РИО+20
Конференция
Организации
Объединенных
Наций
по устойчивому
развитию

THE PROSPECTS FOR "GREEN" ECONOMY IN THE KYRGYZ REPUBLIC

CONTENT:

INTRODUCTION:

(1). This paper was prepared on the eve of the UN Conference on Sustainable Development, which will be held 21-22 June 2012 in Rio-de-Janeiro, with an aim of providing informational support for participation of Kyrgyzstan in this event and reaching mutually beneficial agreements with the international community.

(2). The work of this conference will be aimed at renewing countries political positions on how they can contribute to sustainable development of human civilizations and solve the problems on promotion of an integrated approach to development as a combination of economic, social, environmental and institutional dimensions to ensure that future generations have the same opportunities.

(3). The forthcoming UN Conference on Sustainable Development (also referred to asRio+20) will become a major event in the world history, which will highlight the presence of more 110 heads of state and government and 70 thousand civil society and private sector leaders.

(4). Rio+20 will convene after 20 years since the 1992 UN Conference on Sustainable Development, a high-level Earth Summit that laid down the foundations for a new approach to economic growth creating safer and prospering future for all without damaging the environmental systems.

(5). A cross-cutting issue to be discussed at Rio+20 Conference will be "green" economy in the context of sustainable development and poverty eradication, as well as institutionalization of this development approach.

(6). Kyrgyzstan is participating in the Conference on sustainable development issues for the first time in the status of a parliamentary republic, therefore promotion of national interests in newly established institutional frameworks is a critical task for it to draw the attention of the world community to the problems with promoting sustainable development initiatives in the Kyrgyz Republic.

(7). Taking this into consideration, this document targets to use the concept outlined here for formulation and articulation of the official national position on support of "green" economic development at the upcoming Rio+20 for future sustainable development of the Kyrgyz Republic. Besides that, it will serve as a basis for developing a conceptual strategic document on sustainable development of Kyrgyzstan, which will set the course and vision for Kyrgyzstan's development in the long term perspective.

(8). This document identifies the resource potential, priority areas and general outlines of "green" economic development pattern of the Kyrgyz Republic with relevant reasoning and long-term expectations.

(9). A separate section on "Social Aspects of Development" gives the long-term expectations of society, populations of mountain areas with high poverty level while promoting the green economic development initiatives of the Kyrgyz Republic.

(10). The "green" economic development pattern of the Kyrgyz Republic is based on 4 pillars/ priorities: (i) mountain ecosystems; (ii) water resources; (iii) hydropower; and (iv) agriculture.

(11). Based on the identified barriers in promoting green development priorities of the Kyrgyz Republic, a message to the world community has been formulated within this document, on the

need of the Kyrgyz Republic for support with an aim of bringing up the points of the this message for discussion at Rio+20 Conference.

(12). This document is a joint effort by key government institutions, non-government sector representatives and independent experts coordinated by UNDP and Ministry of Economy and Antimonopoly Policy of the Kyrgyz Republic.

I. CONCEPTUAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT AND "GREEN" ECONOMY

(13). **Sustainable development** is a process of change, where exploitation of natural resources, investments patterns, orientation of science and technological development, personal development and institutional changes are in harmony and enhance both current and future generations to human need and aspirations. In many ways, it is about ensuring proper quality of life for people.

(14). In other words, conceptual framework of sustainable development means meeting the needs of the present without compromising the ability of future generations to meet their own needs. This concept has at its core environmental protection and rational use of natural resources, social development and poverty reduction, healthcare issues, transfer of technologies, financial and technical assistance of developed countries for national development strategies of developing states.

(15). Today it is obvious that the country can stay in the mainstream of world development only by changing itself, reviewing the old approaches and methods for solving economic, political, social, environmental problems and forming a modern sustainable development model building on interlinks and interdependences of all these components.

(16). Adherence of the world community to sustainable development concept was formally confirmed in "Agenda21" adopted at UN Conference on Environment and Sustainable Development in Rio-de-Janeiro in 1992, which binds all countries to take on a collective responsibility for strengthening and consolidation of basic frameworks of sustainable development. In particular, in Article 13 of this document, participants of the summit put mountains alongside with such global problems as climate change and desertification.

(17). A conceptual vision of "green" economy developed over the recent years by international experts is considered as a new vector of sustainable development to ensure the balanced approach to three components of sustainable development (economy, environment and social development), which would be acceptable to all groups of countries – developing, developed and states with transition economies.

(18). The initiative on "green" economy is based on three main principles: (i) assessment and highlighting natural services at national and international levels; (ii) providing employment for population through creating "green" jobs and developing relevant policies; (iii) application of market mechanisms for achievement of sustainable development.

(19). Today there is no a universal formula or a model of implementing green economic strategy. Transition to "green" economic growth will depend on political and institutional conditions, development levels, availability of natural resources and certain aspects of environmental pressure in each country.

(20). Supporters of the "green" economy concept believe that a current economic system is not imperfect although it has given certain results in increasing living standards of people and especially of its certain groups in general.

(21). However negative impacts of current economic system are significant: (i) environmental problems (*climate change caused by human activity, primarily by greenhouse gas emissions – carbon containing gases, chemical pollution, desertification and biodiversity loss*); (ii) depletion of natural capital; (iii) large-scale poverty; (iv) scarcity of fresh water; (v) food; (vi) energy; (vii) inequality among people and countries.

(22). All these jeopardize the very existence of present and future generations. The current model of economy is also called a "brown economy".

(23). To survive and further develop the humanity needs transition to "green economy", that is a system of kinds of economic activities involving production, distribution and consumption of goods and services, which lead to increasing wellbeing of humanity in a long-term perspective, without presenting significant environmental risks to present and future generations.

(24). The "green" economic growth strategy builds upon complementing each other aspects of economic, social and environmental policies.

(25). The "green" economy strategy includes all the values of natural capital as factor of production and provides for transition to resource-effective and low-carbon development based on a wider use of renewable energy sources including solar, wind, water and geothermal sources.

(26). The "green economy" focuses on profitable ways of mitigating environmental pressures to influence the transition to new growth patterns not crossing the critical local, regional and global environmental thresholds of sustainability.

II. PROPOSED MODEL OF "GREEN" ECONOMIC DEVELOPMENT IN THE KYRGYZ REPUBLIC

(27). All modern history of the Kyrgyz Republic is marked by reforms that are today represented as a response to challenges of the present. Promotion of these reforms is inevitable as everything changes in the world: economies which are increasingly getting a global character, life quality standards, which are more than ever are based on the concept of human rights, and environment which requires sustainable approach to its development.

(28). The image of future Kyrgyzstan is inextricably linked with the model of balanced sustainable development targeted at: (i) increasing citizens' life quality through creating economic conditions for decent work; (ii) effective democratic governance; (iii) favorable for life and health natural environment; (iv) protection of civil rights and achievement of gender equalities; (v) conservation and multiplication of cultural and moral values of people.

(29). A centerpiece and an ultimate goal of sustainable development is human. Therefore, both today and in the long-term perspective development of human capital will be an absolute national priority of the Kyrgyz Republic.

(30). "Green" development is a prospective course of sustainable development of the Kyrgyz republic in the long –term perspective.

(31). Underlying factors: (i) the country has certain potential of nature resources for the low-carbon development, mainly, through its hydropower potential; (ii) economic priorities of "green" economy (energy and agriculture) along with water resources are the main driving factors of the country's economic development; (iii) poverty level of population living in mountain territories (over 50%) and social tensions can be reduced through creating "green" jobs; (iv) the country has natural communities that have the stabilizing capacity of environmental situation in the country and Central Asian region.

(32). "Green" and low-carbon development model of the Kyrgyz Republic is proposed to be built on the following three interlinked components/priorities: (i) mountain ecosystems – as a source of water resources; (ii) mountain water – a source/resource for hydropower development as a carbon-free energy source; (iii) mountain water – a source/resource to meet the country needs and downstream countries for drinking water, agricultural irrigation and production of ecologically clean products.

(33). The period from 2010 to 2020 should become a turning point and defining for promotion of green economy initiatives for sustainable development of the Kyrgyz Republic in the long-term perspective. Under certain conditions by the year 2020 the Kyrgyz Republic should enter the list of countries successfully implementing a new sustainable development strategy with improved governance institutions, modernized technologies, effective legislation and advance environmental and economic thinking, improved social and economic ratings in the world development, including higher rating of human rights index in the Kyrgyz Republic.

(34). A competent and thoughtful integration of the "green" economic concept into country development strategies can really contribute to making Kyrgyzstan a pilot country on adaptation of green development initiatives in Central Asia and the Biosphere Territory "Issyk-Kul" having a relevant status of UNESCO, a pilot region within the country.

III. GEOPOLITICAL, SOCIAL AND ECONOMIC DEVELOPMENT ASPECTS OF THE KYRGYZ REPUBLIC

3.1. Geographic characteristics

(35). The Kyrgyz Republic is a mountainous Central Asian country, which is situated within two mountain systems – Tien-Shan (large north-eastern part) and Pamir-Alay (south-western part).

(36). On the north Kyrgyzstan borders with Kazakhstan (1,113 km), on the west with Uzbekistan (1,374 km), on the south and west it is separated from Tajikistan with mountains (972 km), on the east the country borders with China stretching about 1,049 km. Thus, geographically Kyrgyzstan lies along the former Soviet-China border from the north-east to the south-west, rounding up the Fergana Valley, most part of which lies within the territory of Uzbekistan.

(37). The area of Kyrgyzstan is 199.9 thousand square km. It has an extremely continental climate and the distance to nearest ocean is about 3 thousand km. The average height of Kyrgyzstan above sea level is 2750 m. More than 94% of the country territory is higher than 1000 m. above sea level.

(38). About 40% of its area is uninhabitable. These are – glaciers, permanent snow, rocks, alpine grave deserts.

3.2. Geopolitical situation

(39). Central Asia is a buffer zone between the Commonwealth of Independent States and the Asian-Pacific Region. Kyrgyzstan, as a part of this buffer zone, has to flexibly react the tendencies from both sides. The country is located in a border situation among 4 geopolitical systems: Russian (Eurasian), Islamic, Western and Chinese.

(40). The geopolitical situation of Kyrgyzstan is as following (i) in the north it borders with politically friendly Kazakhstan; (ii) in the south – Tajikistan and Afghanistan, Cashmere and Xinjian; (iii) in the east – China with significant demographic and economic potential; (iv) in the west – Uzbekistan, with which it maintains politically restrained relations.

(41). Neighboring countries, directly affecting the life in Kyrgyzstan are Uzbekistan, Kazakhstan and China; while as mediated influential countries remain Russia, Tajikistan and Afghanistan. The causes for a number problems like territorial disputes, trade barriers and protectionist trade policy, conflict situations in border areas, as well as drug trafficking from Afghanistan and Tajikistan, are connected with the nearest neighbors of Kyrgyzstan.

(42). There are American and Russian air bases in the territory of Kyrgyzstan. Kyrgyzstan is among those few countries, which are integrated at the same time in European and Eurasian structures: OSCE, EurAsEC, CIS, EBRD, SOC, OIC, OEC, ADB, IDB.

(43). Kazakhstan has no territorial disputes with Kyrgyzstan and the deficit of water resources and power energy in southern Kazakhstan promotes foreign relations with Kyrgyzstan. In general, an alliance of Kyrgyzstan with Kazakhstan could be an integrating factor for development of the entire Central Asian region.

(44). China is an economic giant having a problem of smooth transforming of economic reforms into political ones. The fast economic growth of China brings about in future a tough competition for natural resources of overall Central Asian region, including for energy too.

(45). Russia is interested in maintaining a stabile buffer zone, which is a natural cordon for spread of religious Islamic extremism. Due to sustainable economic and cultural relations that have traditionally developed over the decades, Russia will remain an economic partner of Kyrgyzstan for many years to come. Besides that, Russia has been a strategic partner of Kyrgyzstan in ensuring its security.

(46). Interethnic conflict that led to significant loss of lives and partial destruction of Osh city in June 2010 in the south of republic increased the interethnic tension both within the country and beyond it. Kyrgyzstan depends on Uzbekistan for gas, which is partly compensated by supplies of water from Kyrgyzstan to Uzbekistan.

3.3. Demographic situation

(47). The demographic situation in the Kyrgyz Republic during the last years was characterized by increase in birth rate, fluctuating mortality level and rise in external migration of foreign population.

(48). The resident population of the Kyrgyz Republic as of January 2011 was 5 million 478 thousand people, 49.4% of which are men and 50.6% are women. Slightly over one third of population live (34 %) in urban and about two thirds (66 %) in rural areas. The average density of population is 27 people per kilometer square. The most densely populated regions are Chui ob-

last and Bishkek, a capital city, where almost one third of population is concentrated (859.8 thousand people, more than 80 people per square kilometer). There are more than 90 nationalities live in Kyrgyzstan, most numerous of which are Kyrgyz (69 %), Uzbeks (15 %) and Russians (9 %).

(49). Prevalence of severe topography creates certain conditions for living in foothills, flat lands and valleys where the population is mostly concentrated. In accordance with the bioclimatic zoning about 4 million people (79 %) live on 17% of the territory which is considered a comfortable zone for life activity. 1 million people (19%) live on 19% in the territory of the so-called moderate or compensable comfort at the height of 1,500-2,000 m. The rest 2 % of population live at the height more than 2,200 meters in no compensable bioclimatic comfort.

(50). The population of Kyrgyzstan is young in terms of the demography: 33% of total populations are children and teenagers, 59% are working age people and 8% older than working age people. According to UN the population is considered old, if the proportion of people older than 65 exceeds 7%. In Kyrgyzstan, only 5.3% people are in this age, which allows referring it to countries with younger population. Average life expectance is 67. 9 years, with average life expectance 63.7 for women and 72. 3 for men.

(51). According to forecasts of UN Population Fund the population of Kyrgyzstan will achieve 8 million people by 2025, what will make worse the problem with food and energy security of Kyrgyzstan.

3.4. Social aspects of development. Indicators of life quality.

(52). Over the last five years in the social sphere of the state there has been a noticeable increase in the main indicators of living standards for population. Thus, in 2006-2010 average income per household rose by 2.2 times. In 2010 incomes of urban population exceeded those of rural residents by 1.1 times and made up 2,683.1 and 2,385.7 som per month per capita.

(53). **Living standards of population and poverty.** Minimum subsistence level in 2010 was 3,502.65 som per capita monthly, which in 2006 has risen against the minimal consumer budget by 47.3%. Nominal average monthly salary in 2010 rose by 2.2 times compared to 2006 and made up 7,189 soms. The generalized coefficient, characterizing the life quality of the country residents, during the period from 2006 to 2010 has noticeably improved from 1.4 to 2 times.

(54). Average size of pensions rose by 3.2 times against the level of 2006 and made up 2886 soms in 2010 **(***91.7% from minimal consumer budget of a pensioner).* Increase of nominal size of salary was due to the effect of regulatory acts adopted by KR. Total number of pensioners as of 01.01.11 made up 10.5% from the total number of de facto population of the country (575 thousand soms).

(55). The results of KR population well-being assessment indicate that poverty rate estimated by consumer expenses, went down from 39.9% in 2006 to 33.7% in 2010, i.e. reduced by 6.2 % .

(56). Poverty level in rural area in 2010 was 39.5% and increased by 2.4% against the level of 2009, in urban areas this indicator has risen by 1.7 percentage points to make up 23.6%. 1,846.2 thousand people lived beyond the poverty level in 2010, 74.4% of which were residents of rural settlements.

(57). Despite there has been a substantial decrease in poverty level in the country as a whole, there are significant regional differences in poverty level. Poverty is spread across regions unevenly. Growth of poverty level in 2010 took place in many regions of the country and in the country as a whole. Positive changes in improving the well-being of population have been ob-

served only in the Issyk-Kul oblast, where the poverty level compared to a previous year went down by 8.1 percentage points and in Bishkek by 5.4 percentage points. Poverty level in Naryn oblast increased by 9.4 percentage points, in Talas oblast it was by 9.3 percentage points. The increase of poverty level in Djalal-Abad oblast was by 7.8 percentage points and in Osh it increased by 3.6 percentage point.

(58). Availability of housing is the indicator of an exceptional importance in assessment of living standards quality of population. Most part of the population in Kyrgyzstan regardless of their poverty level have their own houses (96%). Over 45% of KR population has on average from 10 to 20 m² of living space per capita. However more than 53% of very poor population has from 5 to 10 m² of living space per capita.

(59). There is significant difference in the level of comfort between urban and rural households. Electricity is the only public service covering all the territory of the country. Only 33.5% of urban households are connected to centralized heating system, while rural households almost are not connected at all (1.3%), i.e a centralized heating system is an exceptional housing benefit for urban residents. Access to natural gas pipeline networks is available only for 20.9% of households, 52.2% of which are urban households and almost all (slightly less than 94%) rural households do not have access to centralized gas pipeline. Because of insufficiently spread gas pipelines across the country territory almost all rural population of the country do not have access to centralized gas supply. Centralized water supply is available for 25.7% of households. Percentage of urban households having access to central water supply is by 42.5% is higher than rural households.

(60). An equally important impact on public health has clean drinking water, the access to which is unavailable for 13.2% of rural population, who drink water from rivers, springs and irrigation ditches, what presents serious threat to their health. In general, access to clean water in the country is estimated at 92%.

(61). **Healthcare.** In 2010 there were 24 physicians for 10 thousand people against 25 in 2006 and 54 nursing staff against 57 in 2006. Outflow of medical staff in this period was explained by worsened labor conditions of medical staff, especially in rural areas.

(62). Despite that, with support of the international the Kyrgyz Republic could provide high-level of immunization of population (95.5%) in 2005-2007, what allowed by 2009 to reduce incidence of measles to 1 case, and in 2010 there was not registered any case of this disease.

(63). There has been a significant decrease in the tuberculosis incidence. During the period of 2006-2010 the incidence of tuberculosis reduced by 17%, (from 121.9 to 101.1 cases per 100 thousand population), whereby incidence among children went down from 44.0 to 32.3 per 100 thousand population of the same age. Also malaria cases were significantly decreased, which fell from 6.2 per 100 thousand of population in 2006 to 0.1 in 2010). At the same time in 2006-2010 there was a rapid rise in cases of viral hepatitis by 39%. Over the recent year there were outbreaks of typhoid fever, acute intestinal infections caused by poor quality or lack of drinking water in rural areas.

(64). The proportion of women who gave birth in hospital environment in 2010 was 99.4%. Since 2002 there was some increase in the birth rate, which is explained by the increase in the number of women in the most favorable reproduction age – 20-29 years old, which account for more than 65% infants born in 2010.

(65). Despite the poverty level, almost all women give birth in hospitals (maternity hospitals, maternity departments), what reduces the risk of maternal and infant mortality. However, maternal mortality level still remains high. Despite the fact that this indicator reduced to 50.6 cases per 100 thousand live-born against 53 in 2006, during this period there was a splash of maternal mortality up to 75.3 cases per 100 thousand live-born. However almost 80% maternal death cases are registered in rural areas.

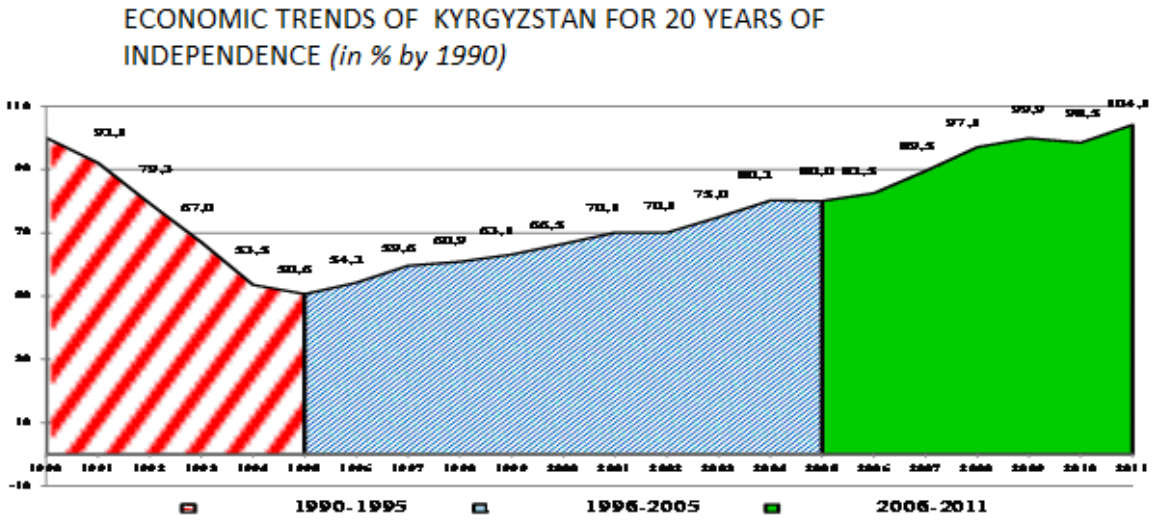
(66). **Education**. There are more than 860 state and alternative pre-school organizations covering about 80 thousand children of relevant age, 2,197 general education institutions with 1 mil-

lion 18 thousand students, 122 vocational schools with 64 students and 52 higher education institutions with 230 thousand students in the education system of the Kyrgyz Republic.
(67). Thus, out of 5 million people of Kyrgyzstan more than 1,300,000 people are directly engaged in education process. On the one hand it can ensure high level of human capital in the country and on the other hand it will require huge budget expenses and the need for increasing quality of educational services. The results of the census in 2009 showed that educational level of population in Kyrgyzstan is quite high. If in 1999 literacy rate of population was 98.7%, in 2009 it rose to 99.2%.
(68). According to data of this census 16.0% of 15 years and older population have either higher or undergraduate education, 7.1% - secondary vocational education, 58.0% - full secondary education and 11.9% - basic general education (8-9 years). Only 5.4% of total population had only primary education, 1.7% did not have that, of which 28.4 thousand people or 0.8% of adult population is illiterate.
(69). **Labor market considering a gender factor. Women employment.** The Kyrgyz Republic is characterized by a high-level employment of women. In 2010 the number of employed women was 926 thousand people or 47.1% of total employed population. The proportion of women among employed population is the most high in service sector, particularly, in such areas as healthcare and social services (80%), education (76.6%), hotels and restaurants (71%), provision of municipal, social and personal services (56.7%). However, their share in leadership positions is small. If women make up 47% of the total employed population, they account for only 32.4% of leaders at all levels.
(70). In general the labor market of Kyrgyzstan over the last several years continues to have excess capacity available. General rate of unemployment in 2010 made 8,6%, among women this reaches almost 10%, while the level of unemployment among men was 7,7%.
(71). The world economy currently is still in the state of uncertainty as to the further development vector. The situation is exacerbated by a range of mutually reinforcing challenges such as climate change, rising prices for basic food commodities; a widespread deterioration of biodiversity; falling water availability; growth of industrial accidents; increase in privatization of revenues and socialization of costs and risks, etc. All these complicate the pressing social problems and lead to further job cuts, violation of labor standards, insecurity and poverty and thus give a new round of pressure on the environment.
(72). Many countries, which have experienced modern crisis of recession and massive job losses see "green" economy, as an alternative to current approach to economic development. This economic system aims to increase social well-being and social security with simultaneous reduction of environmental risks.
(73). In the context of promoting “green” economic development in Kyrgyzstan, agricultural production, strengthening water management system, healthcare and education, should be considered in the first place as these areas have a big social importance.
(74). Of great importance would be the use of tax system as a tool to stimulate “green” economic development, which is aimed at encouraging transition of production to environment friendly technologies. Implementation of this approach into the country tax system will result in a number of positive effects. In particular, reducing tax burden will make transition to environmentally clean technologies more attractive for domestic businessmen and attracting investment for their further development. Besides that, it will be an incentive for population of the country to open new businesses based on ecologically safe technologies that will have positive effect on increasing employment, living standards of population and poverty eradication.

3.5 Economic development of independent Kyrgyzstan

(75). Over 20 years of independent development of Kyrgyzstan, a small state with developing democratic traditions, could overcome shocks and setbacks and to maintain a position for promo-

tion of sustainable development principles, which clearly marks three stages: 1) 1992-1995; 2) 1996-2005; and 3) 2006-2011.



(76). First stage (1992-1995): Almost all post-soviet countries had experienced economic recession, which reached the critical point in 1995. Kyrgyzstan was not an exception and GDP during this period had really dropped and halved the level of 1990. Our economy then has closely approached the economic security threshold. Especially, breakage of economic relations affected the functioning of the industry, as the most dependent sector of economy on imprit of raw materials and component parts.

(77). Compared to other CIS countries with larger domestic markets and closeness to transport arteries, in the Kyrgyz Republic these important sustainable development criteria were much lower. Therefore, it has been a logically correct choice of the development model for Kyrgyzstan as a small open economy with speeded up promotion of structural reforms.

(78). During this period, there has still been an industrial-agrarian economic development model of Kyrgyzstan but by 1995 the ratio of industrial production in GDP structure has decreased from 26% to 11%.

(79). The first stage of structural reforms by the end of 1994 and by the beginning of 1995 showed that Kyrgyzstan took a leading position among CIS countries by intensity of structural changes and building market economy. According to international manuals the efforts of the Kyrgyz Republic in such areas as privatization of government property, liberalization of prices and foreign trade were assessed as accelerated and significant and the reform of public administration and budget consolidation as moderate.

(80). The deep economic crises in this period resulted in a sharp decrease in life quality and worsening of poverty, a new social phenomenon for Kyrgyzstan and for all CIS countries. This indicator in 1995 made up 55% and exceeded the level of economic security.

(81). Second stage (1996-2005): 1996 has become a turning point that marked an economic upturn after prolonged recession, and production in GDP has increased by more than 7% due to putting gold mining deposit into operation.

(82). The second period was exceptionally important in terms of strengthening the frameworks of market economy as a result of quick promotion of structural reforms in the most important development areas.

(83). The ongoing country reforms received a major support from international financial organizations, which provided assistance in overcoming hyperinflation, rehabilitation and reorganization of industrial and agricultural sectors of economy, in financial sector, in improving of corpo-

rate management in healthcare and education sectors, as well as in implementation of investment and technical assistance projects.

(84). Investment credits directed for rehabilitation of transport and energy infrastructure, agricultural development and private entrepreneurship, had direct impact on the economic growth. Average annual increase of GDP in 1996-2005 made up 4.7%.

(85). The agrarian sector and service industries have become dominating sectors ensuring economic growth. Their specific weight in GDP production structure made up almost 70%. Although specific weight of industry in GDP has grown between 1996-2005 from 11% to 18%-20%, it has not become a dominating sector in the GDP of the country. This was a period, when a sustainable service-agrarian development model of the Kyrgyz Republic was formed.

(86). 2005 has become one of the politically difficult years in the history of the country. The events of 24 March 2005 have undermined the social-political stability and sustainability of national economy, which despite pessimistic forecasts of independent experts, could avoid the deep recession. In 2005 the real volume of GDP was at the level of 2004.

(87). During this period Kyrgyzstan entered the list of developing countries supported by IMF programs, which declared to fight poverty through economic growth and quality state administration. The result was reduction of poverty in this period from 55 % to 43% in 2005.

(88). Third stage (2006-2011): Starting from 2006 the economic situation has gradually stabilized and there has been a GDP growth by 5.6% between 2006-2009. High rate of economic growth has been observed in 2007-2008 at the level of 8.5%, despite the inflation upsurges informing about the beginning of the world financial crisis. However, despite the sharp decrease in aggregate demand the positive economic growth rate is saved at 2.3%.

(89). The 2010, a year full of tragic events, has become a year of challenge for the country and marked a new milestone in development history of Kyrgyzstan and its economic system. Pessimistic expectations after the April and June events changed for more positive expectations as early as by September.

(90). During this period (2010-2011), despite the deep shock, the social policy was invariably directed at full implementation of guaranteed social commitments by the state.

(91). However, the poverty level after dropping to 31.7% in 2008, has risen to 33.7% in 2011. Considering that poverty issue demands a comprehensive approach, the Government of the Kyrgyz Republic is intended to provide an equitable access of population to sources of economic growth and target the pro-poor economic growth. The ongoing reforms of public administration, including the fight with corruption, will contribute to transparent management of budget forming processes and their effective management in the interest of poor population.

(92). The Government will focus its activity on social development and apply more productive and effective approaches in social protection policy, real support to meet the people's basic needs. The Government is planning to hold reforms in social protection, healthcare, social insurance, education, labor market and gender policy areas. The main concern of the state in the coming years will be children in difficult life situations, disabled people, elder people and people in the risk group (homeless).

(93). The course taken up for wide scale reforms of public administration is aimed at minimization of government interference in business.

(94). Structural and investment policy will gradually shift to principles of minimizing nature intensity. Reduced nature intensity will allow to organically link the two processes in the economy: (i) reduce consumption of nature resources and pollution level; and (ii) simultaneously will increase the quality of economic growth through modernization and improvement of technologies, introduction of low-waste and resource saving technologies, recycling of wastes. Both these areas will undergo drastic economic restructuring for the benefit of nature saving and science intensive kinds of activities.

(95). Launching of major national and investment projects along with preliminary analysis of costs and benefits will include compulsory strategic environmental assessment (SEA). If benefits

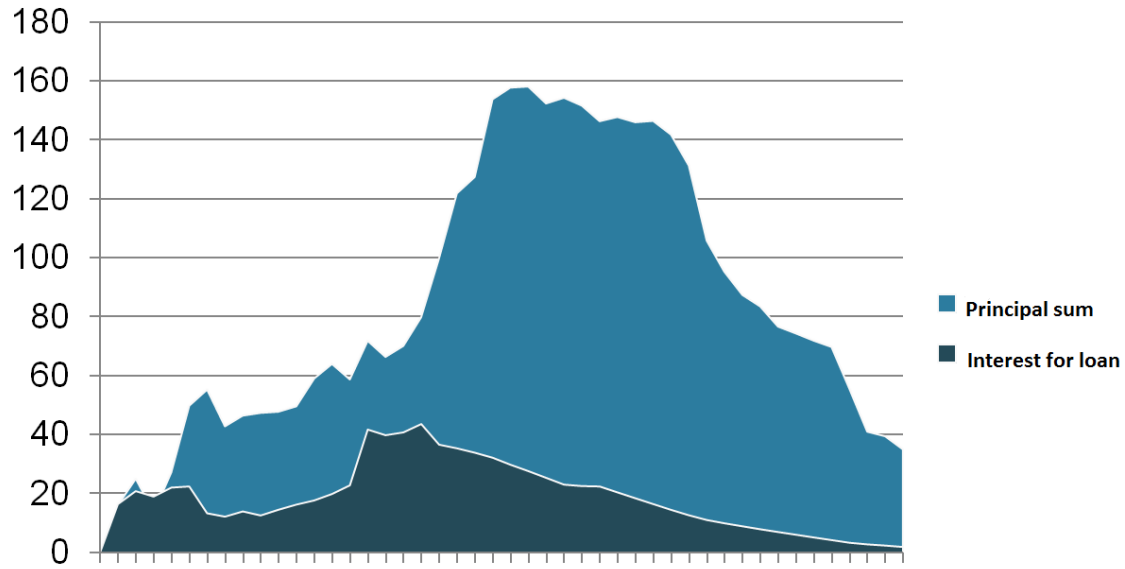
overweigh the costs with minimal ecological risks, such projects will be put forward as the drivers of green growth without damaging the environment and maintaining social stability.

3.6. External debt of Kyrgyzstan

(96). Difficult socio-economic situation in many poor mountain states are worsened by the fact that in attempt to develop their economies they have to take large loans from developed countries or international financial organizations. This debt burden is becoming overwhelming as they significantly reduce the countries capacities to fund such important social spheres as education, healthcare and environment. Large volumes of foreign debt also lowers the interest of investors for development of national economies, what undoubtedly, is the limiting factor of sustainable development of developing countries and directly impact the poverty level of mountain countries.

Creditor	2012 (May)
Bilateral loans ODA (Official Development Assistance)	1,080,104
ExIM Bank of China	335,059
France	5,897
Japan	342,323
Germany	69,713
ExIm Bank of Korea	15,076
Kuwait Fund	12,036
Russia	300,000
Bilateral loans (not ODA)	250,038
Denmark	3,348
Germany	7,674
Russia	189,652
ExIm Bank of Turkey	49,226
Belarus	138
Multilateral loans ODA	1,503,922
International Monetary Fund	172,662
OPEC Fund for International Development	1,672
Asian Development Bank	586,590
World Bank	670,972
Islamic Development Bank	62,325
International Fund for Agricultural Development	9,319
North Development Fund	6,009
Multilateral loans (not ODA)	15,416
European Bank for Reconstruction and Development	16,621
TOTAL:	**2,857,593**

(97). It is necessary to note that external debt servicing is actually becoming an overburden since rescheduling of debts will increase in the nearest future. Thus in 2019 this amount will rise up to 187.6 million USD.



IV. PRIORITIES FOR "GREEN" DEVELOPMENT IN THE KYRGYZ REPUBLIC

4.1 Mountain ecosystems

(98). "As a major ecosystem representing the complex and interrelated ecology of our planet, mountain environments are essential to the survival of the global ecosystem". (Agenda 21).
(99). More than half of Kyrgyzstan's territory lies at an elevation higher than 2,500 m. above sea level, and only 1/8 of the country is lower than 1,500 m. Glaciers cover almost 4% (8 thousand km²) of the country territory, which accumulate 650 billion m³ of fresh water.[1] The latest observations show that under the impact of climate change the area of glaciers has already reduced by 20%.
(100). According to scenarios of climate change, the world tendency of rapidly shrinking glacial areas will have a constant character and can lead in 21 century to deglaciation of significant parts of many mountain regions, including Kyrgyzstan, with all ensuing consequences both for mountain and lowland countries. In particular, runoff of surface water will be reduced both for mountainous countries and downstream countries located along the transboundary rivers.
(101). These tendencies are already affecting today the lives of millions of people living in mountainous countries. Intensive melting of glaciers and changed temperature regime entails shifting of hydrology cycle, frequent cases of landslides, floods, mudflows taking numerous human tolls and having huge damage on the economies of mountainous countries through reduced biodiversity an other negative consequences caused by global climate change.

(102). In future all this will impact the level of traditional household and agricultural management, water supply, tourism, relations between countries sharing transboundary rivers that originate from glaciers and snow caps of mountain ecosystems.

[1] National Science Academy of KR, Atlas of the Kyrgyz Republic , 1987

(103). Two thirds of the country population lives in mountain territories with limited transport and social infrastructure and the government provides them with support and subsidies from the budget as the economic development in mountain areas is extremely difficult.

(104). **Mineral resources** of Kyrgyzstan are characterized with different minerals deposits, which considering the environmental safety also contribute significantly to economic development. Share of gold mining in GDP makes up 11%, 40% in industrial production and 48% in export of the country. However, finiteness of mineral resources demand from the state calculation of costs and benefit from their exploiting in the long-term perspective taking into account their withdrawal from the nature capital balance. Another element of costs and benefits assessment are the toxic waste tailings in the territory of the country abandoned by shutdown enterprises and that demand significant financial investment for maintenance of them in proper state and to avoid their negative impact on environment.

(105). Mountain ecosystems of Kyrgyzstan and Tajikistan are the water towers for all the Central Asian region. Almost 90% of Central Asian population depends on water falling from mountains, where they are stored in glaciers and snow caps before flowing downstream to populated areas.

(106). **Mountain forests** (1,116.56 thousand ha or 5.61% of country territory) play an important role in accumulating and regulating of water resources and help combat soil erosion through reducing and leveling of surface runoff and transferring them into ground waters. By regulating of runoff and creating natural barriers, mountain forests also protect populated areas and transport infrastructure from natural disasters, such as landslides, floods and avalanche.

(107). Despite their relatively small areas, forests of Kyrgyzstan play a key role in ensuring environmental sustainability and forming of a climate. These ecosystem services can not be provided in such effective way by other natural ecosystems.

(108). Forests represent an important recreational and aesthetic resource, which are necessary for development of tourism sector. Ecological tourism was identified as one of the most promising areas of local economic development and eradicating poverty of mountain communities.

(109). Forests deposit carbon and by this reduce concentration of greenhouse gases in atmosphere. Potential of forest growing is also considered as one of the opportunities for generating incomes for local communities in mountain areas.

(110). There is a large variety of forests concentrated in Kyrgyzstan; by their concentration they have no analogues in other countries of the region. These are juniper, pine and fir tree, maple, small-leaved, walnut, pistachio, and almond tree forests. All of these forests play an essential role in conservation of biodiversity. Walnut and spruce-fir tree forests have a global importance as the largest and preserved relict woodlands.

(111). Presence of natural mountain forests warrants to inclusion the territory of Kyrgyzstan into the list of key ecological regions on the planet. Walnut, pistachio and almond forests keep in itself a rich genetic resource of ancestral forms of cultural variety of walnut, apple trees, plum trees, grapes, cherry plum, almond and pistachio, which are necessary for breeding of new varieties.

(112). Due to the scarcity of reserves and a special role in maintaining environmental stability, mountain forests can not be considered as highly productive forests in terms of producing com-

mercial timber. Widely practiced livestock grazing in them and other kinds of use prevent natural regeneration of forests.

(113). Small-leaved forests experience the highest anthropogenic pressure (with density of population 62.40 person/km²), which mainly grow in river beds. The continuing tendency of displacement of population in river valleys results in their degradation and replacement by crop lands.

(114). Unsustainable use and ineffective management of forest resources have had negative effects on forest covered area of the country. To the highest extent the state forest fund of the republic has suffered in the period between 1925-1950, when 5.5 million m³ have been logged in coniferous forests only. During the same period average annual logging was 229 thousand m³ against 74.7 thousand m³ of its growth. Forest covered area had been reducing until 1996 and only in 1978, it started extending from 654.1 thousand ha to 769.5 thousand ha in 1993 and by 1999-2000 the forest areas reached 849 thousand ha through transformation of forest plantations into forest covered lands.[2]

(115). On the other hand, discontinuance of sylvicutural activities has led to emergence of a clear trend for aging forests. This, first of all, refers to age structure of spruce forests, where up to 49.9% of stands are made up of mature and over mature forests, while young forests make up only 7.8%.[3]

(116). **Mountain pastures** (9 million ha or 48% of the country territory) traditionally have been a basis for development of livestock breeding in Kyrgyzstan and an important source of income for rural residents that make up a majority of the country population (65%). However, according to data from different sources the area of degraded pastures make up from 30 to 50%.

(117). The main reason for degradation of mountain ecosystems is excessive unregulated livestock grazing. While regulated grazing is important for sustainable regeneration of grass ecosystems, overgrazing leads to their complete degradation up to a substitution of them by non-productive and irreplaceable bad lands.

(118). Currently the average productivity of pastures dropped to 40% from the norm and productivity of community pastures decreased up to 10-20%. Structure and species composition of herds do not contribute to rational management of pastures.

(119). The mountain ecosystems of Kyrgyzstan provide a rich potential for the green development (agriculture, hydropower), which currently is not being used adequately. At the same time the mountain landscape causes high costs of social infrastructure and lack of investment in mountain areas, what in its turn is the reason for high poverty level among mountain communities.

(120). Now, when the situation in the country has stabilized and returned to the legal field, is high time for Kyrgyzstan to restate its position on sustainable mountain development and create conditions for increasing confidence level in the country from the international community and to attract investors to our country.

[2] Forest inventory and records of State Forest Service of KR (1993-1998).
[3] O.V. Kolov, T.S.Musuraliev. Comprehensive Solution of Sustainable Biodiversity Conservation and rational Management of Forest resources in West Tyan-Shan. Biological diversity of the West Tien-Shan, Bishkek, 2002, pp.166-169

4.2 Threats for loss of ecosystems

(121). Among natural factors influencing sustainability of ecosystems and biodiversity, continuing aridization of climate of Central Asia and mountain relief should be highlighted. Both of them put biological communities under extreme conditions for survival.

(122). The very existence of life on steep mountain hills demand on average 1.5 times more energy costs than in similar climatic conditions in flat land. Significant part of the territory almost half a year lies under a snow cover. Continental climate shows itself in sharp change of daily and seasonal temperatures and drastic change in the character of humidity. Aridization leads to desertification, reduced productivity of vegetation, a basis for life reproduction, and complication and discontinuance of reproduction and restoration of slope forests and other moisture-loving communities.

(123). Human-induced factors worsen the negative impact of natural factors. Direct withdrawal when logging trees and shrubs, picking up medical and decorative plants, hunting, fishing and haymaking is supplemented by indirect impact of environmental pollution, destruction of habitats when transforming them under arable lands, roads, populated areas, mining enterprises and water reservoirs, etc.;

(124). The result is fragmentation and reduction of habitat, decrease in the number and reproduction of species. Biological diversity is a prerequisite for sustainable functioning of ecosystems. One of the main areas of environmental activities is conservation of rare, endemic and endangered plan and animal species. The Red Book of Kyrgyzstan (2007) includes 57 bird species, 23 mammals, 2 amphibians, 8 reptiles, 7 fish species, 18 jointed-footed animals, as well as 87 species of higher plants and mushrooms that are under the risk of extinction. This list needs to be added.

4.3 Water resources

(125). Water as a source of sustainability and well-being of the country can be multiplied only in the context of natural ecosystems and glacial protection in Kyrgyzstan.
(126). The Kyrgyz Republic is the only country in Central Asia, water resources of which are formed within its own territory and this is its hydrology specifics and advantage. Kyrgyzstan possesses significant underground and surface water resources, the reserves of which are stored in rivers, glaciers and snow fields.
(127). Water resources of the country play an important role in environmental and economic sustainability of the entire Central Asian region. There are 3500 rivers in the country, which belong to major basins of Syrdarya, Amudarya, Chu, Talas, Ili, Tarim Rivers and Issyk-Kul Lake. Water resources of these rivers flow across the territory of the Kyrgyz Republic and go to other states of central Asia. Total annual runoff of rivers in Kyrgyzstan are 48-50 km³. The Kyrgyz Republic uses 20-25% of all available water resources and the rest of water goes to the territory of neighbouring states: Kazakhstan, Tajikistan, Uzbekistan and is the subject of water sharing. Sharing of river runoff between Kazakhstan, Tajikistan and Uzbekistan is based on the principle of “equal supply of water per irrigated hectare”. Kyrgyzstan has the right for using up to 24% of water and the total limit is 11,9 km³.
(128). Water resources, accumulated by mountain ecosystems of the country, are the source for (i) consumption by population as drinking and irrigation water; (ii) development of energy sector; (iii) agricultural development and (iv) other production sectors of Kyrgyzstan’s economy.
(129). Water as a strategic resource for green economic growth of the Kyrgyz Republic can be used and multiplied in a rational way, as a renewable nature resources, first of all through protec-

tion of mountain glaciers, nature complexes, and natural ecosystems around the rivers of Kyrgyzstan. However, it does not diminish the need for increasing efficiency of water consumption.
(130). Water is one of the key factors of social-economic well-being of Central Asian countries and therefore water resources of Kyrgyzstan are the subject of interstate interests. Neighboring states of Kyrgyzstan need water for irrigation purposes mainly in summer vegetation period. The current deficit of energy resources in the country, makes it more profitable for Kyrgyzstan to discharge water from reservoirs in winter period, when the volume of energy consumption in the country increases significantly. Change of water use regime in one country inevitably affects the interests of other countries.
(131). Therefore, today in the context of global climate change, there arises urgent need for development, institutionalization and implementation of policy that will allow increasing the efficiency of water management as a strategic resource to meet the needs of Kyrgyzstan and overall Central Asian region. One of the measures to ensure conservation of nature water capital could become declaring of water streams forming areas as specially protected nature areas. Expansion of forest covered areas, especially, around main and secondary water arteries of Kyrgyzstan can also be used as a measure to contribute to increasing water capacity of the country.
(132). More than 90% of water resources in the republic are used for irrigation and agricultural water use. However, major part of taken water is lost during transportation. In the period of between 2006-2010, average loss of water during transportation made up 1.852 million m^3 per year or 23 % of total water intake volume. The reason is the poor technical state of irrigation and water distribution systems, worn out facilities, use of ineffective irrigation methods. In this view, one of the important areas of greening Kyrgyzstan's economy is increasing efficiency of domestic use of water resources, reducing losses and introduction of new calculation and irrigation methods.
(133). In resource limited settings it is important for Kyrgyzstan to join international initiatives aimed at conservation of mountain glaciers and natural ecosystems. An important milestone in international cooperation could be support rendered for modernization of water management system, as well as rehabilitation and construction of irrigation systems for increasing access to irrigation water for poor population, living in mountain territories, where any development of infrastructure is too capital intensive.

4.4 Hydropower

(134). 90% of electric energy in the Kyrgyz Republic is generated by hydropower stations, which greatly increases the attractiveness of hydropower sector of the country for "green" investors concerned about the conservation issues of nature capital for future generations.
(135). Gross hydropower potential of 267 rivers of Kyrgyzstan exceeds 245 billion kWt/h of power energy[4]. However, experts have lately been making distinctions in descriptions of the country hydropotential, clearly distinguishing between gross, technological and economic ones. The data as follows: technological hydropotential – 132.6 billion kWt/h, economic – 60 bln. kWt/h.
(136). Development of the country hydropower should be based on relevant studies, analysis and long-term forecasting of increase in energy consumption by population in linkage with the economic growth and export potential for assessment and elimination of risks of energy deficit in the long-term perspective. Assessment of hydropower potential should take into account observed and expected impact of climate change on water resources of the republic, what will allow to assess factual opportunity for growth of hydropower sector in future.
(137). Today power generation by the existing HPP of the Kyrgyz Republic makes up about 12,5 million kWt/h. Electric energy accounts for 5% of GDP and 16% of industrial production of the country.

[4] Institute of Water Problems and Hydropower, National Science Academy of KR, 2000

(138). Power network provides 100% access of population to electric energy with 5% share in the export structure of the country. Physical and moral deterioration of equipment has reached the size (over70%), which present high risks for sustainable functioning of the sector. The number of accidents and failure of energy equipments exceed the norms, especially during the peak seasonal loads.
(139). To rehabilitate fixed assets of energy sector it is reasonable to use a mechanism of transferring energy companies taxation for target principles and introduction of "green" tax.
(140). The level of energy intensity of GDP in Kyrgyzstan makes up 1.1 of fuel equivalent ton per 1,000 UDS. By contrast, this indicator I developed countries make up 0.09-0.18, and in developing countries it is 0.22-0.74.
(141). The quality of corporate management of energy companies remains low.
(142). The problem of sustainable power supply in winter period in northern regions has not been sufficiently addressed, when there are peak seasonal overloads. Lack of internal energy ring of high-voltage transmission lines connecting South and North, make the problem rather difficult.
(143). Another issue of concern is that demand for energy in Central Asian region and potential of water resources in Kyrgyzstan create conditions for their joint use with neighbor states in Central Asia (Uzbekistan, Kazakhstan) through direct investments into major energy investment projects.
(144). Achievement of a long-term financial sustainability and creating attractive investment environment is planned to achieve through reforming of tariff policy, which must cover all justified costs, exclude cross subsidies and give a signal to market-based functioning of the country energy sector. Success of implementing new tariff policy will depend on adequate measures of social protection of low-income population and wide-scale explanatory works with population.
(145). Tariffs in future will keep balance of all aspects of social development, including access of poor population to these services, financial sustainability of energy sector companies, purposes of stimulating growth of real economic sector and targets of energy saving policy.
(146). Losses of electric energy in power distribution networks of the Kyrgyz republic are gradually going down but still remain high and made up in 2011 about 22%. In this regard, increasing efficiency of electric energy use and reducing losses, are becoming more important than construction of new power stations working on solid fuel. So in 2010 volume of losses made up 2,327,578.8 thousand kWt/h, generation of electric energy at the biggest Thermal Power Stations in Kyrgyzstan is 787, 200,0 thousand kWt/h.
(147). Development of energy conservation remains a priority of national policy. Measures will be targeted on establishment and improvement of standards and regulatory requirements on energy saving for all sectors of economy and non-production sphere. Also programs of financial incentives will be developed for stimulation of energy saving. Special attention will be paid to explanatory works among population and entrepreneurs about energy saving policy.
(148). The work will be continued on promotion of cooperation in water, fuel and energy sectors of Central Asian region. To this end further efforts will be taken on conservation and ensuring sustainability of CA OEC and action plan will be developed to increase the quality of services for CA OEC on regulating dynamics and efficiency of water management in Toktogul water reservoir.
(149). Development of small and medium-size energy will be encouraged through adoption of legislative measures aimed at increasing economic attractiveness of small hydropower development and use of non-traditional renewable energy sources.
(150). One of the development tools will be a tariff compensation mechanism during production of electric energy by mini HPP and renewable energy sources. A programme on promotion of RES will be developed with pilot projects on generating power from alternative energy sources like solar, wind and biogas equipments. Development of special measures on increasing energy efficiency and energy conservation both at the level of major productions and at household level,

will be carried out by strengthening at the same time a synergy of promoting sustainable energy for all.
(151). International cooperation in hydropower sector is possible, first of all, in technological modernization area of energy sector management potential of the energy sector. or, as well as in improvement of fiscal-tariff policy and strengthening management potential of energy sector.

4.5 Agriculture and processing of agricultural products

(152). Agriculture is one of the main occupation of humankind as food is a daily vital need of people. History, culture and social values are reflected in agriculture. According to studies of UNEP agriculture is one of the 10 key sectors of investment, what will allow to transit to low-carbon, resource-effective "green" economy.
(153). On a global scale developing "green" economy presupposes annual investment into agriculture from 100 to 300 billion USD up to the year 2050 to provide 9 billion. People with food and at the same time to improve soil productivity, ensure sustainable use of water resources and improve management of biological resources.
(154). The Kyrgyz Republic is an agrarian country with 66% of population living in rural area, where the poverty level is higher than in urban area, which depends upon agricultural production considering the biological and chemical safety. Poverty level is particularly high in rural areas, therefore Government expects that creating conditions for rapid growth in agricultural sector can give good results in terms of employment growth and poverty reduction in rural areas and production of ecologically clean products.
(155). However, agriculture has a lot of problems that impede its development. Kyrgyzstan has a low level of self-sufficiency with main kinds of food products. Agricultural and arable lands and pastures are degrading and water resources are used ineffectively with extremely high losses.
(156). Government support for seed farming and pedigree stock breeding, phytosanitary and veterinary, amelioration and other agricultural services bear a limited character. Crop and variety rotation, structure of cropping are not observed and the level of agriculture needs improvement. These put obstacles to increase of plant and animal productivity.
(157). Access of rural producers to financial resources remains an important problem despite the support provided by the government. The problem with collateral security for received credits limits the access to bank loans. Land plots for now can not be used as a collateral as the land market in Kyrgyzstan has not formed yet.
(158). Farmers experience big problems in marketing of their products. One of the reasons is a lack of forecasting information about the market of agricultural products to be able to identify the structure of crops.
(159). The growth of agricultural products processing volume is very slow. Negative impact on export of food products is caused mainly by insufficient certification level of domestic agricultural products and processing that fail to meet the needs of the sector.
(160). Cooperation among farmers, development of agro-industrial clusters, interaction between agriculture and processing industry need support. Potential parties of cooperative relations are not satisfied with legal and economic terms of cooperation.
(161). Agricultural sector develops beyond the principles environment-friendly growth and has low productive potential, low efficiency and adaptability to changing climate conditions.
(162). However, agriculture (16,1%) is the second biggest economic sector after the energy sector (74%) on emission of greenhouse gas. Although agricultural lands along with forest resources serve as a sink of carbon dioxide from the atmosphere. In 2005 there have been absorbed 0.71 million tons of CO_2.
(163). Share of agriculture in GDP of the country in 2011 (according to preliminary NSC) was 18%, which is by 0.6% higher than in 2010. Over the last five years there has been a steady decrease of agricultural share in GDP of KR - if in 2006 it was 28.7%, in 2009 and 2010 it fell to

22.1% and 17.4%, respectively. In 2011 livestock sector accounted for 46/2%, crop production for – 52.1 % and service sector for 1.7 % of the total production.

(164). This sector of economy has been and will remain a national economic priority of the country. From the perspective of poverty reduction agrarian sector is the priority number one as it employs most (over 70%) part of poor population with low qualification and education level that could not find jobs in other sectors of economy with higher level of income.

(165). As a result of reforms that started in 1990s there have been demised 576 collective and state farms, which were replaced by farm enterprises as a basis of private ownership institute in agriculture. Currently 2,665,400 people have their own land plots or 54% of Kyrgyzstan's populations have become the owners of agricultural land plots. As of the 1st of January 2012 there were 505,1 thousand of functioning economic entities in the territory of Kyrgyzstan, 54% of which (271.1 thousand) are peasant farms and farm enterprises. They account for the main part of agricultural production (58.6%). The remaining part of products are produced by subsidiary plots of citizens (37.5%) and state and collective farms account for only 2.2 %.

(166). Total area of agricultural lands in the Kyrgyz Republic as of 01.01.2011 is 10,651.2 thousand ha (53 % of total land fund). 85.3% of these lands are occupied by pastures, the area of which over the last 5 years reduced by 4.3 %, while the forest areas increased by 9.9 %. Wood-shrub planting that include field protection forest belts over the 5 year period reduced by 0.5 thousand ha, i.e. by 0.1 %. This seemingly insignificant percentage present high risk for deflationary dangerous soils. The swamp areas increased by 0.1 thousand ha, which is explained by lack of funds of small farm enterprises for treatment of collector-drainage networks.

(167). As of 1 January 2011 the area of arable land under use made up 1,276.4 thousand hectares. The main part (79.5%) of all available arable land in the republic is privately owned. 885.2 thousand hectares are under use of farm enterprises, which is 69.4% of total arable land and 83.4 thousand hectares (6.5%) belong to collective and state farms. Homestead plots of citizens and collective gardens makeup 71.1 thousand hectares (5.6%). Besides that about 20% of arable land are under management of Agricultural Land Reallocation Fund and ayil okmotu (village administrations), significant part of which is used by peasant farms.

(168). The average land user possesses from 2.3 ha (in Batken oblast) to 12.4 ha (Naryn oblast) of agricultural land. In this regard, presence of small farms impede introduction of effective technologies such as land cultivation, introduction of crop rotation, as well as establishing of processing capacities. Farmers are usually unaware taking the risk planting one or another crop. More than half of arable lands are used under cereal crops, which are less profitable and more cost-effective. Most profitable technical crops, vegetables and watermelon, melon and gourd plantations account for a small share in total arable land. This situation shows the prevalence of extensive arable farming.

(169). Crop yield of main agricultural crops cultivated in Kyrgyzstan remains low. If in 1980-1990 productivity of arable land was 34 metric centners of grain crops per hectare in 1996-2010 it reduced to 25.2 c/ha in 2011. Reduction of arable land productivity by 8.8 c/ha resulted in annual shortfall in 970 thousand tons of wheat grain. However, the recent years have seen gradual decline in the crop yield. Thus average crop capacity of cereals and leguminous crops in 2011 made up 25.2 c/ha, in 2010 – 25.3 c/ha (weight after processing), and in 2009 – 29.3 c/ha.

(170). Among factors, influencing biological productivity of lands in Kyrgyzstan, are erosion processes, salinization and swamping/submergence. Starting from 1985 , area of degraded lands has significantly increased and by 2011 about 80% of agricultural lands have been acknowledged as affected by degradation processes, however the monitoring has not been carried out since 1990.

(171). Development of water and wind erosion processes is conditioned by many factors and reasons both of natural and anthropogenic character. Among natural ones is heavy dismemberment of the country territory, including all hydrographic formations (watersheds, slopes, hollows, gullies and river plains). Erosion processes are also caused by soil characteristics of mater-

nal and bedrock (loess and loess-type loam due to their looseness are easily washed down than clay).

(172). One of the absolutely negative factors causing water erosion in the territory of the country is the land slopes. Arable lands, especially, irrigated agricultural lands are vulnerable to water erosion. Equally important influence on development of erosion processes is exerted by rainfalls and wind regime. Human-induced factors of erosion processes are directly related to economic activity of people and, particularly, with improper use of irrigated lands. Heavy washout of soils is caused by non-observance of anti-erosion measures and irrational placement of agricultural crops.

(173). One of the key factors influencing agricultural crop productivity is application of fertilizers. Irrational use of mineral and organic fertilizers to increase crop productivity increases the environmental risks such as water and soil pollution. In 2010 there have been applied 28.9 thousand mineral fertilizers or 16.6% of 1990 level. Fertilized area made up 359.2 thousand ha with the crop productivity of 25.2 c/ha.

(174). The Kyrgyz Republic having no plants producing mineral fertilizers, annually officially imports on average 100 thousand tons of mineral fertilizers from Russian Federation, Uzbekistan and Kazakhstan, more 95% of which are nitrite fertilizers. Total volume o import of mineral fertilizers in 2010 decreased by more than 1.5 times compared to 2005. 95% of imported and applied fertilizers are the nitrous ones (ammonia nitrate, calurea) 4.5 % phosphate (ammophos, superphosphate and superphos) and 0.5 % potash fertilizers.

(175). On average, with estimated demand for mineral fertilizers in agriculture 320-340 tons in physical weight, annual application makes up about 100 thousand tons, i.e. provision is only about 30%.

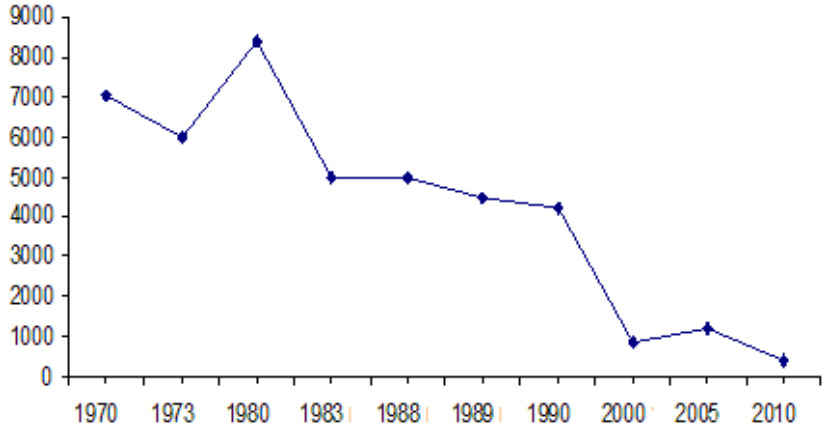
(176). The soils in agricultural areas of the country are not rich in organic matters (humus), the content of humus in arable layer fluctuates between 1.0-3.0 %. Intensive use of land result in the decrease of humus in soil. This has led to significant losses of soil productivity, water erosion and degradation of soils. Many arable soils have already lost 20-45% of humus compared to virgin lands. Humus is a reserve fund of nutrients therefore to maintain and replenish soil humus it must have crop rotation with perennial grasses and regularly apply organic fertilizers into the soil. In 2010 there have been applied 393.2 thousand tons of organic fertilizers, what is almost half of 2006 level.

(177). The losses of agriculture incurred from pests, make agricultural producers carry out wide-scale activities on protection of plants using different types of pesticides, what creates certain risks for environment and public health.

(178). Pesticides have never been produced in the Kyrgyz Republic. Permitted kinds of pesticides are imported into country by businesses for agricultural purposes. They do not contain Persistent Organic Pollutants (POPs). The Government is planning to pay special attention to preventing illegal turnout of potentially dangerous chemical substances for agricultural needs through strengthening of institutional and regulatory framework aimed at sound chemical management.

(179). Total volume of import of pesticide to KR has significantly reduced starting from 1990. This was associated not only with broken economic relations, low financial capacity of peasant farms and farm enterprises, but also with reduced norm of application per 1 ha. Accordingly, load on arable land reduced: if in 1990 the load per hectare in KR was 3.7 kg, in 2003 about около 1 kg (without sulphur). This is explained by quite low application norms of modern pesticides per hectare (from 0.01 kg/ha).

Dynamics of pesticide supply in the Kyrgyz Republic between 1970-2010, (in tons)



(180). In 2010 total volume of import of pesticides compared to 2006 reduced more than two times – from 934 tons to 414.1 tons (Figure 1). Most part of imported pesticides are herbicides (41.6%) and fungicides and seed toxicants (29%). However, while import volume of pesticides reduced, the area of their application did not reduce, and even partly extended. If in 2006 pesticides have been applied at 433.2 thousand ha, in 2010 this figure was 453.4 thousand ha, what shows increased interest in using of these preparations.

(181). Climatic factors have significant impact on agriculture. In 2011 taken alone as a result of unfavorable weather-climatic conditions 6,5 thousand hectares of grain and pulse crops (including corn), 1,2 thousand hectares of oil bearing crops, 152 hectares of cotton plants, 74 hectares of vegetables, 27 hectares of potato, 11 hectares of gourds, 6 hectares of tobacco and 120 hectares of forage crops were lost and written off. The loss of these crops were mainly caused by droughts and shortage of water (4.9 thousand hectares) and storm rainfalls and (2.9 thousand hectares).

(182). Agriculture is the main consumer of fresh water. In 2010, most part of withdrawn fresh water - 93% (4,163 million m³) were used for irrigation and rural water supply, 4,6% for household water use and only 2% for production purposes. The reason for losses is in poor technical state of irrigation and water distribution systems, depreciation of equipments, and application of ineffective irrigation methods. As of 1 January 2012 there have been established 477 Water Users Associations for management of local irrigation networks, which cover 732 thousand ha or 72 % of total irrigated arable lands. During the period of 2006-2010, the average water loses during transportation made up 1,852 million m³ per year or 23% of water intake volume.

(183). Actually one third of all water resources is lost during transportation, what shows high depreciation of transport system and extremely low efficiency of water sue. High percentage of water loss coupled with climatic changes is a serious risk for overall sustainable development.

(184). Food security: As it is stated in the Rome Declaration adopted on 17th November 1996, Kyrgyzstan pledged " to pursue the policy aimed at eradication of poverty and inequality, ensuring physical and economic access for all to sufficient and dietary adequate food". The level of country self-reliance on agricultural products by minimal norms in Kyrgyzstan remains rather high and makes up 95%.

(185). Food security for Kyrgyzstan is a problem related to efficiency of agricultural production and income level of population. Increase in retail and wholesale prices for food products reduces consumption of expensive protein products and contributes to lower access of major part of population to food products and irrational use of land and water resources lead to their degradation and reduced crop capacity.

(186). Prospects for "green" development: Agriculture is an unalienable component of the "green" economy. "Greening" of economy through development of agriculture implies strength-

ening of food security while reducing consumption of natural resources by increasing efficiency at all stages of food production cycle. This can be achieved through application of an ecosystem approach to agricultural management in a way that will allow meeting different needs of society without compromising the ability of future generations to use products and services of land and marine ecosystems.

(187). Linking sustainable agricultural development with eradication of poverty plays a determining role in ensuring food security and increasing living standards with simultaneous rehabilitation, conservation and development of nature capital. Promotion of implementation of effective and sustainable methods of agriculture among poor peasants has become an urgent task today due to the climate change, which can have devastating impacts on national efforts on ensuring food security. Acknowledgment of environment and ecosystems as "participants" of economy represents a fundamental principle of green economy along with the need to develop science intensive agricultural production based on recognition of importance of ecosystems.

(188). The main vector for efforts in agricultural sector should be increasing crop productivity, improving quality of soils and more effective use of water.

(189). Organic agricultural production is an ecologically and economically sustainable form of agriculture. Transition to more intensive and mechanized agriculture, application of chemical substances and wider use of genetically modified organisms (GMO) pose serious ecological risks, which lead to decrease in soil productivity, new diseases and loss of biodiversity. Organic agriculture is not aimed at simplifying of farming technologies but focuses on maximal use of self-regulating systems and natural characteristics of soil, plants and animals.

(190). Organic agriculture is based on effective use of the whole set of local conditions and resources and in this term this is considered as the "green" approach to agricultural production. This form of farming can be very advantageous for sustainable socio-economic and ecological development of Kyrgyzstan as the agricultural sector provides the livelihoods for the most part of population. The market of organic agricultural products (natural products) is very promising and needs development; therefore it opens wider opportunities for producers and exporters.

(191). In future, consumers, especially in developed countries, will pay more attention to the quality and price of food products. This is explained by increased awareness and education level of consumers, recent rows with food industry and reduced prices in retail trade networks. This means that natural products can achieve success if the prices for them will not be too high and producers and suppliers of these clean products will care about their image.

(192). Production of ecologically clean products becomes especially relevant in mountain areas. In conditions of limited arable land and lack of modern technologies of land cultivation, Kyrgyzstan has a unique advantage before other countries: production of ecologically clean agricultural products irrigated by waters melting from mountain glaciers in favorable natural climatic conditions of Central Asian region.

(193). Kyrgyzstan today has potential for production of ecologically clean agricultural products for export. By using modern technologies it can increase crop yield and use of market mechanisms will allow "green" producers to enter the foreign markets.

(194). Kyrgyzstan has everything for increasing export potential of ecologically clean agricultural products – land, pastures, water resources and most importantly, cheap labor force. But the country needs modern technologies of land cultivation and increasing farming standards.

(195). One of the priority areas is development of organic agriculture, as a whole agricultural production management system, which maintains and contributes to sound agro-ecosystem, including biological diversity, biological cycles and biological activity of soils. This system places an emphasis on management practice, rather than on using of external agricultural resources such as synthetic fertilizers, pesticides, phytohormones, forage supplements, genetically modified organisms. On the contrary, crop rotation, organic fertilizers (manure, composts, etc.), as well as different methods of tillage are used more actively to increase the crop productivity, providing crops with mineral nutrition elements, fighting pests and weeds.

(196). Weak organic agriculture in Kyrgyzstan is explained by a low level of production and organizational capacity in the first place. This is also related to a lack of modern technologies, weakly developed agricultural business which shows itself in absence of modern marketing and poor management capacity.
(197). An alarming factor is also a lack of good practices of successful agribusiness, which would demonstrate adequacy of measures undertaken by the state in stimulating development of ecologically clean agricultural production.

V. ENVIRONMENTAL DIMENSION OF DEVELOPMENT

5.1 Natural ecosystems

(198). ***Ecosystems are a basis for sustainable development of Kyrgyzstan.*** In Kyrgyzstan, maintenance of desired level of living organisms and communities' diversity is particularly acute as in conditions of high mountains with prevailing steep slopes and in surrounding deserts they are under high pressure. They are highly fragmented and separated by natural barriers. Besides that, biological diversity, a main component of natural ecosystems, is adapted to narrow local factors, which are specific to certain territories in our country (slopes, ravines, etc.). That is why a great number of endemic species of mushrooms, animals and plants are characteristic for Kyrgyzstan.
(199). Therefore, mountain ecosystems are so fragile and hard to recover after their depletion, if they maintain the ability for self-generation at all. Reduced natural ecosystems lead to lower environmental sustainability and deterioration of its vital qualities. Life is possible only in communities and under a certain set of conditions, characterizing their habitats. Each species performs special functions and can not be fully replaced by another species.
(200). In many ways, a unique biological diversity of Kyrgyzstan has a great importance not only in terms of creating comfortable conditions for population's livelihoods and meeting their basic – food and economic needs. Equally important are the cultural and aesthetic value of biological resources as an essential attribute of natural landscapes, as well as anthropogenic ecosystems, including typical urban and rural landscapes.
(201). There can be identified 22 ecosystems and 160 types of mountain and lowland landscapes, which are inhabited by more than 50 thousand kinds of living organisms.
(202). Increased well-being of population will inevitably entail the growing demand for meeting their recreational and cultural needs, where a significant role traditionally belongs to ecotourism, amateur hunting and fishing, as well as sports and recreational activities in natural environment.
(203). The use of wildlife products is directly related to development of many folk crafts, as well as garden and orchard plots, which are effective in solving the problems of national food security.
(204). Specifics of nature-climatic conditions of Kyrgyzstan dictate a close interconnection between the state of land, water and biological resources. This relation can be traced on the example of reduced forest areas in water forming zones. Reduced density of woodlands, natural regulators of surface runoff, prevents the accumulation of moisture and causes intensification of floods, mudflows, landslides.
(205). As a consequence this activates the erosion processes in soil layer that inevitably leads to change in a species composition and population of depending on each other local biological communities. Similar manifestations of linkage are seen in valley ecosystems (pond, swamp, etc.) and especially in economically developed territories, where human-induced pressure has radically changed all components of the environment. This factor forces to use balanced comprehensive approaches to regulating of nature use and protection in Kyrgyzstan.
(206). Due to comparison of natural environment of the country with those of other regions of the planet, which are considered as environmental disaster areas, major part of society including decision-makers have a distorted idea of safe ecological situation in Kyrgyzstan.

(207). In this regard, often environment is not identified as a priority in planning and implementation of socio-economic development activities in the country. However, despite such views, statistical data give objective evidence of symptoms of gradually worsening state of the environment.

5.2 Ecosystem-based management models

(208). Transition to sustainable development makes it necessary to include the environmental factor into the system of main economic development indicators. Underestimation of an environmental factor in decision-making is mostly related to a lack of price reflection of nature capital and environmental degradation in traditional development indicators.
(209). Traditional macroeconomic indicators (GDP, income per capita) ignore the environmental degradation. Increase of these indicators in the country is based today on technogenic and nature intensive development. This creates conditions for drastic worsening of economic indicators in case of natural resources and environmental depletion.
(210). The leading world organizations are actively developing criteria and indicators of sustainable development, containing often a complex system of indicators. These are UN (Integrated Environmental and Economic Accounting), World Bank (Genuine Savings Index), OECD (system of environmental indicators) European Community (GARP1, GARP2, TEPI).
(211). A principal aspect in their approaches to the problem is an attempt to take into account a damage from environmental pollution and depletion of natural resources at a macroeconomic level, and adjust main economic development indicators to environmental indicators. For example, published by the World Bank calculations based on genuine saving for all world countries showed significant gap between traditional economic indicators and environmentally adjusted ones.
(212). The central indicator of the system is ecologically adjusted GDP (acknowledged by all indicators of the state of environment): GDP– GDPE. It represents GDP adjusted to depletion value of the nature capital, i.e. consumption of environmental products. Consumption of environmental products means a quantitative decrease of mineral resources, volume of bio resources and observed reduction of ecosystem services volume.
(213). Thus, consumption of ecological services means a qualitative depletion of assimilating capacity. Ignoring depreciation of nature capital in calculating of economic indicators at macro and micro-economic levels lead to distortion of financial results, what in its turn, leads to degradation of environment and unsustainable development of countries and overall global development.
(214). Historically, the resource-based economy has run its course and proved that it can not develop along with the environment, creating in every economic success an array of ecological problems. At the same time, it should be noted that the modern market economy can not properly assess the environmental benefits and damages. The logic in decision-making about the project efficiency, which is based on the comparison of costs and benefits, in this case does not work.
(215). Therefore, sustainable economic development should be based on developing environmental production (in all its forms – from state to private ones) based on the knowledge that is innovative and aimed at minimization of negative impact of human factors.
(216). Sustainable management of land, soil, water and ecosystems aims at production of goods that meet the needs of people, providing at the same time, a long-term potential of these resources and maintaining the state of their ecological functions.
(217). Ecosystems of Kyrgyzstan provide a geographic area for development of biodiversity. The growing population today putting ever-increasing pressure on natural ecosystems of the Earth. This pressure is based on the high level of poverty and demographic growth, worsened by irrational management of natural resources.
(218). The growing need to meet the increasing demand for resources increase their deficit and does not meet the level of recovery and growth of nature capital. At the same time, climate

change presents significant risks to stability of ecosystems and their ability to provide ecosystem services in the context of growing population and use of nature resources per capita. Such a combination of ecological, climatic and economic pressure, will rise the conflict processes cringing about social tensions.

(219). The reasons causing the need to implement ecosystem management in Kyrgyzstan, are rather simple. First, ecosystems of Kyrgyzstan are divided by administrative and jurisdictional borders and their management demand interaction between different interest groups and institutions. Consequently, achievement of integrated ecosystem-based approach to development, which joins scientific knowledge about ecosystems and socio-economic principles, initiates the institutional changes, as well as provides engagement of all interest groups and participatory decision-making. Second, to introduce these changes, it is necessary to assess and modify how ecosystem benefits are integrated into the decision-making tools.

(220). It is quite obvious that there is the need for development of an economic model, which reflects environmental benefits gained people and costs associated with degradation of ecosystems. If it succeeds, Kyrgyzstan will significantly move forward towards sustainable development.

(221). Ecosystem management can be defined as an "integrated process of conservation and improvement of the state of ecosystems, which provide their services for the well-being of population. In the given context, payment for ecosystem services mechanism is being developed now in the world, what in its turn is also important for Kyrgyzstan.

(222). International Environmental Alliance gives the following wide definition to ES "Ecosystem Services is the process, which integrates ecological, socio-economic, and institutional factors into a comprehensive analysis and activities for maintenance and improving the state of ecosystems to meet the present and future needs".

(223). As such, ecosystem management represents a holistic, interdisciplinary approach, which acknowledges interdependence of ecological, socio-cultural, economic and institutional structures. The approach is based on clearly articulated goals, which can be achieved through policies, agreements and practices, updated with knowledge, obtained through researches and monitoring of environmental interrelations and processes supporting composition, structure and functioning of ecosystems.

5.3.Assessment of environmental risks from trade

(224). Global development is directly linked to import of goods and services and technologies as well. Within overall greening of production in developed countries, there is a risk of exporting dirty technologies, goods and services to countries with transition economies, where the capacity of regulatory framework, government and public institutions and equipment of analytical laboratories do not allow providing ecological security.

(225). Primarily all this concerns ensuring chemical security. There is quite a serious risk of that Kyrgyzstan as a country withy transition economy, can become a subject to the possible export of hazardous industry and use of outdated technologies, import of potential risks for human life and health, and conservation of ecosystem goods.

(226). As an area of forming water resources for central Asia, the Kyrgyz Republic acknowledges its responsibility for conservation of ecosystems and takes maximum possible efforts for accumulation of its own resources and attracting donor funds for restricting of control over environmental security.

VI. HUMAN CAPITAL FOR "GREEN" ECONOMY

(227). Issues on human and social development are central in public policy of the Kyrgyz Republic. These include the provision of opportunities for people to have decent employment

and education, access to healthcare services and protection of vulnerable groups of population. All these areas contribute to increased well-being and poverty eradication.

(228). Central role in implementation and transfer of "green" technologies will belong to government as the market mechanism targeting merely at maximization of profit is not able to deal with this task. An important step will be creating new kinds of environment-friendly economic activities to replace the existing ones characterized by less productivity. National innovation systems will play a fundamental role in this process, which include in themselves the education system, research institutions, and other mechanisms that are involved in development of new products and change of production processes. To support sustainability of these institutions will require specially educated personnel, who can work in cross-cutting area under changing economic paradigms.

(229). One of the key moments in this process is reorientation of management process from traditional decision-making in different areas to their environmental and economic justification. The activity negatively impacting the state of environment can not be considered effective. Consequently, knowledge of laws and principles of "green" economy, environmental management, environmental economics and ecology should become an unalienable part of the professional culture of management personnel at all levels. Such knowledge should include information about interrelation between nature and society, negative environmental impact and the ways to solve them, environmental indicators as evaluation of business entities performance, calculation methods and ways to increase environmental and economic efficiency of production. The main goal is to increase environmental competence of management personnel as part of their professional training as well as the capacity to assess management decision-making and technological processes from the environmental point of view.

(230). In its turn, transition to "green" economy implies that education sphere will provide a wide-scale training and retraining of "green" job specialists. Training of professionals in nature management and ecology fields should be based on a comprehensive approach, which assumes looking at ecological, economic, social and cultural aspects of considered problems.

(231). Economic education and re- education will be particularly demanded as the green development programs, "green" investments, eco innovations, new principles of taxation and financing are what modern specialists will have to face in their work. Therefore, education sector has to form new basic frameworks for quality, result-based education.

(232). Under these frameworks it is important to introduce the new content in education, where education standards need to be developed and updated at all levels ranging from pre-school to higher professional education. In doing this training, retraining and upgrading qualification of teachers will be one of the key factors ensuring high quality education. To provide educational institutions with highly-qualified teachers having excellent knowledge in the subject area and new modern technology skills and high motivation level new standards will be introduced on pedagogical specialties on bachelor level; teacher development programs will be updated.

(233). The ground for transition to "green" economy is already being laid through implementation of sustainable development ideas in subject curriculums and standards of pedagogical education in the Kyrgyz Republic to include the principles of sustainable development, energy efficiency and energy security.

(234). However development of such issues stated below remain important: Development of human potential and social infrastructure of mountain communities to increase access to social services; Ensuring equitable participation in interstate cooperation, including in "joint implementation projects", "clean development mechanisms", trade in greenhouse gas emissions quota to attract additional investments for implementation of environmentally clean technologies and adaptation to climate change, and promotion of programs to make education buildings more environmental-friendly.

(235). Enhancing access of woman to services and technologies that are necessary for water supply, agriculture, household management and business enterprises; An important aspect in this context is integration of gender approach when analyzing and decision-making in green growth,

climate change area: men and women react to environmental changes , as well as get affected and respond in different ways. These differences are based on their specific gender roles and different access level to resources and decision-making. As part of moving towards sustainable development measures should be taken on the level of different gender institutions to carry out gender analysis and develop gender-sensitive solutions.

(236). Healthcare policy must be oriented on the following new areas: improving quality of medical and sanitary aid with orientation of healthcare for achievement of MDG and strengthening the role of public healthcare. Under these goals it is necessary to develop and implement standards of medical services on evidence-based medicine into practical healthcare, as well as develop mechanisms on organization and interaction of healthcare system in emergency situations, improving external and emergency medical aid.

(237). Public healthcare service activity should be reoriented for strengthening of cross-sectoral cooperation on creating health culture, change of behavioral stereotypes of population, increasing the knowledge level on the main aspects of health and focusing efforts on eradication of social, behavioral and other factors that impact public health, as well as extending services on promotion of health.

VI. MESSAGE TO THE INTERNATIONAL DONOR COMMUNITY

(238). Considering the key UN recommendations on support for increasing investment into sustainable development of mountain countries, as well as funding for these purposes, the Kyrgyz Republic in line with its inner potential and national development priorities, appealing to the international donor community with the request to provide support for:

1. Conservation and maintenance of natural mountain ecosystems, a guarantee for sustainability and water supply, through creating specially protected areas aimed at preserving mountain glaciers, forests and biodiversity for creating of natural ecosystems in areas where water streams of regional importance are formed;

2. Implementation of integrated water management (IWRM) and increasing effectiveness of irrigation systems to reduce transboundary conflicts and ensuring access of population to water resources;

3. Increasing efficiency of land management and implementation of modern technologies for improving productivity of mountain, ecologically clean and climate resilient agriculture as the basis for green economy in Kyrgyzstan;

4. Developing human potential and social infrastructure of mountain communities to boost the human potential and increased access to social services;

5. Modernization and development of sustainable green energy for all for more effective production and transportation of energy and energy efficient consumption;

6. Developing a system and institutional capacity for transition to green economy as a vector of sustainable development for integrated monitoring system and green economic indicators of the country development strategy;

7. Establishment of a group of mountainous most vulnerable developing states under the UN, in order to create new opportunities for Kyrgyzstan for participation in international processes;

8. Initiative of Kyrgyzstan as a landlocked country, on creating preferences in trade regime, as in case of island states to increase sustainability of Kyrgyzstan's economic development;

9. Application of debt swap mechanism to multilateral creditors in exchange for sustainable mountain development and adaptation to climate change to reduce both threats to sustainable development of Kyrgyzstan.