meters, then in 2015 it reached 205.6 square meters. The main share of housing introduced in 2015 (43.8% of the total) was in Bishkek, where 536.4 thousand square meters were commissioned.

**231** In 2015, 1.7 thousand of construction organizations carried out financial and economic activities in the Republic, which accounted for 10.7% of the total number of enterprises in the real sector of economy. Two thirds from the total number (65.8 percent) were located in Bishkek

**232** In 2015, the construction companies commissioned 12.3 thousand of apartments with a total area of 1,225 thousand square meters of housing that is 13.2 percent more than in

2014. In the total volume of investments, the share of funds disbursed for housing construction was 24.8 percent, having decreased by 0.3 percentage points, as compared to 2014.

**233** Nevertheless, the subjects of urban development face a whole range of legislative restrictions and administrative barriers that impede the flow of investment and development of the construction complex. In particular, lack of a General Settlement Scheme ranging from general schemes of territorial planning to general plans for settlements and projects of detailed planning, nature management and organization of productive forces. At the same time, engineering documentation development is not supported by the lack of funding.

**234** The increasing process of internal migration from rural areas of Kyrgyzstan to large cities raises the issue of an operative solution of the housing problem in the cities of the Rep.

**235** Today's construction industry in the Kyrgyz Republic is energy-intensive. The Republic uses very few energy-saving technologies and materials, and advanced energy-saving technologies using alternative sources of renewable energy are poorly implemented. This situation is caused by the fact that budget support is not provided for the projects on development and introduction of the energy-saving technologies and related innovative developments (wind power plants, heat pumps, etc.). There is a resistance from construction companies to use new technologies because of the consumers' distrust to innovations in construction. Lack of environmental certification of construction and repair materials exacerbate the situation.

**236** One of the successful pilot projects to promote energy efficiency in the Kyrgyz Republic was the commissioning of a new experimental energy-efficient school in the Ak-Tilek micro district of Osh for 850 students in 2014. Compared with conventional buildings, the new energy-efficient school saves more than 700,000 kilowatt-hours per year and pays for itself in 8.8 years. New building energy saving standards were developed and put into operation with the support of the GEF / UNDP project "Improving Energy Efficiency in Buildings" and implemented in January 2012.

## 3.6. TOURISM

**237** The Kyrgyz Republic is one of the 200 priority ecological regions of the planet. The country has a high tourist potential, covering 22 diverse ecosystems, and a network of specially protected natural areas, including state reserves, nature parks and reserves. The Kyrgyz Republic is located along the Great Silk Road, on the roads of which there are 583 historical and cultural monuments and archaeological sites, some of which (Nevaket, Suyab, Balasagyn, Sulaiman-Too) are of global importance and included in the UNESCO World Heritage List. In the Kyrgyz Republic there are more than a thousand beautiful lakes, the main one being Lake Issyk-Kul, one of the largest and deepest mountain lakes in the world<sup>46</sup>.

**238** The territory of the country is one of the oldest centers of human civilization. Individual objects of the intangible cultural heritage such as the trilogy of the epic Manas, the traditional home of the nomadic peoples of Yurt, the types of felt carpet Shirdak and Ala Kiyiz are included in the UNESCO World Heritage List.

**239** As of 1 January 2016, 100,500 economic entities (legal entities and individuals) operating in the field of tourism were registered in the Kyrgyz Republic. This number includes enterprises that produce tourist goods, trade them and provide tourist and excursion services, restaurants, accommodation facilities for tourists related to living, recreation and entertainment, enterprises of all types of transport, etc. Of the total number of economic entities (legal entities and individuals), 10.3 thousand or 10.3% are registered enterprises that provide services in the field of recreation and recreation (services of hotel facilities, recreation centers, restaurants, medical and sanitary dispensaries). In general, such economic entities are located in Bishkek. They are 4,500 subjects (44%). The resort area of Issyk-Kul oblast hosts 1,500 subjects (14.9%). Individual entrepreneurial activity in the sphere of tourism employs more than 88 thousand individuals, or 88.0% of the total number of registered economic entities.

**240** The share of tourism in the volume of the country's GDP in last 5 years varies

<sup>46</sup> The program on development of tourism till 2020, Government of the Kyrgyz Republic, Order dated 11.04.16 № 194

between 4.5 and 4.7 percent. On average, about 1.5 million tourists visit the country annually.

**241** The tourism sector of Kyrgyzstan is currently represented by the following types of tourism:

- Therapeutic and health-improving (resort and recreational tourism, herbal medicine, mud cure, jailoo-tourism, kumysolechenie and others);
- Active and adventurous (mountain, hiking, horseback riding, cycling, ecotourism, photo hunting, mountaineering, rafting, caravanning, rural tourism, diving, hang-gliding);
- Cultural and cognitive (acquaintance with the culture, customs, heritage and traditions of the Kyrgyz, tourism along the Great Silk Road, gastronomic tourism);
- Winter tourism (ski tourism, freeriding, snowboarding and others);
- Business tourism (international summits, forums, symposia, conferences);
- Event tourism (traditional ethno-games, national holidays, creative festivals, competitions, exhibitions, sports events).

**242** In 2016 Kyrgyzstan topped the list of countries in which tourism will boom in the next 10 years in the ranking of the United Nations World Tourism Organization (UNWTO). The National Geographic Traveler magazine listed the country among top 20 world tourist destinations in 2016. Financial Times included Kyrgyzstan into Top-7 countries for travel in 2016. The British newspaper The Guardian promoted Kyrgyzstan as one of the new hot destinations for mountaineering. In 2015, Kyrgyzstan became the best direction for a photo tour of the opinion of the magazine «National Geographic», and business magazine "Forbes" included Karakol ski base resort among the top in CIS countries in 2015.

**243** NSSD claims that, "Kyrgyzstan must become one of the regional centers of tourism in Central Asia" through (i) creation of tourist clusters, with businesses and organizations involved in the development, production, promotion and sale of tourist products; (ii) revising the Law of the Kyrgyz Republic "On Tourism"; (iii) enhancing capacities of managers and staff; (iv) organization of cultural and sports events; (v) creation of an international forum in the shores of the lake Issyk-Kul for political and economic forums, as well as major

national events; (vi) the implementation of a large-scale pilot project on the creation of roadside hotels, campgrounds, parking for cars and trucks and related infrastructure. Such projects are believed to be points departure for the development of small and medium-sized businesses.

**244** The PTSD puts an objective of creating conditions for environmentally sustainable and competitive tourism. The Programme of the Government of for Development of Tourism until 2020, defines strategic guidelines for the development of eco-tourism and the preservation of ecosystems. The medium-term tourism policy focuses on improving efficiency of state regulation in development of tourist industry and promotion of quality improvement and diversification of tourist services and products.

**245** The main directions of tourism development in the Kyrgyz Republic are defined in the Program of the Government of the Kyrgyz Republic for the development of tourism until 2020, adopted in 2016<sup>47</sup>. The goal of the program is to create favorable conditions for the development of the domestic tourism industry in order to enhance the country's image in the international arena and the contribution of tourism to the economy through an increase in its share in GDP of at least 7%, and also comprehensively developing various types of tourism activities in order to use the rich natural potential of the country with an annual increase in the influx of tourists by 20%.

**246** The Law of the Kyrgyz Republic "On Specially Protected Natural Territories" defines the regime for the use of specially protected natural areas (hereinafter referred to as SPAs) in tourism activities. Protected areas are used for the development of ecological tourism, attracting local people to the formation of the tourist infrastructure and ensuring its sustainable functioning, as well as for acquaintance with the natural and historical and cultural attractions of the area. It is allowed to organize and arrange excursion ecological routes, hiking trails and parking areas, accommodation of tourism objects, museums and outdoor expositions in specially designated areas, depending on the regime of the established zone.

<sup>47</sup> Decree of the Government of the Kyrgyz Republic of 11/04/2016. No. 192



## 4. ENVIRONMENTAL SITUATION AND CLIMATE CHANGE

### 4.1. STATE OF ENVIRONMENT<sup>48</sup>

**247** Kyrgyzstan, as a mountainous country, is particularly vulnerable to natural and anthropogenic influences and has relatively small areas with normal bioclimatic conditions for life, in which the bulk of the population and practically all industrial and agricultural production are concentrated.

**248** In the Kyrgyz Republic natural ecosystems have not largely lost the ability to self-regulate the process of renewal of biological resources and to ensure the ecological balance.

**249** Progressive urbanization is accompanied by air pollution from emissions from stationary sources and road transport, by a decrease in access to quality drinking water, by degradation of land resources, loss of biological diversity, by the problem of the accumulation of solid domestic waste, and by an increase in the number and scale of natural and man-made emergencies.

**250** The current socio-economic situation, the level of poverty (32,1%), especially in rural areas, lead to a growing destruction of natural ecosystems. Poaching, extensive use of arable land, neglect of melioration and other measures have characterized unsustainable practices and have done severe damage to the ecosystems.

**251** The expected climate change will have a significant impact on the living conditions and health of the population, but the water resources of the republic will be the most vulnerable, which will reduce the opportunities for the development of hydropower and agricultural production. Also, climate change will lead to an increase in natural emergency situations. For the most unfavorable scenarios of climate change, the annual economic damage for the republic by the year 2100 may amount to about 64800 million KGS.

**252** Pollution of atmospheric air in large cities is observed. The widespread practice of compacting house buildings leads to a deterioration in the ventilation of urban areas. The proportion of urban population exposed to concentrations of pollutants that exceed the permissible ambient air quality standards was 59.3% in 2014.

**253** The main source of air pollution is the enterprises of the fuel and energy complex and the transport complex. According to the expert assessment, 87% of the main pollutants enter the atmosphere from mobile sources.

**254** Access to drinking water is an urgent problem. In rural areas, on average, 16.3% of population is not provided with clean tap water. Limited access to drinking water and its poor quality lead to an increase in the incidence of water-borne diseases. According to the data of 2015, 10.9% of the population had access to drinking water from open sources, 57.6% through the system of water pipes and only 26.2% through centralized water supply networks.

**255** Pollution of water resources by various chemical and biological substances is the most dangerous factor, leading to depletion and degradation of water resources and, especially, drinking water.

**256** As of 2014, 112.7 million tons of production and consumption wastes accumulated on the territory of the Kyrgyz Republic. The problems of environmentally safe disposal of solid household waste have not been solved in the country. The current waste management system is ineffective, the existing landfill sites do not meet the requirements of environmental and sanitary safety; they have exceeded the design lifetime several times and, at present, are themselves sources of secondary pollution of atmospheric air, soil, underground aquifers, and sources of drinking water supply. Particularly alarming is the state of management of solid domestic waste in the capital city.

**257** The volumes of solid domestic waste generation are steadily increasing every year. An average of about 1000 tons of solid household waste is collected and shipped daily for placement at the Bishkek city test site. At the same time, about 40-50% of the volume of solid household waste is made up of packaging waste.

<sup>48</sup> Ordinance The Government of the Kyrgyz Republic of December 19, 2016 No. 549-r "On approval of the National Report on the state of the environment of the Kyrgyz Republic for 2011-2014".

**258** Also, the volume of toxic waste at the enterprises increases every year.

**259** Tailings are a serious threat due to their weak protection from natural disasters, proximity to the main waterways of the region, populated areas and the state borders.

**260** Chemical substances, including pesticides, industrial substances and consumer substances are increasingly used in the industrial, agricultural and consumer sectors of society. The current situation directly affects the health of the population and the environment.

**261** The use of mineral fertilizers and pesticides contributes to the pollution of land and water resources.

**262** In order to minimize the harmful effects of chemicals on human health and the environment, the Government of the Kyrgyz Republic's Program and Action Plan for the Sound Management of Chemicals in the Kyrgyz Republic for 2015-2017<sup>49</sup>.

## 4.2. NATURAL RESOURCES

**263** Currently, the country's economy mainly makes use of technologies which serve to damage natural resources. The irrational use of limited natural resources, combined with population growth, an increase in overall demand, leads to a reduction in agricultural productivity and the economy as a whole.

## WATER RESOURCES

**264** Kyrgyzstan has significant resources of underground and surface water; these reserves are in rivers, eternal glaciers and snow massifs. There are more than 3500 rivers and streams and 1,923 lakes. The water reserve in the lakes is estimated at 1745 km<sup>3</sup> or about 71% of the total national moisture reserves. About 4.1% of the territory of the country is occupied by glaciers and snowfields. Currently, there is an active melting of glaciers and, according to expert estimates, the indicators have decreased by 20% since the 1960s.

**265** Kyrgyzstan uses 20-25% of the available water reserves. The rest of the flow goes to the territory of neighboring states. A significant part of the water resources in the country (more than 90%) is used for irrigation and agricultural water consumption.

**266** In recent years, there has been a steady growth of non-productive water losses. In 2011 this indicator was 21.7% of the total water abstraction, in 2014 it reached 26.5%. The reason for the losses lies in the unsatisfactory technical condition of irrigation and water distribution systems, equipment wear, the use of imperfect irrigation methods.<sup>50</sup>

## LAND RESOURCES

**267** Inefficient land use has a negative impact on the state of land resources, as well as uncontrolled transfer of agricultural land to land for construction of various facilities.

**268** The largest share of the land area of the country falls on the reserve lands (43.8%) and agricultural land (32.8%).

**269** Widespread small-scale agriculture leads to the destruction of soil fertility due to non-compliance with agrotechnology. 60% of agricultural land (arable land and pastures) are subject to water and wind erosion. The fertility of arable land decreases every year. The main reasons for the deterioration of the state of irrigated lands are insufficient natural drainage of the territory, the initial absence or destruction of the collector-drainage network, large losses of irrigation water during filtration in irrigation canals, irregular irrigation regime. Soil fertility is reduced due to the nutrient removal of plants, non-application of fertilizers also leads to a decrease in their fertility.

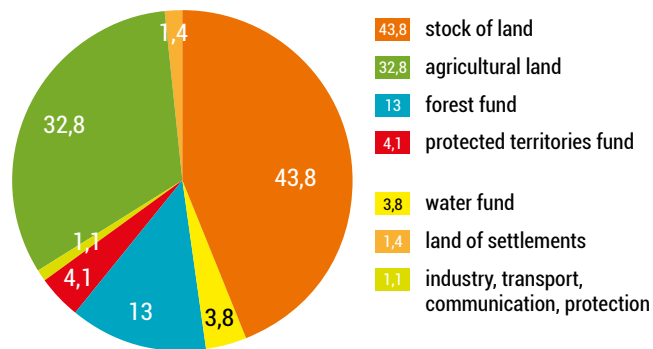
**270** There has been a steady increase in the number of livestock and unregulated grazing which leads to the destruction of the pasture ecosystem, which accounts for 85% of agricultural land, and grazing rates are exceeded dozens of times.<sup>51</sup>

<sup>50</sup> Ordinance The Government of the Kyrgyz Republic of December 19, 2016 No. 549-r "On approval of the National Report on the state of the environment of the Kyrgyz Republic for 2011-2014".

<sup>51</sup> Ordinance of the Government of the Kyrgyz Republic of December 19, 2016 No. 549-r "On approval of the National Report on the state of the environment of the Kyrgyz Republic for 2011-2014".

**Figure 7. Land fund distributed by categories of land in 2015 in %**

Source: National Statistical Committee of the Kyrgyz Republic



## FORESTS

**271** Deforestation is becoming of a growing concern. The main threat to local forests comes from the local population and their use of forest resources. About 200 thousand people live inside the forest and are completely dependent on forest resources. Wood is used as fuel, as well as for construction, which leads to deforestation, and, consequently, to land degradation.

**272** The forest area of the Kyrgyz Republic, according to the results of the first national forest inventory, is 5.61% of the total area of the republic. About 90% of forest plantations are located at an altitude of 700 to 2500 m above sea level.

**273** The Concept of Forestry Development for the period up to 2025<sup>52</sup> defines the strategy of development of the forest industry and provides the necessary conditions for the conservation, augmentation, sustainable forest management and sustainable development of the forest sector.

**274** The country has a great diversity of forests, which has no analogues in terms of variety concentration in any other countries of the region. Here there are juniper (juniper), spruce and spruce-fir, maple, small-leaved, walnut forests and pistachio, almonds. All of them are irreplaceable for biodiversity conservation. Ore-fruit and spruce-fir forests are of global importance as the largest and most preserved relict forests. All forests of the Kyrgyz Republic are environmental.

<sup>52</sup> Decree of the Government of the Kyrgyz Republic of April 14, 2004 No. 256.

**275** Although the forest growth dynamics is generally positive, aging of forests is a growing problem. This is especially true for the spruce forests that are naturally poorly renewed. The greatest anthropogenic stress is suffered by deciduous forests, walnut, pistachio and almond, which are mainly grown in regions with high population density.

**276** The forests of Kyrgyzstan play a key role in ensuring environmental stability and climate formation. Forests deposit carbon, thereby reducing the accumulation of greenhouse gases in the atmosphere.

**277** The most anthropogenic pressure is experienced by soft-leaved forests, walnut, pistachio and almond, which mainly grow in regions with a high population density. In order to preserve rare crops, the Program for the Development of Nut-Fruit Cultures in the Kyrgyz Republic until 2025 is being implemented<sup>53</sup>.

**278** On the positive note, in 2012, forest crops were planted on an area of 1090 hectares, in 2016 the area of planting was increased 2 times and amounted to 2,582 hectares.

## BIODIVERSITY

**279** Despite the fact that the Kyrgyz Republic is a small country in terms of its territory (0.13% of the world's land), it is one of the 200 priority ecological regions of the planet. This is due to the greatest concentration of species diversity.

**280** Land degradation and deforestation has led to loss of biodiversity. A sharp change in habitat, and direct removal of plants and animals of nature has led to the extinction of 11 species and endangered the disappearance of others. The Red Book of the Kyrgyz Republic now comprises 207 species of rare and endangered species of animals and plants.

**281** In order to ensure preservation of unique natural complexes and biological diversity, protection of rare and endangered species of flora and fauna, a network of specially protected natural areas (PAs) were established in the Kyrgyz Republic with a total area of 7.64% of the total area

<sup>53</sup> Decree of the Government of the Kyrgyz Republic of June 2, 2014 No. 293.

of the country and comprising 10 State nature reserves, 13 state natural parks, 64 nature reserves<sup>54</sup>. To date, the problem of effective functioning of PAs is low security and a weak material and technical base.

**282** In view of the urgency of the problem of the loss of biodiversity and degradation of natural ecosystems, the Priorities for the Conservation of Biological Diversity of the Kyrgyz Republic for the period up to 2024 and the Plan of Action for the Implementation of Priorities for 2014-2020 include activities for commitments under the Strategic Plan for Conservation and Sustainable Use Biodiversity, including the Aichi Biodiversity Targets for the period 2011-2020<sup>55</sup>, in particular on the value of biodiversity and can be undertaken for its conservation and sustainable use.

**283** Within the framework of the UNDP Biodiversity Finance Initiative (BIOFIN), an assessment of the financial needs is planned to make decisions on creating favorable conditions for the implementation of priority strategies and to develop a National Financing Plan for Biodiversity.

**284** Five national biodiversity conservation reports have been prepared and sent to the Secretariat of the UN Convention on Biodiversity Conservation.

**285** The Government of the Kyrgyz Republic approved the Priorities of the Kyrgyz Republic on conservation of wetlands by 2023<sup>56</sup> and the Action Plan to implement them on 2013-2017 by the Decree<sup>57</sup> 569 "On approval of the Priorities for the Conservation of Wetlands of the Kyrgyz Republic till 2023 and the Action Plan<sup>57</sup> for the implementation of the priorities for the conservation of wetlands of the Kyrgyz Republic for 2013-2017" dated October 18, 2013<sup>58</sup>.

**286** The Global Program for the Conservation of the Snow Leopard and its Ecosystems until 2020, was adopted at the end of the World Forum on the Protection of the Snow Leopard in Bishkek in 2013. It aimed at supporting national

priority actions of 12 countries of the snow leopard habitat, promoting cross-general issues throughout the area, as well as the establishment of a reliable system of coordination and monitoring of the progress of work.

### 4.3. ENVIRONMENTAL POLICIES

**287** The country is in the process of implementing and adapting the goals and priorities of sustainable development, taking into account the ongoing processes, both at the national level and in the international arena. Incorporation of issues of ensuring environmental sustainability in the country's development priorities allows on a long-term basis to ensure stable economic growth that does not lead to degradation of the natural environment.

**288** According to the EPI, the Kyrgyz Republic rose from 127th position in 2012 to 71st in 2016, improving environmental performance by 23.53% over 10 years.

**289** The fundamentals of the state policy in the field of environmental protection are defined in the strategic documents of national development. An institutional and legislative infrastructure has been created for the implementation of effective environmental policy, a number of international agreements on environmental issues have been signed, and an environmental management system has been established.

**290** According to the NSSD, the state policy in the field of environmental protection and environmental safety is aimed at: - a phased transitioning to the system of strategic planning for sustainable development, by all subjects of economic, social and environmental activity, regardless of ownership, providing for equal attention to its economic, social and Ecological components; - minimizing negative environmental consequences during economic growth through carrying out environmental impact assessment of planned economic and other development projects; - compensating for damage to the environment caused by violation of environmental legislation; - accessibility and openness of environmental information; - participation of all interest groups in decision-making on environmental protection and environmental management at both the national and local levels.

54 SAEPF data

55 Resolution of the Government of the KR of March 17, 2014 No. 131

56 Resolution of the Government of the KR of October 19, 2012 No. 732

57 Ordinance of the Government of the Kyrgyz Republic of August 5, 2013 No. 320-r

58 Resolution of the Government of the KR of October 18, 2013 No. 569

**291** The PTSD reflects the following priority areas: (i) reform of the public administration system for environmental protection and nature management; (ii) reduction of adverse impact and minimization of negative environmental consequences of economic activity; (iii) conservation of biodiversity and restoration of natural ecosystems in a changing climate; (iv) promoting the principles of low-carbon development.

**292** In the context of sustainable development and taking into account the ecosystem approach, the Concept of Ecological Security of the Kyrgyz Republic until 2020 has been developed and approved, which identifies key environmental problems that threaten the socio-economic development and health of the population of the Republic, principles and measures to mitigate and prevent them. The Concept defines directions and mechanisms for ensuring environmental safety for short, medium and long-term periods<sup>59</sup>.

**293** In order to reduce the negative impact on the environment by industrial enterprises, including in the field of mining, compliance with environmental legislation, state environmental control over the protection of air, water and land resources, biodiversity resources and forest ecosystems will be necessary.

**294** To prevent possible negative impact on the health of the population and on the environment from the planned economic and other activities, a state environmental assessment of the pre-design and design estimates is carried out. In Kyrgyzstan, along with state environmental expertise, a public environmental assessment is carried out. One of the main principles of the Law of the Kyrgyz Republic "On Environmental Expertise" is the principle of taking into account public opinion.

**295** The organizational structure of environmental monitoring in the Kyrgyz Republic, since its inception, has been largely fragmented. A number of different ministries and agencies fulfill the functions of monitoring the state of the environment and / or environmental impact.

**296** With a view to access, both to governmental bodies and the general public, to obtain objective and reliable analytical information on the state of the environment, the National Re-

port on the State of the Environment of the Kyrgyz Republic for 2011-2014 was developed<sup>60</sup>. Such a document was first developed on the basis of generally accepted environmental indicators according to international standards and officially approved by the Government of the country, to becoming a good basis for making socio-economic decisions taking into account trends in environmental quality.

**297** As a party to 14 international environmental conventions and four protocols, Kyrgyzstan, on the one hand, is included in the global process of environmental performance, on the other hand, it has become a full member of the world community and is entitled to receive technical and financial assistance from developed countries. In the framework of the implementation of commitments to international environmental conventions, the country regularly prepares reports to the convention Secretariat, and realizes a number of projects aimed at environmental protection and rational use of natural resources (List of conventions and GEF projects in Annex 2).

#### **4.4. CLIMATE CHANGE**

**298** Specific to the country are extreme environmental conditions and high vulnerability of mountain ecosystems. Prevalence of compound mountain relief creates challenging living conditions in the foothills, plains and valleys, where most settlements are located. The country has already been impacted by climate change, in terms of changes in the ecosystem services, health, and economic activity. Climate change has led to a weakening of energy and food security, called into question the security of water resources and increased vulnerability to emergency.

**299** According to the scientists' estimates, the expected climate changes will lead to a reduction in the total surface runoff in the Kyrgyz Republic by 2100 more than twice. Hence, there will be unfavorable consequences for ensuring energy security and agricultural production.

**300** The Kyrgyz Republic, fully supporting international efforts to address climate change, has taken an active role to implement climate convention. Having ratified the United Nations

59 Decree of the President of the Kyrgyz Republic of November 23, 2007 No. 506

60 Decree of the Government of the KR dated December 19, 2016 No. 549

Framework Convention on Climate Change in 2000 and the Kyoto Protocol in 2003, the country has moved to actions on climate change in its status of a developing country. In 2012, in the Kyrgyz Republic has formed a Coordination Commission on the Problems of Climate Change, chaired by Vice Prime Minister of the Kyrgyz Republic, with the mandate of the national authority on climate change.

**301** In 2012, the Coordinating Commission for Climate Change was established in the Kyrgyz Republic under the chairmanship of the Vice Prime Minister of the Kyrgyz Republic, with the assignment of the national climate change authority to it<sup>61</sup>.

**302** In order to promote multi-stakeholder dialogue and consultation process for the consolidation of efforts and action on climate change Climate Interactive Platform has been created in Kyrgyzstan. An important feature of the Platform is that it brings together not only the efforts of civil society representatives, and representatives of government agencies, science, business organizations and partners of the Kyrgyz Republic on development.

**303** In 2013 the government of the Kyrgyz Republic developed and adopted Priority Directions for Adaptation to Climate Change in the Kyrgyz Republic until 2017<sup>62</sup>. This document makes provisions for climate change adaptation measures in sectors such as water resources, agriculture, health, emergencies, forests and biodiversity. Sectoral adaptation programs have been developed and implemented. The Third National Report of the Kyrgyz Republic on the implementation of the UN Framework Convention on Climate Change has been prepared.

**304** Three National Communications of the Kyrgyz Republic under the United Nations Framework Convention on Climate Change have been prepared.

**305** In 2016, the Kyrgyz Republic signed the Paris Agreement on the Framework Convention of the United Nations Framework Convention on Climate Change. The prospects of the Paris Agreement for economically weaker and more

vulnerable countries such as the Kyrgyz Republic, includes access to climate funds, both for adaptation and for low-carbon development involving a reduction in greenhouse gas emissions.

**306** Despite small emissions of greenhouse gases, Kyrgyzstan supports world trends in addressing issues related to climate change. Thus, the draft Concept of long-term actions for the development of low-emission greenhouse gases until 2050 is developed.

**307** In 2015, the Kyrgyz Republic became a participant in the Climate Change Resilience Pilot Program for the Climate Investment Fund (CIF). Within the framework of the Pilot Program, a strategic program is being prepared to increase the resilience to climate change of key sectors of the economy of the country.

**308** Approaches and positions of the Kyrgyz Republic are set out in the Nationally Defined Contribution, prepared in 2015 by the 21st Conference of the Parties to the UNFCCC. In the contributions of the Kyrgyz Republic, the long-term vision of national measures to prevent climate change and enhance climate sustainability has been identified. The document contains measures for adaptation, mitigation and information on the necessary funding. The target for adaptation is to reduce losses from the adverse effects of climate change on public health, the economy and the environment.

61 Resolution of the Government of the KR of November 21, 2012 No. 783

62 Resolution of the Government of the Kyrgyz Republic dated October 2, 2013 No. 549

# 5. PRIORITY DIRECTIONS AND RECOMMENDED AREAS OF ACTION FOR PAGE

## 5.1. NATIONAL LEVEL

**309** The following areas are recommended for action by the PAGE initiative at the national level:

- ✔ Supporting key stakeholders in understanding, identifying and implementing opportunities for developing green economy policies and developing green jobs.
- ✔ Introduction of economic modeling of sustainable development taking into account indicators of the "green" economy and development of a policy based on data
- ✔ Integration of issues of the Inclusive Green Economy into strategic documents on sustainable development, including gender issues and strengthening the mechanism of interagency cooperation
- ✔ Revision of the fiscal policy, tariffs, public procurement systems, subsidies and other incentives for moving to a green economy with transparent mechanisms for assessing and monitoring public expenditure, and related work on costing and reviewing expenditures (including a review of government spending on the environment).
- ✔ Support to the Government in systemic economic assessment of natural capital and ecosystems, as well as building an effective monitoring system in accordance with international and national development strategies.
- ✔ Prevention and reduction of negative environmental consequences during economic growth through conduction of the environmental impact assessment, strategic environmental assessment and environmental impact assessment of economic and other development projects.
- ✔ Promotion of low-carbon development issues.
- ✔ Creation of favorable conditions for the intro-

duction of resource-saving, low-waste and non-waste technologies; modernization of production, the development of new methods and technologies, the reproduction of natural resources, an increase in the share of the use of secondary resources and waste management.

- ✔ Conservation and restoration of natural ecosystems.
- ✔ Development of measures to develop the territory, "smart" and "green" cities.
- ✔ Developing measures to promote green economy through the private sector.
- ✔ Introduction and improvement of relevant data and indicators used for analysis, monitoring and evaluation to the GGI.
- ✔ Implementation of new statistical reports, monitoring and data collection systems for the determination of GGI in the country.
- ✔ Support for the development of mechanisms for coordinating international financing for green economy initiatives.
- ✔ Increased awareness and knowledge about green economy among the representatives of parliament, government bodies, the business sector, the non-governmental sector and the public.
- ✔ Integration of the principles of the "green" economy in the system of formal and non-formal education.

## 5.2. SECTOR-BASED LEVEL

**310** Priorities for green economy development in Kyrgyz Republic as part of its participation in the PAGE initiative include development of low-carbon energy and energy efficiency, development of organic agriculture, development of ecotourism, green building, the development of technologies to reduce environmental pollution, adaptation to climate change, protection of natural ecosystems, safety of social facilities and education for sustainable development. It is recommended that the following directions be considered:

- ✔ Development of measures on energy saving and renewable energy sources.
- ✔ Introduction of new "green" technologies for construction and operation of buildings, development of standards.

- ✔ Promotion of organic agriculture through the development of value chains.
- ✔ Rendering assistance in the development and implementation of innovative resource-saving technologies in agricultural production.
- ✔ Development of sustainable pasture management.
- ✔ Assistance in the creation of "green" jobs.
- ✔ Support in the development of "green" transport.
- ✔ Support for the development of trade in "green" products and services.
- ✔ Introduction of market mechanisms that stimulate the effective waste management.
- ✔ Assisting in access to "green" finance for the development of small and medium-sized enterprises.
- ✔ Development of tourism services, including ecotourism





## **APPENDIX 1.**

### **LIST OF INTERNATIONAL ENVIRONMENTAL CONVENTIONS AND GEF PROJECTS**

#### **International Environmental Conventions:**

1. Convention on Long-range Transboundary Air Pollution
2. Convention on Environmental Impact Assessment in a Transboundary Environment
3. Vienna Convention on the Protection of the Ozone Layer
  - The Montreal Protocol on Substances that Deplete the Ozone Layer
4. Convention on Biological Diversity
  - Cartagena Protocol on Biosafety to the Convention on Biological Diversity
  - The Nagoya Protocol on Access to Genetic Resources
5. Convention on Wetlands of International Importance, Especially as Waterfowl Habitat
6. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
7. The Bonn Convention on the Conservation of Migratory Species of Wild Animals
8. United Nations Framework Convention on Climate Change
  - Kyoto Protocol to the United Nations Framework Convention on Climate Change
9. Convention to Combat Desertification in Those Countries Experiencing Serious Drought and / or Desertification, Particularly in Africa of 12 September 1994
10. Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
11. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
12. Stockholm Convention on Persistent Organic Pollutants
13. The Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters
14. Convention on the Protection of the World Cultural and Natural Heritage

## **APPENDIX 2.**

### **PROJECTS, SUPPORTED BY GEF IN THE KYRGYZ REPUBLIC**

- UNDP / GEF "Protection of human health and the environment from unintentional releases of persistent organic pollutants and mercury as a result of improper handling of medical waste in Kyrgyzstan", 2014-2017.
- GEF / UNDP / UNECE "Promoting transboundary cooperation and integrated water resources management in the Chu and Talas river basins", 2015-2018.
- UNDP / GEF "Improving the effectiveness of PA coverage and management in the mountains of the Central Tien Shan", 2013-2017.
- The GEF Small Grants Program in Kyrgyzstan.
- UNDP / GEF "Strengthening institutional and legal capacity to improve the national environmental information management and monitoring system", 2015-2018.
- FAO / GEF "Sustainable management of mountainous forest and land resources in the context of climate change", 2014-2018.
- UNDP / GEF "Conservation of Globally Significant Biodiversity, Adjacent Land and Forest Resources of Mountainous Ecosystems in the Western Tien Shan and Support of Sustainable Livelihoods", 2017-2020.
- WB / IBRD / GEF "Integrated management of forest ecosystems". The Kyrgyz Republic Law No. 128 of June 21, 2016 ratified the Financing Agreement between the Kyrgyz Republic and the International Development Association and the Grant Agreement between the Kyrgyz Republic and the International Bank for Reconstruction and Development for \$ 16.11 million.

## APPENDIX 3. STRATEGIC FRAMEWORKS

### CURRENT NATIONAL STRATEGIES, PROGRAMS AND LEGISLATIONS RELATED TO GREEN ECONOMY IN THE KYRGYZ REPUBLIC

Sector/politics	National strategies, programs and initiatives	Legislation
<b>National level</b>	National Sustainable Development Strategy of the Kyrgyz Republic for the period 2013-2017. Program for the transition of the Kyrgyz Republic to sustainable development for the period 2013-2017.	The Constitution of the Kyrgyz Republic
<b>Economics Policy</b>	The concept of tax policy in the Kyrgyz Republic for 2015-2020 The program of development of the private sector in the Kyrgyz Republic for 2015-2017. Export Development Plan for the Kyrgyz Republic in 2015-2017.	Budget Code of the Kyrgyz Republic Tax Code of the Kyrgyz Republic Customs Code of the Kyrgyz Republic Labor Code of the Kyrgyz Republic Laws of the Kyrgyz Republic: "On state forecasting of social and economic development of the Kyrgyz Republic"; "On Investments in the Kyrgyz Republic"; "On state support of small business"; "On the protection of the rights of entrepreneurs"; "On public-private partnership in the Kyrgyz Republic"; "On State Regulation of Foreign Trade Activity in the Kyrgyz Republic"; "On electric and postal communication"; "On the Chamber of Commerce and Industry of the Kyrgyz Republic"; "On state regulation of production and turnover of ethyl alcohol and alcohol products of the Kyrgyz Republic"; "On Transport"; "On veterinary medicine"; "On quarantine of plants"; "On Protection of Consumer Rights"; "On public health"; "On Radiation Safety of the Population of the Kyrgyz Republic"; "On protection of the health of citizens in the Kyrgyz Republic"; "On medicines"; "On the protection of the ozone layer"; "On ratification of the Stockholm Convention on Persistent Organic Pollutants"; "On state regulation and policies in the field of greenhouse gas emissions"; "On the protection of the environment"; "On joining the" Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)"; "On the protection of traditional knowledge"; "On Copyright and Related Rights"; "On public procurement"; "On Free Economic Zones in the Kyrgyz Republic"; "On licensing and licensing system in the Kyrgyz Republic"; "On non-tax payments"; "On tariffs of insurance premiums on state social insurance"; "On social partnership in the field of labor relations in the Kyrgyz Republic"; "On bankruptcy (insolvency)."

<p><b>Sector-based policy</b></p>	<p>The Strategy of the Government of the Kyrgyz Republic on the development of the construction industry in the Kyrgyz Republic "(at the discussion stage)</p> <p>The Strategy for the development of the fuel and energy complex until 2025</p> <p>The concept of small hydropower development of the Kyrgyz Republic until 2017</p> <p>The Program of the Government of the Kyrgyz Republic on Energy Efficiency and Energy Efficiency Planning for 2016-2017</p> <p>The Concept of Development of The National Quality Infrastructure of the Kyrgyz Republic for the period up to 2020</p> <p>The Program of the Government of the Kyrgyz Republic for the development of tourism until 2020</p> <p>The long-term program of agricultural development of the Kyrgyz Republic until 2040 (at the stage of discussion)</p> <p>The National Action Plan for the Production of Organic Agricultural Products in the Kyrgyz Republic (the document passes the relevant approval procedures)</p> <p>Program of Development of Manufacturing Industry of the Kyrgyz Republic for 2013-2015</p> <p>The Program on Sustainable Industrial Development of Kyrgyzstan for 2017-2050 (under development)</p> <p>The Food Security and Nutrition Program in the Kyrgyz Republic for 2015-2017</p> <p>The Program of development of food and processing industry of the Kyrgyz Republic for 2017-2021.</p> <p>The Program of development of textile and clothing production of the Kyrgyz Republic for 2013-2015</p>	<p>Laws of the Kyrgyz Republic:</p> <p>"On tourism";</p> <p>"On the bowels";</p> <p>"On oil and gas";</p> <p>"On coal";</p> <p>"On agreements on the division of production in the subsoil use";</p> <p>"On concessions and concession enterprises";</p> <p>"On Free Economic Zones in the Kyrgyz Republic";</p> <p>"On licensing and licensing system in the Kyrgyz Republic";</p> <p>"On non-tax payments";</p> <p>"On Pricing Insurance in State Social Insurance";</p> <p>"On social partnership in labor relations in the Kyrgyz Republic";</p> <p>"On bankruptcy" (insolvency of the payment);</p> <p>"On Urban Development and Architecture of the Kyrgyz Republic";</p> <p>"Technical regulations" Safety of building materials, products and structures ";</p> <p>"Technical regulations" Safety of buildings and structures ";</p> <p>"On the Basics of Urban Development Legislation of the Kyrgyz Republic", "On Local Self-Government".</p>
<p><b>Environmental policies</b></p>	<p>The concept of ecological safety of the Kyrgyz Republic</p> <p>The concept of sustainable development of the ecological and economic system "Issyk-Kul"</p> <p>Concept of the development of the forestry sector for the period up to 2025</p> <p>Priorities for the conservation of biological diversity of the Kyrgyz Republic for the period up to 2024 and the Action Plan for their implementation</p> <p>National strategy of snow leopard conservation in the Kyrgyz Republic for 2013-2023</p> <p>Plan for the implementation of the National Snow Leopard Strategy in the Kyrgyz Republic</p> <p>Program for the development of nut-bearing crops in the Kyrgyz Republic until 2025</p> <p>Priorities for the Conservation of Wetlands of the Kyrgyz Republic until 2023 "and Action Plan for their implementation for 2013-2017</p> <p>Priorities for adapting to climate change in the Kyrgyz Republic until 2017</p> <p>Program and the Plan for the Good Management of Chemicals in the Kyrgyz Republic until 2017</p> <p><b>Frameworks developed and in the process of discussion and approval:</b></p> <p>A set of measures to ensure environmental safety of the Kyrgyz Republic for the period until 2020 (pending in the APKR)</p> <p>The concept of low-carbon development (in the process of coordination with ministries and departments).</p>	<p>Land Code of the Kyrgyz Republic</p> <p>Water Code of the Kyrgyz Republic</p> <p>Forest Code of the Kyrgyz Republic</p> <p>Laws of the Kyrgyz Republic:</p> <p>"On the protection of the environment";</p> <p>"On the animal world";</p> <p>"On the Protection and Use of the Flora";</p> <p>"On specially protected natural territories";</p> <p>"On Biosphere Territories in the Kyrgyz Republic";</p> <p>"On environmental impact assessment";</p> <p>"On Waste and Consumption";</p> <p>"On the protection of atmospheric air";</p> <p>"On the animal world";</p> <p>"On Renewable Energy Sources", etc.</p> <p>Environmental NPAs as of 2016 can be found at <a href="http://aarhus.kg/ru/sbornik-npa-kr-v-oblasti-okruzhayushhej-sredy">http://aarhus.kg/ru/sbornik-npa-kr-v-oblasti-okruzhayushhej-sredy</a></p>

<p><b>Social sector</b></p>	<p>The Program of the Government of the Kyrgyz Republic with the aim of promoting employment and regulating internal and external labor migration until 2020.</p> <p>The National Strategy of the Kyrgyz Republic on Achieving Gender Equality until 2020 and the Action Plan</p> <p>The Strategy of Protection and Strengthening of Health of the Population of the Kyrgyz Republic until 2020.</p> <p>The Strategy of E-health Development in the Kyrgyz Republic for 2015-2020.</p> <p>The National Program for Reforming the Health Care System of the Kyrgyz Republic "Den sooluk" for 2012-2016.</p> <p>The Program of State Guarantees for Providing Citizens with Health Care.</p> <p>The concept of the Development of Education in the Kyrgyz Republic until 2020.</p> <p>The Strategy of the Development of Education in the Kyrgyz Republic for 2012-2020.</p> <p>The Action Plans for the Implementation of the Strategy for the Development of Education in the Kyrgyz Republic.</p> <p>The Development Strategy of the National Academy of Sciences for 2013-2025</p> <p>National Strategy for the Development of Intellectual Property and Innovation in the Kyrgyz Republic for 2012-2016</p> <p>Plan of Measures to Implement the Objectives of the National Strategy for the Development of Intellectual Property and Innovation in the Kyrgyz Republic for 2012-2016</p>	<p>The Labor Code of the Kyrgyz Republic;</p> <p>Laws of the Kyrgyz Republic:</p> <p>"On promoting employment growth";</p> <p>"On external migration";</p> <p>"On internal migration";</p> <p>"On external labor migration";</p> <p>"On preventing and combating human trafficking".</p> <p>"On protection of public health";</p> <p>"On public health";</p> <p>"On health care organizations in the Kyrgyz Republic";</p> <p>"On education";</p> <p>"On preschool education";</p> <p>"On measures to prevent harm to the health of children, their physical, intellectual, mental, spiritual and moral development in the Kyrgyz Republic";</p> <p>"On science and on the foundations of state scientific and technical policy";</p> <p>"On the system of scientific and technical information";</p> <p>"On the scientific and technical information system";</p> <p>"Patent Law of the Kyrgyz Republic";</p> <p>"On Copyright and Related Rights";</p> <p>"On innovation activity";</p> <p>"Information on the National Academy of Sciences of the Kyrgyz Republic".</p>
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## **APPENDIX 4. KEY PARTNER ORGANIZATIONS TO IMPLEMENT GREEN ECONOMY PROGRAMME IN THE KYRGYZ REPUBLIC**

### **STATE INSTITUTIONS**

Jogorku Kenesh of the Kyrgyz Republic (Parliament)  
Office of the President of the Kyrgyz Republic  
Office of the Government of the Kyrgyz Republic  
National Bank of the Kyrgyz Republic  
National Statistical Committee of the Kyrgyz Republic  
Ministry of Economy of the Kyrgyz Republic  
Ministry of Finance of the Kyrgyz Republic  
Ministry of Agriculture, Food Industry and Melioration of the Kyrgyz Republic  
Ministry of Labor and Social Development of the Kyrgyz Republic  
Ministry of Education and Science of the Kyrgyz Republic  
Ministry of Health of the Kyrgyz Republic  
Ministry of Culture, Information and Tourism of the Kyrgyz Republic  
Ministry of Transport and Roads of the Kyrgyz Republic  
Ministry of Emergency Situations of the Kyrgyz Republic  
State Committee of Industry, Energy and Subsoil Use of the Kyrgyz Republic  
State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic  
State Agency for Architecture of construction and Housing and Communal Services under the Government of the Kyrgyz Republic  
State Customs Service under the Government of the Kyrgyz Republic  
State Tax Service under the Government of the Kyrgyz Republic  
State Service of Intellectual Property and Innovations under the Government of the Kyrgyz Republic  
State Migration Service under the Government of the Kyrgyz Republic  
The State Inspectorate for Environmental and Technical Safety under the Government of the Kyrgyz Republic  
The State Inspectorate for Veterinary and Phytosanitary Security under the Government of the Kyrgyz Republic  
State Inspectorate for Environmental and Technical Safety under the Government of the Kyrgyz Republic  
Plenipotentiary representatives of the Government of the Kyrgyz Republic in the regions  
Bodies of local self-government  
National Academy of Sciences of the Kyrgyz Republic

### **INSTITUTIONS OF EDUCATION, TRAINING AND RESEARCH**

National Academy of Sciences of the Kyrgyz Republic  
National Institute for Strategic Studies of the Kyrgyz Republic  
Bishkek Financial and Economic Academy  
Kyrgyz National Agrarian University and other research institutes

### **NON-STATE STRUCTURES**

Association of Light Industry  
Association "Soyuztextile"  
Business Association "JIA"  
Free trade zones trade unions  
Association of Confederation of Manufacturers and Employers  
Chamber of Commerce and Industry of the Kyrgyz Republic

## **INTERNATIONAL ORGANIZATIONS**

The United Nations Development Program (UNDP)  
The United Nations Environment Program (UNEP)  
United Nations Industrial Development Organization (UNIDO)  
The International Labor Organization (ILO)  
The United Nations Institute for Training and Research (UNITAR)  
The specialized agency of the United Nations Educational, Scientific and Cultural Organization (UNESCO)  
International Organization for Migration (IOM)  
The Food and Agriculture Organization of the United Nations (FAO)  
UN Women  
The World Bank  
Asian Development Bank (ADB)  
The European Bank for Reconstruction and Development (EBRD)  
The United States Agency for International Development (USAID)  
Russian-Kyrgyz Development Bank  
The German Society for International Cooperation (GIZ)  
OSCE  
Soros Foundation-Kyrgyzstan

## **NON-GOVERNMENT ORGANIZATIONS**

Chamber of Commerce and Industry  
Business associations, trade unions, environmental organizations (UNISON, BIOM, CAMP Ala-Too, Independent Environmental Expertise, etc.)

# **PAGE** PARTNERSHIP FOR ACTION ON GREEN ECONOMY

Kyrgyz Republic has defined ambitious goals for sustainable development and inclusive economic growth in its National Strategy for Sustainable Development, the country document defining the national development agenda. The strategic sectors of the economy are agriculture, mining and processing industry, transport, construction and tourism. There are specific challenges for each sector, which can impede the successful achievement of the sustainable development goals in the country.

The main challenges identified for developing an inclusive green economy in Kyrgyz Republic are related to the harmonization of national strategic plans and their practical implementation at the sectoral level, individual, institutional and economic potential, insufficient level of stimulating the transition to green economy and lack of a system for accounting natural capital.

The recommended actions for Kyrgyz Republic under the PAGE programme includes integration of economic modelling, use of green economy indicators, and introduction and application of statistical measurements, data and modelling for employment and green jobs policies. Sectoral recommendations are described in more detail in the fifth chapter of this report.

Furthermore, there is a need to integrate inclusive green economy into the strategic documents and policies on sustainable development. At the sectoral level, the priorities include the development of low-carbon energy and increased energy efficiency, development of organic agriculture, eco-tourism, green construction, clean technologies for pollution reduction, climate change adaptation, conservation of natural ecosystems, and enhancement of social facilities and education for sustainable development.

The data of the National Statistical Committee of the Kyrgyz Republic is used in this document; when other sources are used, a relevant reference is made to the source.

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