

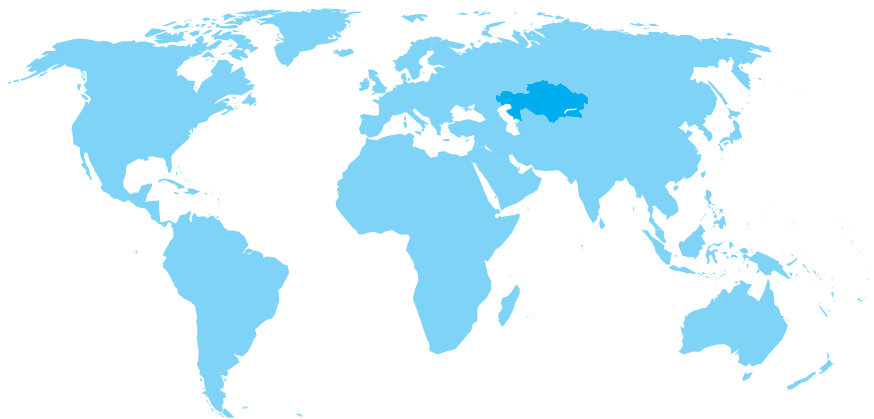
Concept of Transition of the Republic of Kazakhstan to Sustainable Development for the Period 2007 – 2024



Action Plan for 2007-2009 on the Implementation of Transition of the Republic of Kazakhstan to Sustainable Development for 2007-2024



This work was prepared by Public Association “The Network of Experts for Sustainable Development of the Central Asia” and it is based on the Concept of Transition of the Republic of Kazakhstan to sustainable Development for the years 2007 – 2024” on the request of the Ministry of Environment of the Republic of Kazakhstan and with support of United Nations Environmental Program and United Nations Development Program.



Ministry of Environmental Protection of the Republic of Kazakhstan
www.nature.kz

Norwegian Government
www.government.no

United Nations Environmental Program
www.unep.org

Public Association “The Network of Experts for Sustainable Development of the Central Asia»
www.nesdca.narod.ru

United Nations Development Program
www.undp.org

PLAN OF IMPLEMENTATION OF THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT

162. States should:

- b) Take immediate steps to make progress in the formulation and elaboration of national strategies for sustainable development and begin their implementation by 2005. To this end, as appropriate, strategies should be supported through international cooperation, taking into account the special needs of developing countries, in particular the least developed countries. Such strategies, which, where applicable, could be formulated as poverty reduction strategies that integrate economic, social and environmental aspects of sustainable development, should be pursued in accordance with each country's national priorities.

(WSSD, Johannesburg, 2002)



Decree of the President of The Republic of Kazakhstan

ON THE CONCEPT OF TRANSITION OF THE REPUBLIC OF KAZAKHSTAN TO SUSTAINABLE DEVELOPMENT FOR YEARS 2007-2024

To put Kazakhstan's Development Strategy 2030 into practice,
HEREBY I DECREE:

1. Approve the Concept of Transition of the Republic of Kazakhstan to Sustainable Development for years 2007-2024.
2. The Government of the Republic of Kazakhstan shall:
 - within a three-month period elaborate and approve a stage-by-stage Action plan on implementation of the Concept for 2007-2009 and
 - annually provide information on the Concept implementation to the Administration of the President of the Republic of Kazakhstan by March, 10.
3. The state bodies of the Republic of Kazakhstan shall observe the provisions of the Concept in their activities.
4. The control of execution of this Decree shall be conferred on the Administration of the President of the Republic of Kazakhstan.
5. This Decree shall come into force on its date of signing.

PRESIDENT OF THE REPUBLIC OF KAZAKHSTAN
N. NAZARBAYEV

Astana, Akorda, 14 November 2006, №216

Resolution of the Government of the Republic of Kazakhstan



CONFIRMATION OF 2007 – 2009 ACTION PLAN ON IMPLEMENTATION OF THE CONCEPT OF TRANSITION TO THE SUSTAINABLE DEVELOPMENT OF THE REPUBLIC OF KAZAKHSTAN 2007 TO 2024

To implement article 2 of the Decree of the President of the Republic of Kazakhstan of November 14, 2006, No 216 “On the Concept of transition of the Republic of Kazakhstan to sustainable development for years 2007 to 2024” the Government of Kazakhstan takes the decision:

1. To approve the 2007-2009 Action Plan on the implementation of the Concept of transition of the Republic of Kazakhstan to sustainable development for years 2007-2024.
2. Central and Local executive bodies, state bodies, directly subordinated to the President of Kazakhstan shall
 1. ensure appropriate and timely execution of this Plan;
 2. submit twice a year to the Ministry of Environmental Protection of the Republic of Kazakhstan information on the course of implementation of the Plan.
3. The Ministry of Environmental Protection shall submit KZ Government semi – annual summary information twice a year, by January 30 and July 30.
4. Control over the observance of the Present Resolution shall be conferred on Deputy Prime-Minister of the Republic of Kazakhstan, Minister of Economy and Budget Planning, A.E. Musin.
5. The Present Resolution will be in action since the day of its signing.

PRIME-MINISTER OF THE REPUBLIC OF KAZAKHSTAN

K.K. MASIMOV

Astana, the House of Government, 14 February 2007, № 111-1



Greeting

Concept of transition of the Republic of Kazakhstan to sustainable development was prepared upon the order of President of the country Mr. Nazarbayev N.A. within the framework of implementation the Action Plan of the World Summit on Sustainable Development (Johannesburg, 2002). The Ministry of Environment of the Republic of Kazakhstan with the support from the international organizations – UNDP, UNEP, EU - has initiated unexampled process of discussion of the Concept draft with participation of scientists, national and international experts in the area of sustainable development, representatives of the Parliament of the RK, governmental agencies, NGOs and businesses.

This is a unique and fundamental document, based on scientific justifications and use of innovative approaches to long-term planning.

The development and endorsement of this document in Kazakhstan opens new page in dynamic development of the country and demonstrates to the world community progressiveness of Kazakhstan development model, focused on quality life improvement of Kazakhstan current and future generations.

**MINISTER OF THE ENVIRONMENT
OF THE REPUBLIC OF KAZAKHSTAN
N. ISKAKOV**



**CONCEPT
OF TRANSITION
OF THE REPUBLIC
OF KAZAKHSTAN
TO SUSTAINABLE
DEVELOPMENT
FOR THE PERIOD
2007 – 2024**

Concept of the Transition of the Republic of Kazakhstan to the Sustainable Development for the Period 2007-2024

1. GENERAL PROVISIONS

Sustainable development of any country answers both the living generation demands and those of the future.

The transition of the Republic of Kazakhstan to sustainable development is its utmost necessity. The economic growth can not rely only on exploitation of the natural resources because it can last just limited period of time and at a certain development stage. Nowadays, renovated development mechanisms play the key role in enhancing economic sustainability.

Sustainable development is the background of both Kazakhstan's Strategy of Sustainable Development 2030 and that of Kazakhstan's strategy of joining the world's 50 most competitive countries, outlined in the Address of the President to the people of Kazakhstan 1 March 2006.

This Concept of transition of the Republic of Kazakhstan to sustainable development 2007-2024 (further referred as Concept) considers explores the principles, goals, objectives and key mechanisms for achieving sustainable development in all sectors of the country's economy. To achieve these ends the focus should be directed to integrated consideration of economic, environmental, social and political factors and viewed as indivisible process, aimed at improvement of the living standard of the people of Kazakhstan.

1.1. Prerequisites for the transition of the Republic of Kazakhstan to sustainable development

The Republic of Kazakhstan, a competent member of the world community, has undertaken an engagement to implement the goals of the Agenda XXI (Rio de Janeiro, 1992), declarations of the Millennium Summit (New-York, 2000), and World Summit on Sustainable Development (Johannesburg, 2002).

The Republic of Kazakhstan has undertaken a number of measures in promoting sustainable development.

Kazakhstan is an active member – country of such bodies as the UN Commission on Sustainable Development, "Environment for Europe", "Environment and Sustainable Development in Asia", and regional Eurasian network "World Council of Entrepreneurs for Sustainable Development".

The following strategic documents - the Development Strategy of Kazakhstan to 2030, Mid-Term Strategy of Kazakhstan's Development to 2010, Strategy on Industrial and Innovation Development of the Republic of Kazakhstan to 2015, Environmental Safety Concept for the years 2004 – 2015, and Strategy on the Territorial Development of Kazakhstan to 2015 have been elaborated and approved to address the economic, social and environmental challenges. The Council for Sustainable Development of Kazakhstan and Sustainable Development Fund "Kazyna" were also set up to cooperate in achieving sustainable development.

The role of the Republic of Kazakhstan in ensuring ecological stability in Eurasian Continent is of great importance. Being a political, cultural, and economic linkage between Europe and Asia, Kazakhstan also implements the same connecting function in development of continental landscape and ecosystem. The area of Kazakhstan, climatic varieties, and peculiarities of water balance of the region result in significant dependence of the environmental situation in Eurasia upon stability in Kazakhstan.

Political situation in Kazakhstan is the unique example of stability and religious consent, and it enhances the development of democracy and public institutions beneficial for each and everybody. Stable political development of Kazakhstan is a favorable source for balanced initiatives which can be suggested to the world community.

At the same time Kazakhstan faces some serious impediments, which threatens

country's national security

Up to now the economic growth of the Republic of Kazakhstan mostly depended on the rise in raw material price in the world market and utilization of natural resources. As a result there is enormous loss and degradation of the nature capital. The growth of DGP is accompanied by large emissions to the environment. Based on the current data, over 75% of the country's area is exposed to high environmental risks. The problem of desertification is critical. "Historical pollutions", stored wastes, growing toxic emissions from the stationary and movable sources represent enormous threat to the environment and people's health.

The potential threat to the stable economic development of the country is its significant dependence on the raw materials sector, low level of preparation of some sectors to WTO entrance, growth of external debt, and shadow economy problems.

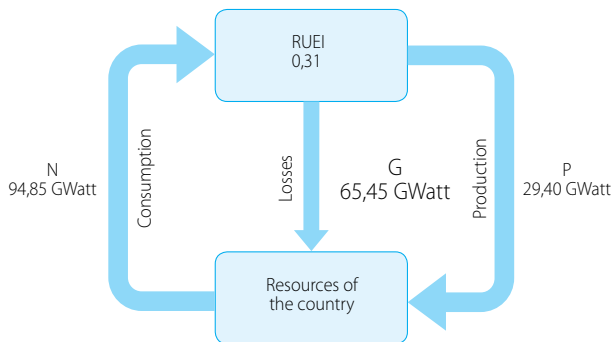
There is a significant gap in economic and social development among the regions of Kazakhstan. The demographic and health problems are still urgent, as well as low level of legal, economic, and environmental literacy of population.

Kazakhstan's sustainable development depends on its successful coping with these challenges.

1.2.Outlook for transition to sustainable development

Most of the social and economic problems that Kazakhstan faces are caused by historically formed imbalance between the consumption of the resources and produced goods. The losses can be measured by introducing energy product value measurement (Giga Watt) and by determining it's correlation to main economic indexes.

For example, in 2005 in order to produce output aggregate with the total energy product value 29.4 Giga Watt the country has consumed resources of the total energy value 94.85 Giga Watt. This means that during this year the country lost or misutilized the backlog of 65.45 Giga Watt of the country's capacity. This stands for the fact that in Kazakhstan the index of resources use efficiency is low, and currently it comprises 31% (Picture 1). This is higher than the average world level, which is 24%, but lower than that that in the technically developed countries of the world: Japan – 36 %, USA – 34 %, Germany – 33 %. (In the former Soviet Union this index reached 36%, which ensured the higher competitive level in the world arena).



Picture 1. Scheme of counting the resource use efficiency index (RUEI) of the Republic of Kazakhstan, 2005.

The quality of life, which is the main criterion of sustainable development, is still lower in the Republic of Kazakhstan in comparison with the developed countries.

In the modern world the quality of life is determined by life expectancy, welfare level, level of education, and environmental safety.

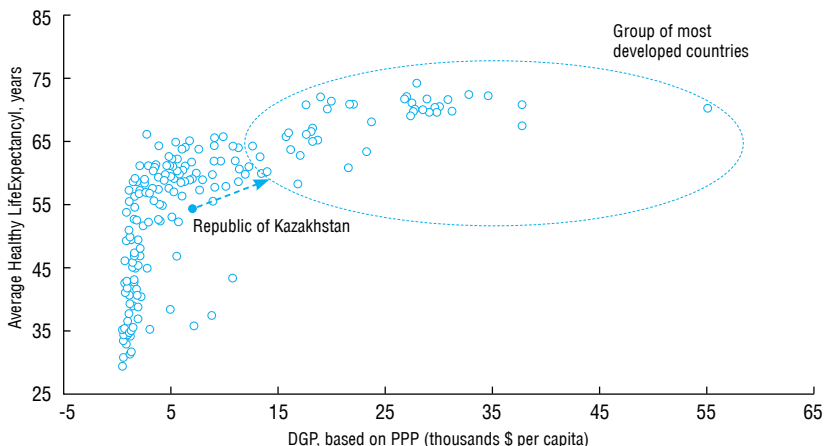
According to international University of Society, Environment, and Man (Dubna, Russia) estimates, Kazakhstan ranked 78 out of all countries considered with the rate of 1.17, while

the leader, Norway, has the rate of 3.83, Russia – 1.57, and China – 0.34.

In Kazakhstan the population health and life expectancy are significantly lower than in other countries. Thus, average life expectancy in the country in 2005 was 65.9, while in Japan this index was 80.

According to Yale Center on Environmental Legislation and Policy (Yale University, USA) and Columbia Center of the World Informational Network on Earth Sciences (Columbian University, USA) estimates, the Index of Environmental Sustainability, which includes 76 parameters, such as ecosystems status, environmental stress, environmental aspects of the human health, social and institutional capacity and international activity of a country, Kazakhstan ranked 70th place with the rating of 63.8, while the leading countries – New Zealand, Sweden, and Finland – had the rating of 87-88. Based on the World Bank data, the Index of veritable savings, that considers depreciation and loss of nature capital, in Kazakhstan equals to 25.5, while in Russia it is 4.4, Norway +14.8, USA +4.4.

According to Index of Human Potential Development Kazakhstan is placed in the 80th line in the world rating list of the countries. Picture2 illustrates Kazakhstan's place among the main world countries in compliance with average life expectancy, healthy life and GGP per capita.



Picture 2. The placement of Kazakhstan among other countries based on average healthy life interval (years) and GDP per capita (Thousand USD, based on purchasing-power parity).

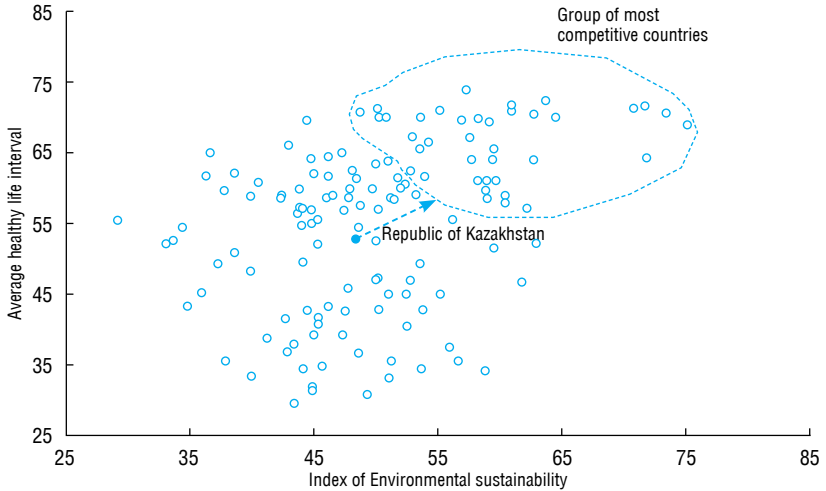
The Republic of Kazakhstan's place, based on correlation of the Index of average healthy life expectancy and Index of environmental sustainability, is demonstrated in picture3.

Thus, in order to take a sustainable position among the most competitive and developed countries by 2024 it is necessary to raise resource utilization effectiveness, to increase life expectancy and ensure Index of environmental sustainability growth.

The conducted forecast showed that in order to ensure stable position of Kazakhstan within the most competitive countries within the period 2013 – 2018, the indexes of countries development should comply with the following parameters:

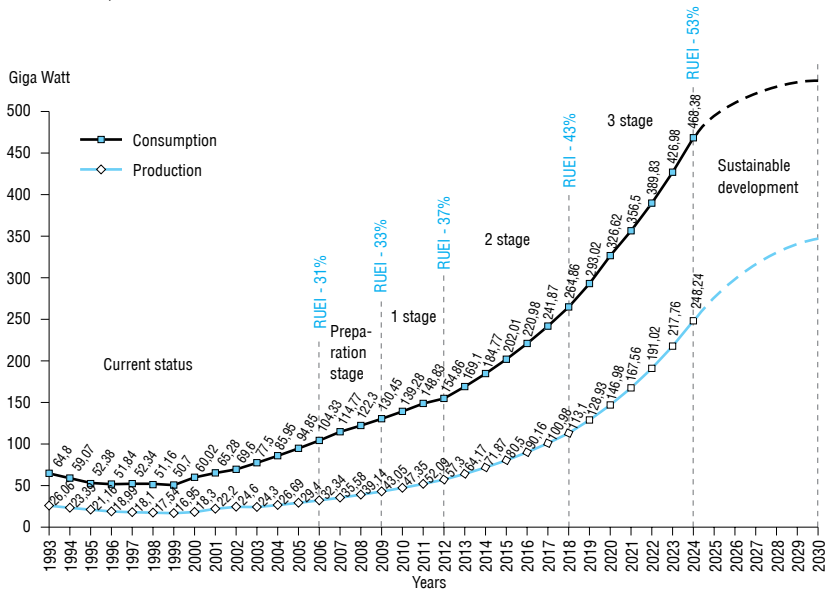
- Resource utilization efficiency index – not less than 43 %;
- Total resource consumption – not less than 246.86 GigaWatt;
- Annual output aggregated – not less than 113.1 GigaWatt.

According to the forecast, these are the parameters of sustainable development of world fifty most competitive countries.



Picture 3. The Republic of Kazakhstan's according to correlation of average healthy life expectancy and Index of environmental sustainability.

The Index of resource utilization efficiency of 53% will ensure country's transformation to sustainable development, and there will be the economic growth due to more efficient, advanced technologies instead of exploitation of nonrenewable nature resources (picture 4).



Picture 4. Forecasted model of the development of Kazakhstan until 2030.

Population of the Republic of Kazakhstan is an important criterion of sustainable development. Low population density (with vast territory) is always an instability factor for the development of the country. Despite the fact that the most part of the area of Kazakhstan hardly fits for managerial usage, and it is impossible to have population even settled on all its territory, the population should be kept at a certain level, which will increase economic capacity (firstly resolving problems of the labor market), conserve the genetic and cultural potential of the people of Kazakhstan among neighboring nations, and will mitigate the differentiation between the regions of Kazakhstan, caused by poor infrastructure and demographic disproportions.

Most optimal target population level is 18 million by 2024. To achieve this target the natality index should be 12.68 per 1000 people by 2024 (with the current natality index-8.0), life expectancy – 73, and maintained birth rate at a level of 22 newborns per 1000 people. Disparity in average life interval between men and women should be lowered to 7.5 years as compared to current 11 years.

Simultaneously with economic growth the environmental standards should be improved and anthropogenic pressure on the environment should decrease. For achieving this, the Index of environmental sustainability should reach at least 88, which is the best achieved level so far.

Changing of the above parameters will ensure the quality of population life that will answer the best world levels.

1.3. Phases of transition to sustainable development

The transition of Kazakhstan to sustainable development will progress on the stage - by - stage basis. For this the start-up parameters for each phase are determined (Table 1).

Preparation stage (2007- 2009) implies creation of conditions for integration of the sustainable development principles into all spheres of public and political activities for diversification of economy, and for technological breakthrough.

First stage (2010 - 2012) provides Kazakhstan's joining the world's fifty most competitive countries.

Second stage (2013 - 2018) ensures strengthening of Kazakhstan's position among leaders of the world development by increasing the quality of life level, significant decrease of nature resources loss caused by its inefficient utilization and increase of the level of environmental sustainability of the country.

Third stage (2019 - 2024) implies the achievement of the international standards of sustainable development.

2. MAIN PRINCIPLES, PRIORITIES, GOAL, AND OBJECTIVES OF THE TRANSITION TO SUSTAINABLE DEVELOPMENT

2.1. Main principles and priorities

The main principles of the transition of the Republic of Kazakhstan to sustainable development include:

- broad public involvement in the process of transition to sustainable development;
- establishment of the political base for sustainable development;
- intersectoral integration, systemic approach to the management of the state, improvement of the efficiency of the prognosis, planning, and regulation of the key development indicators;
- economic growth, ensured by active introduction of innovative technologies in the country economy and improved resource use efficiency;
- competitiveness of science and education;
- improvement of the human health, demographic situation, based on introduction of healthy society paradigm;
- improvement of the environmental activities as an important noosphere function of the society;
- territorial development on the basis of trans-regional ecosystem approach.

Table 1. Assessment of the start-up parameters of transition of the Republic of Kazakhstan to sustainable development (2005 – 2024).

№	Integral Indicators	2005	2009	2012	2018	2024
1.	Population, mln. people	15,05	15,66	16,13	17,13	18,18
2.	Average life interval, years	65,91	67,87	68,89	70,99	73,14
3.	Average standardized life interval	0,66	0,68	0,69	0,70	0,73
4.	Men and women disparity level of life expectancy	11,47	10,00	9,3	8,5	7,5
5.	Consumption of energy value (for the previous year), Giga Watt	94,85	130,45	154,86	264,86	468,38
6.	Production of energy value (for the current year), Giga Watt	29,40	43,05	57,30	113,10	248,24
7.	Energy value losses, Giga Watt	65,45	87,40	97,56	151,77	220,14
8.	Resources use efficiency (RUEI)	0,31	0,33	0,37	0,43	0,53
9.	Quality of environment	0,91	0,95	0,99	0,93	0,95
10.	Living standard, kilowatt per capita	1,95	2,75	3,55	6,60	13,65
11.	Quality of life, kilowatt/hour	1,17	1,78	2,43	4,35	9,49
12.	Index of environmental sustainability, rating	63	68	73	75	88

- The priorities of the transition to sustainable development include:
- introduction of sustainable models of production and consumption;
 - introduction of innovative environmentally safe technologies;
 - development of sustainable transportation systems;
 - energy efficiency and energy saving;
 - regional problems of sustainable development;
 - improvement of social security of the population;
 - poverty elimination considering the environmental and gender factors;
 - development of science and education for sustainable development;
 - conservation of historical and cultural heritage;
 - prevention and alleviation of environmental threats to the human health;
 - conservation of biological diversity;
 - decrease of emissions, including GHG and ODS;
 - access to the qualitative drinking water;
 - solution of trans-boundary environmental problems;
 - radiation and biochemical safety;
 - waste management.

2.2. Goal

The goal of the Concept is to achieve economic, social, environmental, and political balance of the development of the Republic of Kazakhstan as a base for improvement of quality of life and provision for the competitiveness of the country in the long-term period.

2.3. Objectives

In order to implement the stated goal, the following objectives should be addressed:

1. Increase of the RUEI up to 37% by 2012, 43% by 2018, and 53% by 2024

The implementation of the first objective will build on:

- diversification of economy, increase of the contribution of the high technological sectors and sectors that are not based on raw materials export to the economic growth, and introduction of environmentally safe technologies;
- increase of the state role in regulating the main macroeconomic parameters of the country development;
- technological break out, based on priority development of science and education, built upon national innovative system, variety of forms of scientific and educational institutions, increase of the authority of the intellectual elite, state support of innovative ideas, including cluster development of economic sectors, improvement of the technical and financial base of the scientific and educational sectors, and improvement of training and retraining of personnel, which will make a ground for competitive production and increase of export capacity of the country;
- maintaining the balance between exploitation and export of nature resources and other sectors of economy;
- introduction of sustainable models of production and consumption;
- development of sustainable transportation systems;
- creation of efficient infrastructure in the country.

2. Increase of the average life interval of population up to 68 years by 2012, 70 years by 2018, 73 years by 2024 with birth rate not less than 18-22 new-born per 1000 people

Implementation of the second objective of sustainable development will build on:

- increase of social safety level and introduction of safe behavior culture;
- provision of qualitative drinking water, conforming to the optimal physiological criteria;
- prevention and elimination of environmental threats to the human health;
- poverty mitigation, achievement of the optimal level of Jinni Index;
- measures on decreasing of road, domestic, and industrial injuries;
- stimulation of the healthy nutrition standards, elimination of nutrition deficiencies (calcium, iodine, selenium and other elements);
- creation of economic incentives for strengthening the family and procreation institutions, improvement of obstetrics system, and protection of motherhood and childhood.

3. Increase of the environmental sustainability index up to 10% by 2012, 15 % by 2018, and 25 % by 2024

Implementation of the third objective will build on:

- introduction of ecosystem trans-regional approach to implementation of the sustainable development programs in the regions of Kazakhstan;
- definition of the target criteria of sustainable development for all large industrial and power facilities with specific deadlines and mechanisms of transition to the best available technologies;
- combat desertification;
- conservation of ecosystems, landscape and biological diversity;
- introduction of efficient economic mechanisms in environmental protection for facilitation of cleaner production strategy;
- development of the alternative energy;
- use of main provisions and mechanisms of the International Agreements for attraction funds for improving environmental indicators of the industry of Kazakhstan ("green investments");
- cleaning-up the "historical pollution", development of incentives for introduction of the waste management system.

4. Ensuring the successful implementation of internal and foreign policy

Implementation of the fourth objective will build on:

- consolidation of the political powers in favor of the idea of sustainable development;
- support of public actions, representing interests of historically indivisible peoples of Kazakhstan, including future generations;
- possibilities to create the international zone of sustainable development in the country;
- active and real participation of Kazakhstan in international organizations, holding of large international forums;
- development of efficient local self-governance system.

3. COMPONENTS AND MECHANISMS OF TRANSITION TO SUSTAINABLE DEVELOPMENT

3.1. Integration of the development mechanisms

To achieve the goals and objectives of Kazakhstan's transition to sustainable development, the integration of the development resources, mechanisms, and tools should be ensured.

The target development indicators determined in this Concept, should serve as a basis for indicative planning of the country development as a whole, and of specific sectors, regions, and economic agents.

Short-, mid-, and long-term plans for Kazakhstan's transition to sustainable development should be worked out, also in the context of regions and sectors.

The budget programs should be formed considering the sustainable development priorities, target indicators of resource use efficiency index, average life expectancy, and environmental stability index.

To ensure the integration of sustainable development mechanisms, the main indicators of sustainable development should be adopted, including complex, organizational, economic, energy, social, environmental and regional indicators.

3.2. Political base for sustainable development

Internal policy. Sustainable development of the internal policy in the Republic of Kazakhstan is based on facilitation of the democratization processes and strengthening of the political system of the country for the sake of all people of Kazakhstan. At the same time, during the state development and implication of democratic procedures, the interests of both current and future generations of Kazakhstan people should be taken into account. Sustainable development of internal policy of the Republic of Kazakhstan is ensured by:

- improvement of democratic procedures, consistent expansion of grass-roots democracy as a decision making mechanism, considering the majority and minority opinions at all levels;
- increase of the role of Assembly of the Peoples of Kazakhstan in political life of the country;
- preservation of cultural traditions of Kazakhstani society, in the first place – respectful attitude to old people and care of younger generation;
- formation of the political opponent culture, strengthening of constructive opposition as a basis for competitiveness of the programs and personnel, and expressing of the interests of all society groups;
- development of the local self-administration with conserving the integrity of the state.

Foreign policy. The Republic of Kazakhstan has unique opportunities for receiving a status of a region of stable and sustainable development. Kazakhstan can become an example of "the state of the future", realizing the principles of inter-faith, inter-ethnic, social, political, economic, and cultural balance. This should be achieved by:

- implementation of the balanced foreign policy;
- introducing of the strategic program of the Republic of Kazakhstan on establishment of international zone of sustainable development in the country;
- establishment of international environmental organization with a headquarter in

Astana;

- chairmanship of Kazakhstan in OSCE to increase competitiveness of the country and expression of the position in regards to sustainable development;
- active participation of Kazakhstan in international organizations, integrated societies, and international forums.

3.3. Sustainable development of the society

Demographic situation. Further development of Kazakhstan society should build on formation of the sustainable demographic situation, characterized by increase of the average life interval and birth rate, maintaining the share of able-bodied citizens in the age structure. These tasks will be achieved by:

- decrease of mortality level caused by domestic, industrial, and road injuries, cardiovascular, oncological, and respiratory diseases through implementation of the complex preventive programs;
- decrease of maternity and infant mortality level through improvement of the measures on protection of reproductive health of the population;
- improvement of the quality of life of the elderly people by adopting special gerontological programs;
- stimulation of the birth rate through appropriate social policy, corresponding the demographic targets, and including education and employment, provision of habitation, and social payments system;
- implementation of measures aimed at prevention and decrease of spreading rate of HIV AIDS;
- systemic monitoring of demographic situation with results analysis and decision making in the regional context.

Making the nation healthier. In order to ensure sustainable development, Kazakhstan people need to form the appropriate attitude to the healthy life style, which includes the following measures:

- restriction of smoking and selling of the tobacco goods in salesrooms, prohibition of smoking in public places and commercials advertising tobacco goods, conduction of antismoking actions in the mass media, stimulation of giving up smoking in the “influence groups” among medical and education personnel, government officials, etc.;
- restriction of alcohol drinking, especially strong drinks, prohibition of advertising the alcohol drinks, and stiffening of spirits quality control;
- elimination of drug addiction and drug business, including anti-drugs campaigns and formation of public anti-drugs immunity;
- improvement of nourishment standards, increase of consumption of fresh juices and milk products per capita, propaganda of healthy nutrition, and stiffening of food quality control in the home market;
- promoting sports activities, including free sport and fitness gyms, sports facilities for children, promoting healthy lifestyle through social advertisement;
- involvement of young people in the project “My Kazakhstan – my Fatherland”, and also in ecotourism activities as tour guides;
- integrated approach to implementation of the principles of healthy life style and formation of appropriate attitude to sports and tourism as a new ideology of improvement of the life quality of Kazakhstani people.

Public health. In order to achieve sustainable development of Kazakhstan society, the system of health care should be improved, including:

- selection of the most efficient economic model of the development of the public health services;
- establishment of the Centers of high medical technologies through attraction of the best world experts;
- development of the medical market including public and private services;
- constant increase of the funds or medical services per capita, support of the voluntary

- health insurance as an important component of the economic health care system;
- use of health resources of the nature of Kazakhstan, including establishment of a network of resorts and rehabilitation facilities of international level;
- improvement of the mother and child health care, obstetrics, and reproductive health of men and women.

Industrial safety and protection of labor. Sustainable development in the area of industrial safety and protection of labor will be implemented through:

- introduction of international standards of safety and protection of labor at the industrial enterprises;
- both employers and employees' awareness of safe behavior and increase of responsibilities for compliance with safety requirements;
- implementation of risks assessment and management measures;
- strengthening of the state control over the compliance to the safety standards;
- independent audits of safety and protection of labor at the industrial facilities.

Poverty mitigation and prevention of social differentiation. In the framework of the measures taken by the country in order to transfer to sustainable development the further actions should be taken to mitigate the poverty by adoption of complex measures, especially in the rural areas. These results will be achieved through:

- economic growth of all regions of the country;
- development of agriculture with the use of innovated efficient agricultural technologies;
- improvement of the social protection system efficiency, including simplification of the bureaucratic procedures for receiving social allowances, improvement of employment policy;
- involvement of the business sector in the region in poverty mitigation activities.

Development of the civil society. In the Republic of Kazakhstan further measures on formation of the civil society should be taken through:

- development of the local self-governance;
- upbringing of the civil consciousness of the people through activities of the patriotic parties and public associations;
- development of the system of patriotic upbringing of the youth;
- strengthening of the society role in the process of transition to sustainable development;
- increase access of the population to information, development of "electronic government".

Culture and information. Sustainable development culture and information policy in Kazakhstan will be ensured by:

- creation and support of the cultural organizations at the national and local levels, especially in the rural areas;
- taking measures to conserve paleontological, archeological, and architectural monuments and cultural heritage of national and international significance;
- propaganda of the best achievements of Kazakhstan culture and arts at the international level;
- support of the significant components of the national culture, including cinema art, folk and symphonic music, aitys, dramatic theater, opera, ballet, and fine arts;
- improvement of patriotic orientation and professional culture of mass media work;
- creation of Kazakhstan segment of Internet, functioning on the basis of the openness of information.

Education and science. The system of education and science in Kazakhstan will comply with goals and principles of sustainable development. Improvement of education and science for sustainable development will be implemented on the basis of:

- improvement of the national system of multilevel education considering the priorities of the Strategic Development Plan of the Republic of Kazakhstan until 2010 for improvement of the quality of human resources and meeting needs of an individual

- and society;
- establishment of a number of elite educational institutions of international level with campuses;
- improvement of education at the scientific-methodical level, establishment of new structures, linking educational, scientific, and production processes;
- introduction of technological preparation in the secondary schools to develop new skills, including designing, decisions-making, make creative assignments, support high level of innovations;
- preparation of competitive personality, ready for active participation in social, economic and political life of the country;
- provision of equal access to educational resources for different categories of students, conditions establishment for senior school students in accordance with their individual capacities and expectancies for the future education, self-fulfillment and finding their place in the labor market;
- creation of possibilities for socialization of the students, efficient preparation of the school graduates for professional education;
- monitoring of national human resources identifying demands in brain power at national and regional level;
- reforming of the national science with a focus on the home and international traditions, developing the studies of the current and future needs, and formation of the scientific circles;
- formation of the national innovative system (NIS) as an important condition for linking the science and production;
- promotion of introduction of national scientific achievements into the practice;
- establishment and financial support of technological institutions for scientific research in the area of perspective technological works, so that target production schemes were based on technologies adapted to the local conditions, technologies for environment rehabilitation, and also technologies based on traditional knowledge;
- improvement of legislation in the field of protection of intellectual property, licensing, legal collaboration with the national and international investors and private businesses while using the products of scientific research.

3.4. Sustainable economy growth

Improvement of the resource use efficiency. Sustainable economic growth in Kazakhstan will be implemented through:

- structural reconstruction of economy with gradual decrease of raw materials export sector share;
- development of the "breaking technologies", passing ahead of foreign analogues, on the basis of stimulation of the development of science and innovations;
- introduction of innovative agricultural technologies;
- monitoring the losses of the national wealth caused by inefficient exploitation of the ecosystem, on the basis of integrated economic and environmental financial mechanisms;
- introduction of innovative scientifically grounded approaches to ecosystem exploitation, including environmentally friendly land use practices, as well as use of water, forest, mineral and other resources;
- increase of energy efficiency of the national economy in the framework of implementation of the National Programs and prevention of energy losses;
- technological reequipment of the country's economy, stimulation of the use of innovative technologies and prohibition of the import of the outdated technologies and equipment;
- decrease of the share of enterprises in the economic structure of the country, that exploit natural resources, and development of environmentally friendly high technology products;

- determination of the parameters of obligatory use of extracted mineral and biological resources;
- rehabilitation and use of valuable materials accumulated in waste disposal;
- introduction of land management and agricultural systems, adapted to the nature landscapes, development of the clean agricultural technologies, preservation and rehabilitation of natural fertility of soils in agricultural lands;
- prevention of all types of illegal use of natural resources, prevention of poaching and illegal use of objects and components of biological diversity;
- incentive for resource-saving and non-waste technologies introduction in all areas of economic activities;
- support of the environmentally efficient energy production, including use of renewable sources and recycled materials;
- prohibition of the inefficient use of resources, including burning of petroleum /gas flares;
- decrease of losses of energy and raw materials during transportation, among others, by ecology-safe de-centralization of energy production, optimization of the energy support system for small consumers;
- modernization and development of ecology-friendly types of transport, transportation system and fuel, including non-carbonic fuel;
- transfer to ecology-friendly public transport as main type of transport in large cities;
- development of ecology-friendly technologies for construction sector and reconstruction of housing complexes;
- support of goods production with maximum life-cycle.

Introduction of sustainable technologies. Creation of the technical potential for sustainable development of the country is closely connected with lasting, ecology-friendly economic technologies in industrial, agricultural, energy and water supply, urban management and transportation sectors.

These technologies are complex systems combining economic and safe production schemes, necessary communication and information tools, and new management and monitoring mechanisms (ecology marketing and management, insurance, control over nature preservation activity, ecology management systems etc).

Priority task of the industrial development of Kazakhstan is reconstruction of the industrial technologies types in strategic directions – integration, waste minimization, resource-and energy efficiency, close production cycles with a focus on elimination of environmental problems. Sustainable technological model as compared to a common production scheme implies series production, high speed, economic efficiency, centralized control and standardization, human factor, environmental safety, recycling, and simple maintenance.

In order to achieve the objectives of sustainable development in production sector the following measures should be taken:

- provision of the “breaking” technologies, going ahead of the local and foreign analogues;
- expertise of newly introduced and imported technologies for the purpose of their competitiveness and environmental safety;
- introduction of new technologies management models that provide environmental restructuring and modernization of the production as important preventive measures;
- development of the tools for decision making and formation of new infrastructure to introduce new technologies in the practice of economic activities, as well as the system of long-term planning, mechanisms of financial regulation, measures of public support, developed innovative structures, modernization and transformation of infrastructure.

Efficient and sustainable use of renewable resources and alternative energy sources.

In the Republic of Kazakhstan measures on efficient and rational use of renewable resources and alternative energy sources should be taken by:

- introduction of innovative technologies in use of land, water, forestry, fishery, biological

- resources(plant-raising and stock-breeding) and renewable sources of power;
- stimulation of efficient use of hydropower resources, solar and wind resources and other renewable resources and alternative energy sources;
- establishment of the Centers for sharing international experience in the area of energy and resource efficiency and use of renewable sources of power.

3.5. Environmental stability

Conservation and rehabilitation of the environment. The scientifically grounded measures for conservation and rehabilitation of landscape and biological diversity, sufficient for maintaining the ability of nature to regulate and compensate the losses, caused by anthropogenic activities, will be taken.

The measures on conservation and rehabilitation of the environment will be implemented through:

- improvement of the environment quality management system;
- use of ecosystem approach in ecosystem exploitation management;
- improvement of the system of the state, production, and public monitoring and environmental audit;
- development of the environment monitoring system;
- prevention of depletion and pollution of land, water, and air;
- decrease of anthropogenic impact on climate and ozone layer of the Earth;
- conservation and sustainable use of biodiversity;
- expansion of the conservation areas up to 10 % of the country's area;
- conservation and rehabilitation of the integrity of the nature complexes, including fragmentation prevention during economic activities by constructing water-development facilities, auto and railway roads, gas and oil pipes, power transmission lines and other facilities;
- recultivation of the areas depleted by anthropogenic activities;
- obligatory requirement of complete rehabilitation of the natural landscapes after lifecycle of production facilities;
- rehabilitation of zones of environmental disasters, space and military testing grounds;
- prevention of Caspian Sea shelf and neighbouring areas pollution;
- increase of recycled and utilized wastes of production and consumption;
- expansion of international cooperation.

Decrease of negative impact of the environment on the human health. Protection of the population from harmful environment impact is an important component of the state policy in the field of sustainable development.

The protection of the population from the negative environmental impact will be achieved through:

- environmental risks assessment and development of the programs for their reduction;
- full compliance with the environment quality standards in the residential areas;
- introduction of new approaches in city-planning with removal of the industrial objects outside the residential areas;
- tough requirements for the standards of the quality of tap and bottled drinking water;
- control over the housing environment, especially the radiation parameters;
- establishment of clinics for curing the diseases caused by environment impact;
- payment of compensations for the injury to health caused by the negative environment impact.

Prevention of emergency environmental disasters and environmental terrorism. The activities focused on prevention of emergency environmental disasters and terrorism and overcoming their potential consequences in the Republic of Kazakhstan will be implemented through:

- forecasting of the disasters that can cause the negative environment impact;
- population training of the rules of behavior, measures and ways of protection during the emergency disasters with negative environmental impact;

- introduction of obligatory environmental sections to the plans of disasters prevention and overcoming their consequences;
- legislative regulation of the zones with special regime of economic activities, zones of environmental disaster and crisis;
- prevention of sabotage and man-caused damage with negative impact on the environment;
- prevention of intentional use of chemical substances that may cause the environment damage;
- prevention of intentional fires, trade poaching, illegal felling, and provision of biological resources that are harmful for nature and agricultural ecosystems, and also introduction of alien species of flora and fauna, which causes ecological disturbance

Control over use and distribution of the genetically modified products, prevention of introduction of quarantine and alien harmful organisms. In the Republic of Kazakhstan the following measures will be taken to set control over the use of the genetically modified products and prevention of import and spread of quarantine and alien harmful organisms:

- provision of the efficient operation of the plants quarantine services in accordance with international standards;
- development and implementation of the set of measures on prevention of the penetration of quarantine, alien and harmful organisms to the country, as well as identification, and liquidation of the pestholes;
- control over the acclimatization in the country;
- development and implementation of the measures on prevention of illegal import of genetically modified organisms and products.

Economic tools of the environmental protection. In the Republic of Kazakhstan the following economic tools will be used:

- allotting funds for activities on environmental protection from the national and local budgets, enterprises, international loans, grants and other sources with the possibility to establish specialized funds;
- running of projects competition in the field of environmental protection and rational ecosystem exploitation with further financing from the state and local budgets in accordance with the legislation of the republic of Kazakhstan on state procurement;
- introduction of the principle “the polluter pays” meaning that the polluter should bear the responsibility for the financial support of the measures on environmental protection and compensation of the potential damage or should stop the operation of the facility;
- increase of the emissions payments and administrative penalties for violation of the environmental legislation of the Republic of Kazakhstan with the further giving up the emissions payments accompanied by stricter administrative responsibility for breaking the law
- environmental insurance for the damage to the environment, and also establishment of the funds within the enterprises to be used for the rehabilitation of the environment at the liquidation stage;
- inclusion of the full cost of the nature objects, considering its ecosystem and cost of environmental works and services in the economic indicators;
- introduction of quotas trade system on emissions to the environment;
- introduction of market mechanism in the environmental protection, including recycling and reuse of the industrial goods;
- use of international finance and economic tools in the area of environmental protection, stated in the international conventions and agreements.

Scientific approach of the environmental protection. Scientific approach of the environmental protection in Kazakhstan is an important component of the state performance improvement in transition to sustainable development. Science in the field of environmental protection in the Republic of Kazakhstan should develop in the following

directions:

- scientific studies in the field of sustainable development theory;
- development of the scientific base for environmental management;
- establishment of the system of indicators of the environment status;
- environmental zoning;
- ways of solving local environmental problems;
- creation of new resource -saving, low- waste, environmentally efficient technologies;
- development of scientific principles and technologies in the use of renewable biological resources (forestry, water, hunting, herbal and others) ensuring their sustainable reproduction;
- development of efficient methods of biodiversity preservation;
- analysis of alien and genetically modified types of living organisms spreading and development of appropriate control methods and ways of negative impact reduction;
- development of methodology and methods of environment-economic assessment, including the cost of the nature objects considering its ecosystem function;
- measures and methods of prevention and elimination of pollutions, environmental rehabilitation and utilization of dangerous waste;
- study of the correlation between people's diseases and change of the environment quality;
- development of new methods of environmental monitoring, information technologies with the purpose of state environmental management.

3.6. Sustainable development of the regions

In order to ensure sustainable development of the regions of Kazakhstan, introduction of ecosystem (basin) approach that considers not only administrative units, but ecosystems as developing objects should take place.

Sustainable development at the territorial level in the Republic of Kazakhstan can not be realized in the framework of administrative unit only, because nature with its resources and ecosystems has the cross-regional pattern in Kazakhstan.

In this regards, the development of the regional actions plans on transition to sustainable development should be conducted in the following eight zones of ecosystem development on the basin principle: Aral-Syrdariya, Balkhash-Alakol, Irtysch-Yesil, Zhayik-Caspian, Nura-Sarysui, Tabol-Torgai, Shu-Talas.

Development of the programs of sustainable territorial development on the basis of ecosystem and cross-regional principle will allow to:

- ensure efficient ecosystem exploitation and conservation based on the single approach to territories management that comprise integral ecosystems;
- overcome the inefficient nature resource management, intersectoral disconnection, and replication of functions;
- strengthen the territorial integrity of the Republic of Kazakhstan and decrease social and economic differentiation between the regions;
- create conditions for the development of ecosystem approach in international relations, improve collaboration with the neighboring countries within the joint activities aimed at conservation of cross-regional ecosystems.

At the same time the basin principle does not replace any other forms of territorial division, including administrative division of the country, establishment of social-economic corporations, economic clusters. Within the framework of sustainable development of zones the integration processes will be implemented based on environmental interests.

Kazakhstan can give an example of a new approach to territorial sustainable development at the ecosystem level.

3.7. Institutional support

Institutional support of the transition of the Republic of Kazakhstan to sustainable development should be provided by the Sustainable Development Council, development

institutions, scientific institutions, coordination centers, and civil society institutions.

Main body, implementing the mission of the state in the field of transition to sustainable development is the Sustainable Development Council (SDC), which aims to introduce the principles of sustainable development in all spheres of the governmental and public activities.

An authorized agency should be formed for coordination the activity of all governmental agencies on issues related to sustainable development, sustainable environment, and performing scientifically-grounded demographic policy.

The development institutions shall deal with innovative projects and programs for achieving target indicators and indexes in accordance with the sustainable development program.

The center on issues of sustainable development will coordinate scientific and educational activity in this sphere.

Non-governmental coordination centers will implement the goals and objectives on key directions of the Concept in cooperation with public and international organizations.

4. EXPECTED RESULTS

Implementation of the given Concept will facilitate:

- increase of the quality of life standards to the level of the most competitive and developed countries of the world;
- improvement of the resource use efficiency as one of the key mechanisms of economic growth;
- population number increase of the country up to 18 million by 2024, improvement of the quality of labor resources;
- improvement of environmental status due to decrease of anthropogenic pressure and solution of "historical" environmental problems;
- improvement of sustainable development of the regions of Kazakhstan;
- conducting of a number of international forums on sustainable development in the Republic of Kazakhstan.

MAIN TERMS, USED IN THE CONCEPT

Index of Environmental Sustainability - an indicator annually counted by Yale Center on Environmental Legislation and Policy (Yale University, USA) and Columbia Center of the World Information Network on Earth Sciences (Columbian University, USA), which includes 76 parameters and 16 criteria, such as ecosystems status, environmental stress, environmental aspects of the human health, social and institutional capacity and international activity of a country;

Jinni Index – ratio of the incomes of 10% of the poorest and 10% of the richest groups of population;

Quality of life – a complex indicator determined as product of average standardized life interval, living standard, and environment quality (Kilo Watt/hour);

Environment quality – a ratio of power losses in the current year to the power losses in the previous year;

Power – an instantaneous speed of energy transformation of an object, measured in units qualifying the characteristics of different public and economic processes (Giga Watt);

Power production – an aggregate manufactured product, measured in Power unit (Giga Watt);

Power consumption – aggregate consumption, measured in Power unit (Giga Watt);

Power losses – the difference between consumed power the previous year and power production in the current year (Giga Watt);

Average standardized life expectancy – an indicator of expected average life interval of population, divided by 100;

Living standard – power production in the current year per capita (Kilo Watt/capita);

Sustainable development – development that satisfies the needs of the living generation and that doesn't jeopardize the potentialities of the future generations;

Ecosystem (basin) principle – an approach in solving the regional problems of sustainable development at the level of large water basins;

Resource use efficiency (RUE) – a ratio of power production in the current year to power consumption in the previous year.



**ACTION PLAN
FOR 2007-2009
ON THE IMPLEMENTATION
OF TRANSITION
OF THE REPUBLIC
OF KAZAKHSTAN
TO SUSTAINABLE
DEVELOPMENT
FOR 2007-2024**

Action Plan for 2007-2009 on the Implementation of Transition of the Republic of Kazakhstan to Sustainable Development for 2007-2024

№ п/п	Activity	Outcome form	Responsible for the implementation	Term of the Plan
1	2	3	4	5
1. Normative – legal, institutional and staffing provisions 1.1. Normative –legal basis for sustainable development				
1.1.1.	Carry out analysis of the normative legal basis of the Republic of Kazakhstan from the point of view of the necessity to introduce amendments targeted at ensuring sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP	IV quarter of 2008
1.1.2.	To introduce proposals on elaboration of legislation regarding issues of sustainable development of the Republic of Kazakhstan, including renewable sources of energy and alternative energy sources	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MLSPP, MEBP, MoH, MEMR	II quarter 2007
1.2. Institutional arrangements				
1.2.1.	To introduce proposals on the assignment of an authorized body in the sphere of sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP	II quarter 2007
1.2.2.	To introduce proposals on setting up a center on issues of sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP	IV quarter 2007
1.2.3.	To introduce proposals on the organization of international experience dissemination related to energy and resource saving and to the use of renewable sources of energy	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MEMR	IV quarter 2008
1.2.4.	To introduce proposals on setting a Eurasian Water Center	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	IV quarter 2008
1.2.5.	To introduce proposals on ensuring compliance of the activity of state structures and social-business corporations with the principles of sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MIT	IV quarter 2007

1.3. Training staff in sustainable development

1.3.1.	To introduce proposals on training, retraining and qualification advancement of specialists in the field of sustainable development	Proposals to the Government of the Republic of Kazakhstan	MES (convocation), MOEP, MoA	IV quarter 2007
1.3.2.	To take measures on integration of sustainable development issues into curricula and educational programs	Information to MOEP	MES	July 15, 2009

2. Strategic planning and integration of development mechanisms

2.1.	To develop mid- and long term plans of transition to sustainable development.	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), Oblast Akims, Akims of Astana and Almaty cities	July 30, 2009
2.2.	To introduce proposals on development of evidence-based system of indicators of sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), SA, MEMR, MoH	IV quarter 2008
2.3.	To carry out monitoring of the achievements of sustainable development indicators	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), SA	July 30, 2009
2.4.	To develop proposals on effective use of energy and renewable resources	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MEMR, MEBP, MoA	I quarter 2008
2.5.	To develop annual Progress Report regarding transition of Kazakhstan to sustainable development	Report to the Government of the Republic of Kazakhstan	MOEP (convocation), SA, MEBP, MIT, MoH, MLSPP	I quarter, annually

3. Sustainable development of the regions

3.1.	To introduce proposals on carrying out a comprehensive study of the territory of the Republic of Kazakhstan with the aim of its zoning according to ecosystem (basin) principle and in order to determine the limits of anthropogenic burden and develop recommendations as to the rational use of the territory and resources	Proposals to the Government of the Republic of Kazakhstan	MOEP	I quarter 2009
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3.2.	To develop regional action plans on transition to sustainable development for the following eight zones of sustainable ecosystem development according to basin-based principle: Aral-Syrdarya, Balkhash –Alakol, Irtysh, Yesil, Zhaiyk –Caspian, Nura-Sarysu, Tobol –Torgai, Shu-Talass	Report to the Government of the Republic of Kazakhstan	MOEP (convocation), Oblast Akims, Akims of Astana and Almaty cities	IV quarter 2009
4. Society sustainable development 4.1. Demographic policy				
4.1.1.	To take measures aimed to improve reproductive health in order to reduce infant and maternal mortality rates	Information to MOEP	MoH	January 15, July 15, annually
4.1.2.	To ensure development and implementation of gerontology measures aimed to improve the quality of life of aged population groups and to increase average life expectancy of the population	Information to MOEP	MoH (convocation), MLSPP	January 15, July 15, annually
4.2. Industrial safety and protection of labor				
4.2.1.	To introduce proposals on the implementation of international standards in the field of labor safety and protection in industrial companies	Information to MOEP	MLSPP (convocation), MIT	As of July 15, annually
4.2.2.	To develop methodological approaches to dissemination of the culture of safe behavior and to increase of the responsibility of both employers and employees for meeting safety requirements	Information to MOEP	MLSPP	July 15, 2009
4.2.3.	To develop a system of risk assessment and risk management	Information to MOEP	MLSPP (convocation), MMES	July 15, 2009
4.2.4.	To take measures aimed to enhance state control over the implementation of safety norms	Information to the Government of the Republic of Kazakhstan	MLSPP (convocation), MES	As of July 30, annually
4.2.5.	To introduce independent audit procedures regarding labor safety and protection in production sites	Proposals to the Government of the Republic of Kazakhstan	MLSPP	IV quarter 2009

4.3. Poverty alleviation and social stratification prevention

4.3.1.	To take measures to improve the efficiency of the system of population social protection, including simplification of bureaucratic procedures related to getting social allowances and to perfect employment policy	Information to MOEP	MLSPP (convocation), MoJ, MEBP, Oblast Akims, Akims of Astana and Almaty cities	As of July 15, annually
4.3.2.	To take measures to involve business communities in the country regions into resolution of poverty-related problem	Information to the Government of the Republic of Kazakhstan	Oblast Akims, Akims of Astana and Almaty cities	As of July 30, annually

4.4. Civil society development

4.4.1.	To carry out monitoring of the work implemented with the aim to foster civil consciousness of the population through the activity of public associations	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MCI	As of July 30, annually
4.4.2.	To develop proposals regarding the enhancement of the public role in the process of transition to sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MCI	I quarter 2009

4.5. Culture and information

4.5.1.	To introduce proposals on enhancement of patriotic nature and professional culture of mass media	Information to MOEP	MCI	July 15, 2009
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4.6. Education and science

4.6.1.	To develop proposals on setting up a number international level elite schools in the country and students' campuses	Proposals to the Government of the Republic of Kazakhstan	MES	III quarter 2007
4.6.2.	To introduce proposals on the formation of the national innovative system as the most important precondition for the establishment of links between science and production	Proposals to the Government of the Republic of Kazakhstan	MIT (convocation), MES	II quarter 2008
4.6.3.	To introduce proposals on stimulating the introduction of national research achievements into practice	Proposals to the Government of the Republic of Kazakhstan	MES	II квартал 2008 года
4.6.4.	To work out a complex of measures aimed at development of a system of technological institutes including those of a regional level, polytechnic colleges, vocational-technical schools and educational- training complexes	Information to MOEP	MES (convocation), MIT, MEMR, Oblast Akims, Akims of Astana and Almaty cities	July 15, 2008

5. Sustainable economic process

5.1. Increase of the efficiency of resource utilization

5.1.1.	To carry out analysis of the possibilities for structural economy reorganization with gradual increase of the share of processing sector	Report to the Government of the Republic of Kazakhstan	MIT (convocation), MEMR, MEBP	I quarter 2008
5.1.2.	To introduce proposals on identification of priority «break through» technologies, that would outstrip foreign analogues for them to be implemented in the Republic of Kazakhstan	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MIT, MES, MEMR	IV quarter 2008
5.1.3.	Carry out analysis of the global trends with regard to introduction of state-of-the-art evidence-based approaches to nature management, including environmental approaches to the use of land, water, forest, mineral and other resources	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
5.1.4.	To develop evidence-based model of bringing up indicator of the efficiency of resource utilization for conditions of Kazakhstan	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, MEMR	July 30, 2009
5.1.5.	To develop measures aimed to reduce the importation of outdated technologies and equipment and stimulate the use of modern technologies	Proposals to the Government of the Republic of Kazakhstan	MIT (convocation), MOEP, MES, MEMR, MoA	IV quarter 2009 года
5.1.6.	To carry out analysis of the ways to reduce the share of nature exploiting companies within the structure of the national economy, to develop science-intensive, environmental and high technology-based productions	Report to the Government of the Republic of Kazakhstan	MOEP (convocation), MIT, MEBP, MES, MoA	IV quarter 2009
5.1.7.	To come up with the proposals on the introduction of arrangement systems for agricultural land and agriculture management, adjusted to natural landscapes, to development of environmentally clean agricultural technologies and rehabilitation of natural land fertility of agricultural lands	Information to MOEP	MCX (convocation), ALR	July 15, 2009

5.1.8.	To enhance the work on prevention of all types of illegal use of natural resources, control of poaching and illicit trade of objects and products of biological resources	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, Mol	January 30, July 30, annually
5.1.9.	To introduce proposals on encouragement of introduction of resource-saving and wasteless technologies into all the spheres of economic activity	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MIT, MEMR, MoA	IV quarter 2009
5.1.10.	To introduce proposals on the legislative back up of rational utilization of resources	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MEMR, MIT	IV quarter 2008
5.1.11.	To develop measures on: upgrading and development of environmentally safe transport modes and transport communications, fuel, including non-carbonic one; on switching over to environmentally safe public transport as the main type of vehicle in big cities; on grounding the necessity to develop environmentally safe construction technologies and reconstruction of housing complexes	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MTK, MEMR, MIT	July 30, 2009

5.2. Introduction of sustainable and break-through technologies

5.2.1.	To develop criteria, based on which technologies could be listed among the category of "breakthrough", leading ones in terms of their indicators, both domestic and overseas ones.	Report to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	IV quarter 2007
5.2.2.	To consider substantiation of break-through technologies along the following directions: «Management organization», «Water with predetermined properties», «Education», «Housing», «String transport», «Energy», «Management of Nanotechnologies»	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES, MIT, MTK, MEMR	July 30, 2009
5.2.3.	To propose introduction of sustainable production and consumption models	Proposals to the Government of the Republic of Kazakhstan	MIT (convocation), MEMR, MOEP	IV quarter 2007

5.3. Effective and rational use of renewable resources and alternative sources of energy

5.3.1.	To develop measures to stimulate energy saving, rational use of hydropower resources, objects of solar and wind energy and other renewable resources and alternative sources of energy	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MEMR, MoA	III quarter 2008
5.3.2.	To introduce proposals on transition to alternative sources of energy supply in administrative buildings of public institutions in the Republic of Kazakhstan	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MEMR	II quarter 2008

6. Environmental sustainability**6.1. Conservation and restoration of natural environment**

6.1.1.	To carry out monitoring of environmental sustainability on the basis of environmental sustainability index and to develop measures aimed to increase Yale index of environmental sustainability for the Republic of Kazakhstan	Information to the Government of the Republic of Kazakhstan	MOEP	As of July 30, annually
6.1.2.	To propose ecosystem approach introduction into nature management approach	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	IV quarter 2009
6.1.3.	To develop problem-oriented model of the monitoring system for environmental protection with the use of GIS technologies	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
6.1.4.	To carry out analysis of the implementation efficiency of republican and regional environmental programs, targeted at prevention of depletion, contamination of land and water resources and air pollution	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	January 30, July 30, annually
6.1.5.	To ensure measures on reduction of anthropogenic impact upon the Earth climate and ozone layer within the framework of current international agreements	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
6.1.6.	To carry out measures on biological diversity conservation and sustainable development	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	July 30, 2009

6.1.7.	To take measures on conservation and rehabilitation of the ecosystems integrity, including prevention their fragmentation in the process of economic activity when building hydrotechnical facilities, motor roads and railways, gas and oil pipelines, power transmission lines and other line structures	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MTC, MEMR	As of July 30, annually
6.1.8.	To ensure implementation of projects dealing with reclamation of territories, faulted by anthropogenic activity	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
6.1.9.	To introduce proposals on legislative back-up of mandatory requirement to restore natural landscapes after the completion of the life cycle of manufacturing entities	Proposals to the Government of the Republic of Kazakhstan	MOEP	II quarter 2008
6.1.10.	To carry out measures on the rehabilitation of zones of environmental disaster, of rocket and space launching grounds within test systems	Information to the Government of the Republic of Kazakhstan	MOEP	As of July 30, annually
6.1.11.	Carry out measures aimed to prevent contamination of the Caspian Sea shelf and adjoining to it territories	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	As of July 30, annually
6.2. Formation of the system of management of chemical substances				
6.2.1.	To endorse and implement National Plan of the Republic of Kazakhstan regarding persistent organic pollutants	Draft Resolution of the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, MIT	IV quarter 2009
6.2.2.	To carry out detailed inventory of deliberate sources of persistent organic pollutants and to ensure the implementation of pilot projects on land rehabilitation	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
6.3. Reduction of harmful environmental impact upon the health of the population				
6.3.1.	To introduce proposals on harmonization of sanitary-hygienic norms of the environment quality on the territory of settlements with international standards	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoH, Oblast Akims, Akims of Astana and Almaty cities	IIIV quarter 2009

6.3.2.	To enhance measures of control over the environment status in houses, especially with regard to radioactive parameters	Information to MOEP	MOH (convocation), MOEP	July 15, 2009
6.4. Prevention of emergency situations and ecological terrorism				
6.4.1.	To introduce proposals on population education in behavioral rules, protection activities and ways in emergency situations with environmental impact	Proposals to the Government of the Republic of Kazakhstan	MES (convocation), MOEP, Oblast Akims, Akims of Astana and Almaty cities	IV quarter 2008
6.4.2.	To ensure inclusion of mandatory environmental sections into the plans for emergency situation prevention and dealing with their aftermaths	Information to MOEP	MES (convocation), Oblast Akims, Akims of Astana and Almaty cities	As of July 15, annually
6.4.3.	To improve legislative regulation with regard to introduction of zones with special regime of economic activity, zones of ecological disaster and crisis	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), Oblast Akims, Akims of Astana and Almaty cities	I quarter, annually
6.4.4.	To undertake measures aimed to prevent diversions and man-made disasters with negative environmental impact	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	As of July 30, annually
6.4.5.	To carry out analysis of efficiency of measures aimed to prevent forest-steppe fires, industrial poisoning, illegal logging and harvesting vegetal raw materials, causing destruction of natural and agricultural ecosystems as well as prevention of importation and dissemination of living species, causing violations in natural objects and systems with terrorism aims	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, MES	As of July 30, annually
6.5. Control over the use and dissemination of genetically modified organisms, importation prevention or prevention of independent penetration of quarantine and alien hazardous organisms				
6.5.1.	To carry out analysis of the efficiency of measures on prevention of penetration to the country territory, detection, localization and elimination of the spread foci of quarantine and alien hazardous organisms	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	As of July 30, annually

6.5.2.	To introduce proposals on prevention and uncontrolled importation of genetically modified organisms and food products	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	II quarter, annually
6.6. Economic instruments of environmental protection				
6.6.1.	To develop a model of implementation of the principle «pollutant pays» in order to stimulate nature-conservative investments	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2009
6.6.2.	To improve methodology of tariff identification for emission into environment and administrative fine for the breach of the nature-conservative legislation of the Republic of Kazakhstan	Information to the Government of the Republic of Kazakhstan	MOEP	July 30, 2008
6.6.3.	To develop the system of ecological insurance against environmental damage	Information to the Government of the Republic of Kazakhstan	MOEP	January 30, July 30, annually
6.6.4.	To scientifically ground methods that stipulate inclusion of the total cost of natural objects given their environment formation function as well as the cost of nature-conservation (ecological) works (services) into economic indicators into economy indexes	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	July 30, 2009
6.6.5.	To introduce proposals on economic measures to stimulate repeated use and recycling of wastes	Proposals to the Government of the Republic of Kazakhstan	MOEP	IV quarter 2009
6.6.6.	To develop approaches to the use of international financial-economic mechanisms in the area of environmental protection, stipulated by international treaties	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MEBP	July 30, 2009
6.6.7.	To introduce proposals on setting up Central-Asian ecological-economic sustainable development zone	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MFA	IV quarter 2009
6.6.8.	Based on international experience to implement a pilot project of economic evaluation and payment for ecosystems services in the Republic of Kazakhstan	Proposals to the Government of the Republic of Kazakhstan	MOEP	IV quarter 2009

6.7. Scientific approach to environmental protection

6.7.1.	To develop scientific principles of the theory of sustainable development with the view of its application in conditions of the Republic of Kazakhstan	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	July 30, 2009
6.7.2.	To put up together scientific basis of ecosystem environmental management	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	July 30, 2009
6.7.3.	To prepare proposals on environmental ecological zoning based on the implementation of complex nature	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	IV quarter 2008
6.7.4.	To develop research principles and technologies of the use of renewable biological resources (forest, water, game medicinal and etc.) that ensure their sustainable reproduction	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, MoH	July 30, 2009
6.7.5.	To introduce proposals on development of effective methods of biodiversity conservation	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA	IV quarter 2009
6.7.6.	To carry out the study of interconnection between human diseases and changes in environmental quality	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MoH, MES	July 30, 2009
6.7.7.	To introduce proposals on carrying out analysis of the spread of alien and genetically modified species of living organisms and methods of control to decrease negative impact of these processes	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MoA, MES	IV quarter 2008
6.7.8.	To ensure scientific back-up of working out and development of state-of-the-art methods of environmental monitoring and also informational technologies with the purpose of public administration in the area of nature management and environmental protection	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES, MoA	July 30, 2009

7. Political foundation of sustainable development

7.1. Internal policy

7.1.1.	To introduce proposals on perfection of democratic procedures in social-political sphere with the aim to ensure sustainable development	Proposals to the Government of the Republic of Kazakhstan	MJ (convocation), MCI	Annually
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7.2. External political activities

7.2.1.	To ensure dissemination of information pertaining to Kazakhstan initiative in the field of sustainable development via diplomatic representations of the Republic of Kazakhstan	Information to MOEP	MFA (convocation), MOEP	As of July 15, annually
7.2.2.	To hold international forums dedicated to cost sharing in the area of development of the institutes of market economy in the countries with developed and transit economy	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MFA	II quarter 2008
7.2.3.	To introduce proposals on holding international Ministerial conference on environmental protection in Astana city.	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MFA	IV quarter 2008
7.2.4.	To ensure participation of the Republic of Kazakhstan in working and official meetings of the UN Commission on Sustainable Development	Information to the Government of the Republic of Kazakhstan	MFA (convocation), MOEP, MIT, MEMR	As of July 30, annually

8. Informational back up

8.1.	To ensure publication of an annual statistic book «Environmental Protection and Sustainable Development of Kazakhstan»	Statistical collection	SA (convocation), MOEP, MoH, MoA, ALR	Annually
8.2.	To develop an Internet portal "Kazakhstan – sustainable Development" and ensure its functioning	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), AIC	July 30, 2008
8.3.	To prepare the publication of the «White» book on sustainable development of the Republic of Kazakhstan	Information to the Government of the Republic of Kazakhstan	MOEP (convocation), MES	July 30, 2008

8.4.	To introduce proposals on holding I and II international research-practical conference: «Sustainable development: world, continent, country» in the cities of Astana and Almaty	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MES, MCI	IV quarter 2009
8.5.	To introduce proposals on holding a number of international round table meetings on sustainable development	Proposals to the Government of the Republic of Kazakhstan	MOEP (convocation), MES, MoH, MLSPP	IV quarter 2009
8.6.	To introduce proposals on holding seminars and workshops on pertinent issues of sustainable development in a number of world universities	Proposals to the Government of the Republic of Kazakhstan	MES (convocation), MOEP	IV quarter 2009

Abbreviations:

MoH	- Ministry of Health of the Republic of Kazakhstan
MFA	- Ministry of Foreign Affairs of the Republic of Kazakhstan
MIT	- Ministry of Industry and Trade of the Republic of Kazakhstan
MCI	- Ministry of Culture and Information of the Republic of Kazakhstan
MES	- Ministry of Education and Science of the Republic of Kazakhstan
MOEP	- Ministry of Environmental Protection of the Republic of Kazakhstan
MoA	- Ministry of Agriculture of the Republic of Kazakhstan
MTK	- Ministry of Transport and Communication of the Republic of Kazakhstan
MLSPP	- Ministry of Labor and Social Protection of the Republic of Kazakhstan
MEBP	- Ministry of Economy and Budget Planning of the Republic of Kazakhstan
MEMR	- Ministry of Energy and Mineral Resources of the Republic of Kazakhstan
MJ	- Ministry of Justice of the Republic of Kazakhstan
MES	- Ministry for Emergency Situations of the Republic of Kazakhstan
Mol	- Ministry of Interior of the Republic of Kazakhstan
MoD	- Ministry of Defense of the Republic of Kazakhstan
MTS	- Ministry of Tourism and Sports of the Republic of Kazakhstan
ALR	- Agency of the Republic of Kazakhstan on Land Resource Management
AIC	- Agency of the Republic of Kazakhstan on Information Science and Communication
AC	- Agency of the Republic of Kazakhstan on Statistics (Statistic Agency)

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