REPORT ON
IMPLEMENTING THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT IN THE RUSSIAN FEDERATION.
RUSSIAN OUTLOOK ON THE NEW PARADIGM FOR SUSTAINABLE DEVELOPMENT.
PREPARING FOR "RIO + 20"

Moscow • 2012

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FOREWORD

On 20-22 June, 2012 Rio de Janeiro will host the United Nations Conference on Sustainable Development to be convened 20 years after the UN Conference on Environment and Development in 1992. The key topics for the upcoming Rio + 20 Conference will be "green" economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development. At the same time the progress will be reviewed of the world community in implementing the principles of sustainable development.

As part of the preparation for Rio + 20 Conference in 2011 the President of the Russian Federation D.A. Medvedev requested to form the Interagency Working Group of Experts to ensure Russia's participation in the UN Conference on Sustainable Development in 2012 that would consist of the representatives of the federal executive authorities, third sector organizations, higher education institutions and the Russian Academy of Sciences.

This report prepared by the Group states the key outcomes of the public policy of the Russian Federation on the issues of sustainable development over the past 20 years, covering mainly the 1992-2011 period, the Russian stand on Rio + 20 agenda (excluding the issue of the an institutional framework for sustainable development in the UN-based system) and Russia's vision of a new paradigm of global development.

The opinions of domestic and foreign experts, quoted in the report, along with the materials from the federal executive bodies, the Russian Federation constituents, third sector organizations, the state statistics summaries, and the findings of international organizations seem to show, no doubt, an incomplete, but realistic picture of the Russian Federation progress towards sustainable development.

The Group expresses its appreciation to OAO Gazprom Company for its useful contribution to the report preparation.

Head of the Interagency Working Group of experts on Russia's participation in the UN Conference on Sustainable Development (Rio + 20), Advisor to the President of the Russian Federation.

A. Bedritskiy

“…Murders in the form of wars with famine and malnutrition continuously embracing hundreds of millions of people immensely weaken the progress of the process. The capabilities to act quickly and almost spontaneously tend to grow”

V.I. Vernadsky (1863–1945),
a greatest Russian scientist of the XX century in the field of earth sciences

"The thing solid and lasting, the thing vital and worthwhile, and the thing with a future is the thing that is built in harmony with nature"
V.V. Dokuchaev (1846–1903),
a well-known geologist and soil scientist, the founder of the Russian school of Soil Science and Soil Geography

"Even by his mere activities a man promotes the approaching end, for the civilization that is only exploiting, and not restoring anything cannot have a result other than an end that comes as quick as it can be "
N.F. Fedorov (1828-1903), Russian philosopher

"We all want to build a country and countries that would enter the era of sustainable development. Sustainable development is not only the improvement of the material side of life, development of infrastructure, science and education. Sustainable development is a stable state of the human spirit, and this, of course, belongs to the level of morality. And if to construct a person's life in such a way that his state of mind is not perturbated, it is important that the justice is underlying the foundation of social life"
Kirill, the Patriarch of Moscow and All Russia

"In the coming decade, we need to change the situation. A fair system of society and its economy – is the main condition of our sustainable development in these years"
President of the Russian Federation V.V. Putin

INTRODUCTION

The twentieth century has brought many opportunities to mankind. On the one hand - this is the opportunity of economic, technological, and spiritual development, and on the other hand - the possibility of bringing the existence of humanity to an end through nuclear and global ecological catastrophe. Nuclear disasters can destroy humanity in a single historic moment, while an environmental disaster is emerging quietly and slowly, dooming humanity to degradation and slow extinction. The environmental hazards which translate into a loss of biodiversity, the reduction of reserves of non-renewable resources, environmental degradation, depletion of the ozone layer, and global climate change are increasingly called the crisis in the relations between humans and the natural systems of the Earth. However, the word "crisis" does not sound so hopeless leaving the opportunity for the salvation of humans, if they become aware of the environmental threat and take steps to prevent it. Therefore, since the last quarter of the twentieth century, the central problem of modern science is the search for optimal interaction within the "man - nature" system and ensuring sustainable development of this system.

Based on the findings from the scientific research by the International Commission on Environment and Development, headed by the Prime Minister of Norway Gro Harlem Brundtland in 1987, a report "Our Common Future" was prepared, which formulated the basic principle of sustainable human development, "Sustainable development implies the satisfaction of the needs of the present generation without compromising the ability of the future generations to meet their own needs".

The principles of sustainable development have been adopted by the heads of governments of 150 countries at the United Nations Conference on Environment and Development in Rio de Janeiro in June 1992. The 21 agenda adopted there designated the way of making development sustainable on the social, economic and environmental grounds. The final documents define global and intergovernmental goals of sustainable development, the general activity areas in this regard for developed and developing countries, as well as socio-economic and political priorities of the joint efforts that promote improvement of the life environment and addressing environmental and social goals.

In the 1990s, Russia carried out a series of political reforms in the field of environmental protection by adopting several new federal laws and policy initiatives, including the resolution to apply economic instruments, the policy of decentralization and devolution of powers to the level of the constituents (regions), as well as raising public awareness and wider participation in addressing environmental problems.

The implementation of the idea of sustainable development in Russia began with the issue of the RF Government Order dated August 19, 1992 No.1522-r commissioning the an establishment of the Interagency Commission to develop proposals for implementing the resolutions of the United Nations Conference on Environment and Development. The commission was instructed, inter alia, by November, 1st 1992 to prepare and submit to the Government of the Russian Federation, the draft national action plan for implementing the resolutions of this conference. According to Decree of the President of the Russian Federation dated February 4, 1994 No.236 "On the National Strategy of the Russian Federation for Environment Protection and Sustainable Development" to address the priority tasks the Government of the Russian Federation was instructed to approve the Action Plan of the RF

Government for Environmental Protection for 1994-1995 as the first phase of implementation of the main provisions of the said strategy, and for the long term transformations - to develop and submit to the President of the Russian Federation a draft concept of transition of the Russian Federation towards the model of sustainable development. The draft concept incorporating the results of the discussion has been reviewed and approved, in essence, on January 4, 1996, at the Government sitting, and on April 1, 1996 the President of the Russian Federation issued a decree No.440 approving the *Concept of transition of the Russian Federation towards sustainable development*. In December 1996, the Ministry of Economics of Russia pursuant to the Resolution of the RF Government No.559, dated May 8, 1996 "On development of the draft national strategy for sustainable development of the Russian Federation", submitted the strategy first draft to the Government. Since the most important provision of the Russian Federation Concept of transition towards sustainable development at the initial stage was a commitment to achieve stability in the society, dictated by the need to address acute economic and social problems, a draft 'Medium-Term Programme for 1997-2000. Structural Change and Economic Growth" was prepared on behalf of the RF Government. Unfortunately, the National Strategy for Sustainable Development of the Russian Federation, the draft of which was discussed in December 1997 at the sitting of the RF Government, was not approved. However, the draft strategy was later refined in the State Duma of the Federal Assembly of the Russian Federation by the Commission on Sustainable Development and the Advisory Board of the Commission, as part of preparation for the World Summit on Sustainable Development in Johannesburg, 26 August - 4 September 2002. The Concept of Sustainable Development was further improved in the Ecological Doctrine of the Russian Federation approved by the RF Government resolution No.1225-r, dated 31 August, 2002. Thus, Russia has begun the implementation phase of sustainable development in the new market economy conditions.

The systemic crisis that Russia had gone through in the 1990-s had a negative impact on economic, environmental and social issues in the context of sustainable development when a whole series of measures prescribed by the regulatory framework were not implemented in full, some of them remaining only on paper.

Nevertheless, the "National Assessment of the Progress of the Russian Federation in its Transition to Sustainable Development"[1] was prepared in 2002 reviewing the results of the work completed in Russia in the 1990s in the field of sustainable development, just in time for the World Summit on Sustainable Development in Johannesburg. In this document, based on the evaluation of the main trends and factors influencing the progress in sustainable development at the national and international levels, it was stated that Russia is steadily moving towards the path of sustainable development.

Even a fragmentary analysis of the results of Russia's activities at the end of the past decade of restoration and development shows a slow progress towards the implementation of the principles of sustainable development. Because up to now there were no statutorily defined indicators of sustainable development, the report uses the available statistics on indicators that reflect different aspects of sustainable development.

[1] Prepared by the Ministry of Economic Development and Trade of the Russian Federation with the participation of the Ministry of Foreign Affairs of the Russian Federation and the Ministry of Natural Resources of the Russian Federation, in collaboration with a group of independent experts in 2002.

1. PROGRESS IN THE IMPLEMENTATION OF THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT IN THE RUSSIAN FEDERATION OVER THE PAST 20 YEARS

1.1. Existing approaches to the evaluation of sustainable development

The UN Conference on Environment and Development in 1992 adopted the principles of sustainable development of the world community that best describe human development in the framework of sustainable development, taking into account the environmental, economic, social and political components. The next step was the establishment of specific goals of global development on the basis of these principles and a mechanism to monitor the achievement progress.

In 2000, at the Millennium Summit the Millennium Declaration of the United Nations was adopted, pursuant to which the countries have committed themselves to make a right to development a reality for everyone and to make humanity free from want and poverty. According to the Declaration, the countries agreed to establish time-bound and measurable goals and targets for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. Also identified were the Millennium Development Goals (MDG) by 2015. Today, the MDG progress evaluation is being performed across more than 60 indicators in 190 countries. In 2005 the United Nations Development Programme (UNDP) adapted the MDG concept for Russia to achieve the most effective contribution to development at the global level. In 2005 and 2010 the UNDP reports have been prepared on MDG progress in Russia.

However, the MDG indicators are not exhaustive indicators of sustainable development. There are many other approaches developed by UN agencies, the Organization for Economic Cooperation and Development (OECD), the World Bank and various research organizations.

The concept of the transition of the Russian Federation towards sustainable development adopted in 1996[2] proposed the following indicators in such areas as the quality of life, the level of economic development and environmental well-being - that is, all the components of sustainable development - social, economic and environmental ones as factors reflecting the progress of implementing sustainable development principles A significant part of the proposed indicators, particularly on the quality of life (life expectancy, health, level of knowledge or trained skills, employment, degree of enforcement of rights), is reflected in the MDG assessment matrix run by the UN. However, there are the sustainable development policy components, which have not been covered by the MDGs assessment indicators, such as measures on greening the economy (reducing resource consumption, improving energy efficiency), measures to reduce the risk of natural and man-made disasters, the state of academic science, etc.

The following below is the information on the implementation of the principles of sustainable development in Russia over the past 20 years, according to the 2010 UNDP Report "Millennium Development Goals in Russia: Looking into the Future", UN Statistics Division and the Federal State Statistics Service (Rosstat), as well as the information and mate-

[2] Approved by the Decree of the President of the Russian Federation, No. 440, on April 1, 1996.

rials provided by the federal executive authorities of the Russian Federation and the various research centres. All of which illustrate the state of affairs and the results achieved in the three areas of sustainable development - social issues, the economy and the environment. The principles of sustainable development adopted in 1992 and the list of the MDGs, in force since 2008, are shown respectively in Appendices 1 and 2.

1.2. Progress in achievement of the Millennium Development Goals

Goal 1. Eradicate extreme poverty and hunger

The key national criterion of poverty in Russia is the share of the population with incomes below the subsistence level. Since 2001 there has been a steady downward trend in the share of poor people, specifically due to the effects of economic development. Between 2000 and 2007 this share reduced by half, and the income deficit fell to 1.2% of the total income of the population.

The specifics of poverty in Russia is that in addition to the traditional social poverty (large families, single-parent families with children and other vulnerable groups of the population), the economic poverty is common, when able-bodied citizens are not able to secure a socially acceptable standard of living. The people employed by the national economy sectors make up about 60% of the total poor population. A high share of able-bodied citizens among the poor is dependent, first of all, on the low-wages. Significant are the regional differences in poverty rates. Also significant is the regional differentiation by poverty level. Geographically, poverty is concentrated in small towns and rural areas, which account for 40% of the total poor population of Russia (2010 data), whereas the share of the rural population accounts for only 27% of the total population of the country.

The global financial and economic crisis affecting Russia in mid-2008 interrupted the process of growth of per capita income, and in December 2008 it decreased to 88.4% year-on year. In 2009, the economic environment and the anti-crisis measures of the RF Government allowed to contain the fall of incomes, despite the significant decline in industrial production and reduction of GDP. In December 2009, real per capita income of the population totaled 101.9% year-on-year. Economic growth and new measures of social support for the senior citizens and families with children contributed to a significant reduction in the number of the poorest.

As a result, the end of the first decade of the XXI century saw a successful elimination of types of poverty that were recognized as extreme in the Millennium Declaration (with incomes less than $1 a day). Extreme poverty measured by national standards also significantly reduced.

Proportion of Russian population below $1 (PPP) per day

1993	1996	1999	2001	2002	2005	2008
2.8	3.5	2.3	0.9	0.3	0.2	0.0

Source: United Nations. http://unstats.un.org.

The number of people with incomes below the subsistence level and the lack of monetary income

The number of people with incomes below the subsistence level *:	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
mln.people	49.3	46.1	32.9	36.5	32.5	30.5	34.3	41.6	42.3	40.0	35.6	29.3	25.2	25,2	21.5	18.7	18.8	18.2	17.9
percentage of total population	33.5	31.3	22.4	24.8	22.1	20.8	23.4	28.4	29.0	27.5	24.6	20.3	17.6	17.7	15.2	13.3	13.4	13.0	12.6
Lack of monetary income *:																			
billion rubles. (1995 – trillion. rub)	0.4	4.3	11.1	34.9	42.8	46.2	61.5	141.3	199.2	238.6	250.5	235.4	225.6	286.9	276.6	270.3	325.0	352.1	379.8
Percentage of the total monetary income of the population	6.2	5.4	3.1	3.9	3.2	2.8	3.5	4.9	5.0	4.5	3.7	2.6	2.1	2.1	1.6	1.3	1.3	1.2	1.2

** * For years 2003-2009 the figures have been calculated using the population numbers, excluding the results of the 2010 population census, in 2010- taking into account the results of the 2010 population census, obtained within the time-frame approved by the Resolution of the RF Government dated November 12, 2010 No. 896 "On the results of the 2010 population census". After obtaining estimates of population for years 2003-2010 taking into account the final results of the 2010 population census, the data will be recalculated and published in the official publications of Rosstat in 2012.*

Source: Rosstat, 2012 г. www.gks.ru.

Reducing poverty and gap between rich and poor is recognized as the foundation of a just social order and is one of the main priorities of current state policy of the Russian Federation.

Goal 2. Achieving universal primary education

The Constitution of the Russian Federation establishes the right of citizens to education: guaranteed access to free pre-school, general secondary and vocational education in the federal level and municipal educational institutions and at enterprises, as well as the right of everyone to a free higher education in federal or municipal educational institutions or at an enterprise, on a competitive basis[3].

If to view the achievement of Goal 2 literally (provision of universal primary education), it has already been achieved in Russia. By the level of education of the population and the

[3] Article 43 of the Constitution of the Russian Federation.

scale of its involvement in the educational process Russia occupies a leading position in the world. Suffice it to say that by its share of 47% of the educated population at the secondary vocational level and above, Russia % yields only to Canada (48%), and is far ahead of the rest of the world. By its share of population with tertiary qualifications Russia exceeds the average indicators of the OECD countries. Russia is also ahead of the OECD countries by the share of the population who successfully completed all levels. Gender equality regarding the access to education for Russia is not relevant, because the share of male and female students in educational activities at all levels, except the higher education level, is about the same, and by the share of graduates with tertiary qualifications female students outnumber male students by almost 50%. Therefore, the most important issue is the extent, to which the education system contributes to human development, reduces social inequality and improves the welfare of citizens. The focus now is being shifted from access-to-education indicators to the education quality and equality of access to the good quality education.

The priority national project "Education" launched in 2005 provides for accelerated modernization of the Russian system of education, which will result in attaining the leading-edge quality of education, in sync with changing demands of society and socio-economic conditions.

One of the priorities of the modern development of the education system is the access to education for children with disabilities. According to the Ministry of Education of Russia database[4], 97% of children with special needs are involved in education; the remaining 3% are not educable. For the future life of these children, social adjustment is as important as education. Regular classes in Russia are attended by 25% of children with health challenges, and another 28% are attending remedial classes in mainstream schools. The most effective tool of social adjustment for children with special needs is inclusive education, that is, learning together with ordinary children. The current Russian policy in the field of school education focuses on the development of inclusive education.

Box 1. How they are trying to avoid dividing children between "disabled" and "healthy" in Voronezh

In Voronezh, in 2011, a pilot project was implemented of developing inclusive education in four municipal mainstream schools. That means an ordinary school is attended by children with disabilities. This was done on purpose, so as not to isolate them from society and not divide children between the "sick" and "healthy". Thus they mature and develop faster. And the first experience has already indicated that this is quite possible. In Voronezh school No. 67 children with disabilities study together with everybody else. Currently there are 12 such students, but in the new school year there will be more. Similar inclusive projects were launched in schools Nos 97 and 30, nursery schools Nos 167, 133 and 33, in the Centre of supplementary education "Real School". They began to admit children with disabilities there without waiting for the establishment of special conditions, for example within the framework of "Accessible Environment". However, the teachers point out some problems such as the gaps in the legal framework, lack of training standards for children with special needs in a regular school, the need for additional equipment and remodeling of school space. For

[4] An interview with the Minister of Education and Science Andrei Fursenko, "Novaya Gazeta", September 10, 2009.

mass introduction of "inclusive" education in school it is necessary to ensure appropriate funding, and it will be useful to involve pre-school institutions into the programme.

Source: "Rossiyskaya Gazeta", 22.02.2012, www.rg.ru.

By the share of the population with higher education and additional vocational education (22.8% of the population aged from 25 to 64 years) Russia is at the level of foreign countries like the UK, Sweden and Japan, and ahead of Germany, Italy and France. Among the citizens of Russia at the age of 25-35 years the share of possessing tertiary qualifications is 57%. This level is recorded in three more countries - Japan, South Korea and Canada.

However, the experts recognize the problem of oversupply of specialists with higher education in the labour market, particularly in the arts, and the shortage of specialists with technical background, i.e. system of higher education is not adequately tied into labour market needs. The situation when the number of people with higher education rapidly grows co-exists with the situation when the number of graduates from secondary (general or vocational) educational institutions drops. As a result, the people with a lower level of education are forced out from the labour market and the vacancies are filled with those who are overqualified. During the period of market transformation the system of vocational education suffered major losses. From 1990 to 2010 the number of vocational schools has decreased by 45.6%, while the number of students in them (including employer-sponsored contracts) decreased by 46.1%. The lack of conformity of the education system and the structure of the labour market leads to increased levels of unemployment among young people. Therefore, one of the objectives of the state policy in the field of vocational education is to train skilled workers and raise the public profile of the working profession in general.

Goal 3. Promoting gender equality and empowerment of women

The key legal mechanisms of improving the status of women in Russia are embedded in: the Russian Constitution[5], according to which men and women have equal rights and freedoms and equal opportunities to realize them; the UN Convention on the Elimination of All Forms of Discrimination against Women; the Convention and Recommendations of ILO, ratified by the Russian Federation; a series of laws of the Russian Federation, decrees of the President of the Russian Federation, and resolutions of the Government of the Russian Federation.

An important feature of the gender situation in Russia is the fact that gender issues are pressing not only for women but also for the male population. Among the most acute "male" gender issues are low life expectancy, declining level of education (relative to women), high levels of employment in unfavourable conditions. Moreover, it can be argued that gender asymmetries today permeate virtually all vital functions of the Russian society (in some areas, this asymmetry has obvious "female", in others - "male" perspective). For example, higher professional education was and still is highly feminized. The share of males among university students is 42.2% (2008).

In Russia, the gender gap in life expectancy at birth is still one of the most significant in the world (12.3 years). This is due to the higher mortality of men compared with women in all age groups, but especially in the age of 20-55 years. Over the past few years, this gap

[5] Article 19 of the Constitution of the Russian Federation.

was reduced. Reduction in mortality (especially from causes related to alcohol use, traffic accidents, etc.) has been the subject of special attention from the government.

In the legislative branch, gender issues lie within the competence of the Committee for Social Policy and Public Health of the Federation Council (which examines the issues of improving the status of women and gender equality through the prism of the state support of family, motherhood, fatherhood and childhood) and the Committee on Family, Women and Children of the State Duma of Federal Assembly of the Russian Federation.

Given that, the Russian Federation continues to demonstrate the low share of women seated in all branches of government. In recent years, however, the situation began to change: in the period from 2008 to 2011 three women have been appointed the federal ministers (out of 18 federal ministers), five became the heads of federal executive bodies (of 54 managers), more than 10% of women worked in the positions of deputy ministers and heads of federal executive bodies. Two RF constituents (out of 83) in 2011 were headed by women, one of them – V.I. Matvienko - in September 2011 was elected Chairman of the Federation Council of the Federal Assembly of the Russian Federation. Also growing is the share of the female deputies of the State Duma.

Proportion of seats held by women in national parliament, %

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
10.2	10.2	10.2	7.7	7.7	7.6	9.8	9.8	9.8	9.8	14.0	14.0	14.0	14.0	14.0

Source: Rosstat, 2012 www.gks.ru.

Goals 4 and 5. Reducing child mortality and improving maternal health

Today, Russia has reached the level of birth rate at 1.5 children per woman, which is typical for developed countries with the high levels of education. The government policy aimed at increasing this indicator includes: building more kindergartens; providing employment guarantees for women who are on maternity leave; various benefits including a multiple-child allowance. These measures are directed towards creating incentives for having more than one child.

Russia maintains a relatively high level of vaccination of children against the most traditional vaccine-preventable diseases such as diphtheria, rubella, tetanus, pertussis, measles and polio. The proportion of children vaccinated against these infections in Russia is stable at the level of 97-98%, which is higher than, for example, the average for the European Union.

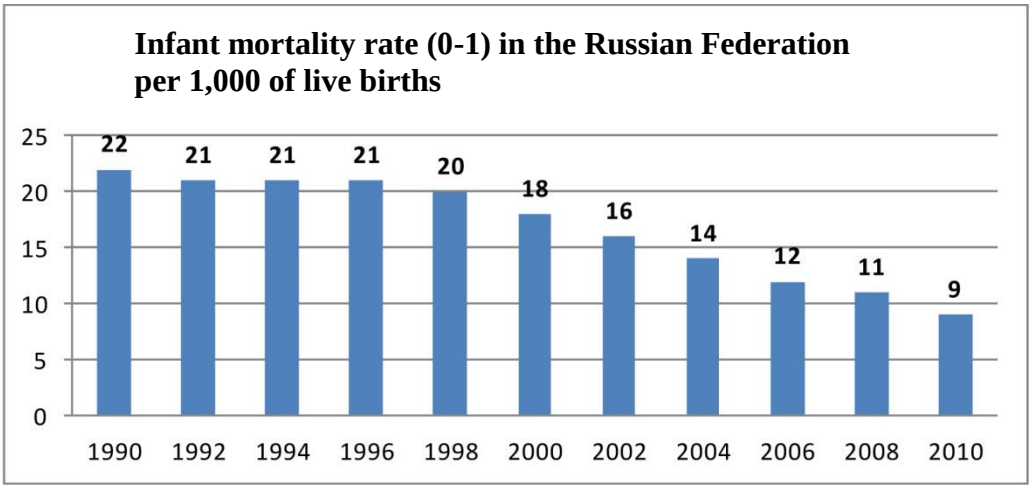
Key outputs of implementing the first phase of the Concept of Demographic Policy in Russia until 2025

Indicators	2006	2007	2008	2009	2010
Population as of January 1 (in thousands)	142 753.5	142 221	142 088.8	141 904	141 914.5
Change over the year (in thousands)	-532.5	-212.2	-104.8	+10.5	
Number of births (in thousands)	1,480	1,610,0	1,714	1,764	1,789.6
Total birth rate	1,30	1,41	1,49	1,54	1,59

Number of deaths (in thousands)	2,167	2,080	2,076	2,011	2,031
Natural increase (decline) in population (in thousands)	-687	-470	-362	-249	-241
Life expectancy at birth	66.6	67.51	67.88	68.87	68.98

Source: Annual Report of the Ministry of Health and Social Development of the Russian Federation, 2010.

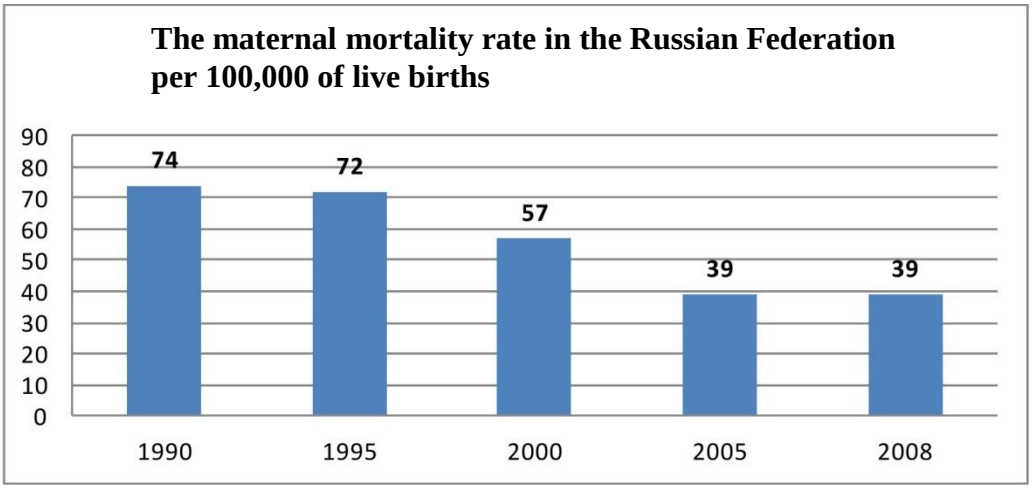
Russia demonstrates reduction of the infant and maternal mortality. The infant mortality rate in 1990 was 22 per 1,000 births, while in 2010 – it was 9 per 1,000 births. Perinatal mortality rate in Russia is a large part of the mortality of children under five years of age.



Source: United Nations. http://unstats.un.org, as of 29.08.2011.

The maternal mortality rate in 1990 was 74 per 100, 000 live births, and in 2008 - 39 per 100, 000 live births.

In 1980, almost half, and in 2000 a quarter of all maternal deaths were related to abortions. Since 1991, the number of abortions in Russia fell by almost a factor of 3, and since 2007 the number of births exceeded the number of abortions.



Source: United Nations. http://unstats.un.org, as of 07.07.2011 .

The positive results in the achievement of MDGs 4 and 5 have been achieved, including through a substantial increase of investments in health care, family support, motherhood and childhood. So, for the past 12 years, federal spending on health care has increased by a factor of 30 - up to 0.5 trillion rubles in 2011.

Goal 6. Combating HIV / AIDS, malaria and other diseases

After the collapse of the Soviet Union Russia witnessed a rapid spread of sexually transmitted infections, and the trend for steady decline in tuberculosis was reversed. Today, the problem of HIV / AIDS for the Russian Federation is as acute as for other countries of the world. In 2010, Russia registered more than 500,000 people living with HIV / AIDS. The epidemic failed to be reversed, and the incidence of HIV infection in the country is growing. Of particular concern is the fact that the majority of HIV-infected Russians are young people of working age.

The prevalence of HIV *

Indicator	2005	2009	2010
Persons registered as HIV antibody carriers identified by immune blotting:			
Total registered	328,204	469,412	503,724
per 100, 000 of population **	231.2	330.8	352.4

* *The data by the Health Ministry of Russia.*

** In 2005, 2009. The figures have been calculated using the population numbers, excluding the results of the National Population Census (URL) in 2010; in 2010 - taking into account the preliminary results of the 2010 population census.

Source: Statistical Bulletin "Healthcare in Russia." Rosstat, 2011.

The Russian national legislation guarantees all citizens access to the large-scale prevention programme and free voluntary HIV testing, and free health care and social protection for HIV-positive patients.

Box 2. Moscow City Centre for Prevention and Control of AIDS

Moscow AIDS Prevention Centre at the Health Department of the City of Moscow (MCC AIDS) provides all kinds of specialist medical care for HIV-infected and AIDS patients. Patients and their families also have the opportunity to receive a consultative and methodological and psychological support.

Regular examinations allow prescribing a specific highly active antiretroviral therapy. To date, the majority of HIV-infected people who are subject to the regular medical check-up system and who do it regularly continue to lead an active lifestyle, while continuing their studies and work. If there are indications, the patients hospitalized to the in-patient clinic of the MCC AIDS, where they receive adequate treatment in line with international standards.

An important achievement of the Centre is the implementation of the programme aimed at reducing the risk of transmission of infection from HIV-infected mother to her child dur-

ing pregnancy and childbirth in hospitals of Moscow. Thanks to the use of modern specialist prevention programme the probability of birth of HIV-infected child has now dropped more than by a factor of six and does not exceed 3%.

The MCC AIDS opened AIDS hot line, which receives more than 50 calls a day, not only from Moscow but also from other Russian regions. The Centre also runs the its web site www.spid.ru. On the basis of its own clinical base the MCC AIDS conducts clinical and epidemiological studies, its staff delivering lectures and conducting training workshops in other medical institutions of Moscow.

Source: MCC AIDS http://www.spid.ru.

The Russian Federation pays special attention to the programme envisaging prevention of transmission of infections from mother to child. In 2010 such programme covered more that 93% of pregnant women with HIV, a 35% increase over 5 years. This has led to a reduction in neonatal infection rates by more than a factor of 2 and birth of more than 50,000 healthy infants from HIV-infected women.

A lot of challenges are still there, such as a low level of public awareness of HIV and its key prevention methods, as well as the discrimination experienced by patients from the community members.

In 1985, Russia was placing 20th in terms of the incidence of *tuberculosis* among all countries in the European region, and 6th - among all countries of the world. In the 1990s, the registered disease rate index rose in nearly all of the former republics of the Soviet Union nearly by a factor of 2-2.5[6]. In the Russian Federation, the peak incidence of tuberculosis occurred in 2000, totaling nearly 90 per 100 000 population.

Active TB morbidity *

Indicator	1995	2000	2005	2009	2010
Active TB notified incidence rate, new cases:					
total, in thousands	85.0	130.7	119.2	117.2	109.9
per 100, 000 population	57.8	89.8	84.0	82.6	76.9
The number of active TB patients, registered with the health care facilities (year end):					
Total patients, in thousands	280.8	379.9	298.5	262.7	253.6
per 100, 000 population	191.0	261.5	210.8	185.1	177.4

* *For 2005 and 2009 rates per 100, 000 population were calculated using the population, excluding the results of the 2010 population census, in 2010 - taking into account the preliminary results of the 2010 population census.*

Source: Statistical Bulletin "Healthcare in Russia." Rosstat, 2011

6 Russian Health Ministry data. www.minzdravsoc.ru.

After the new TB incidence peak observed in 2000 (89.8 active TB patients, new cases, per 100, 000 population), the incidence of tuberculosis began to decline since 2005.

In recent years the total number of cases of *malaria* in the country did not exceed several hundreds per year. Therefore, malaria is not one of the key problems of public health in Russia.

Goal 7. Ensure environmental sustainability

The main challenges of environmental sustainability in the Russian Federation are: environmental pollution, loss of biodiversity, climate change, and the "legacy of the past" - the accumulated environmental damage, which will have to be remedied by the current generation. Russia has 136 cities with high levels of contamination with a total population of 56.3 million people (55% of the urban population), including 30 cities with very high levels of pollution. Every second citizen of the Russian Federation has to use water for drinking that does not meet a number of statutory parameters, almost a third of the population having to use water supplies without adequate water treatment.

In whole of Russia the availability of water resources is 30.2 thousand cubic meters per person per year, which is well above the critical UN-prescribed minimum required to meet the needs of the population – 1,700 cubic meters. However, the territory of the Russian Federation is marked by a significantly unequal distribution of water resources. The developed regions of the European part of Russia, which concentrates more than 70% of the population and productive capacity of the country, account for not more than 10% of water resources. Some 75% of Russia's total population enjoys the centralized water supply. By the level of public access to centralized water supply the Russian Federation is behind the developed countries, where the figure is 90-95%, or higher. The issues of improving the quality of drinking water and the reduction of scarcity of fresh water will be resolved within the framework of the Federal Target Programme "Development of water industry of the Russian Federation in 2012-2020."[7].

The Russian Federation possesses the most extensive woodland in the world. The total area of woodland is 1,183.3 million hectares, or one fifth of the world's forests. Percentage of areas with forest cover is also one of the highest in the world - about 47%. Russia accounts for 70% of the boreal (taiga) forests, and the quarter of the virgin forests in the world. Russian forests perform important protective, water conservation and climate-regulating functions, play a key role in preserving biodiversity and maintaining other biosphere functions of the planet. Over the recent twenty years, the forest area remained virtually unchanged, and the amount of accumulated carbon in the forest biomass remains fairly stable, somewhat increasing over the past decade.

The woodland area in the Russian Federation

Area (1,000 Hectares)			Change over years (1,000 Hectares)	
1990	2000	2010	1990–2000	2000–2010
808,950	809,269	809,090	+32	-18

[7] The concept of the Federal Targeted Programme "Development of water industry of the Russian Federation in 2012-2020" approved by the resolution of the RF Government No 1316-r dated July 28, 2011.

Source: Report of the "State of the World's Forests 2011". FAO, 2011.

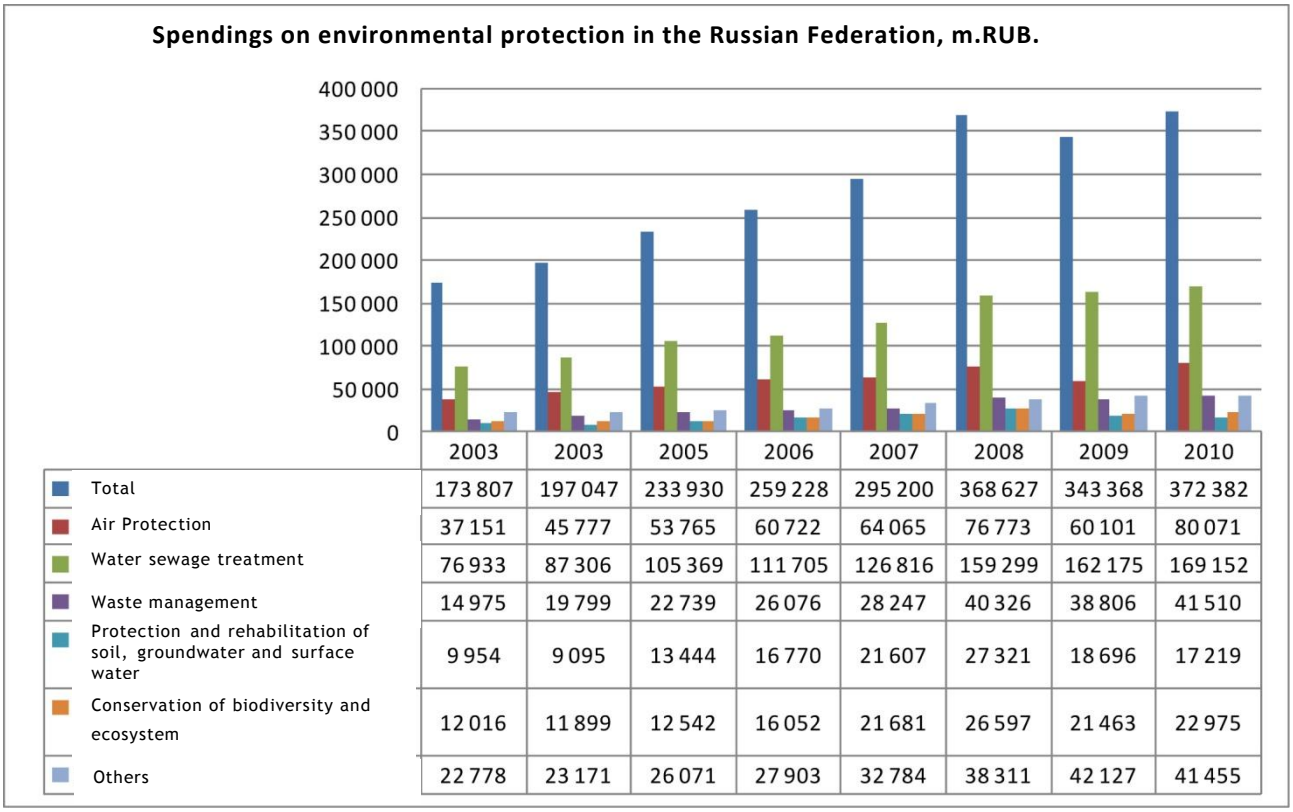
The forests of the Russian Federation are predominantly owned by the federal government, which fact is conducive to enforcing a uniform and effective policy on their use, protection and regeneration.

The forests are used to meet the needs of society in various forest resources taking into account their designated use. It is based on the principles of multi-purpose, continuous and sustainable forest management. The key form of forest use is leasing forests plots, which covers about 17% of forests, by area.

The forest fires are among the most powerful factors causing damage to forests. The Russian Federation has created a single system of forest fire protection on the basis of regional specialized fire emergency alarm and specialized forest fire agencies, management of interregional rapid deployment forces and fire fighting equipment. Reducing the negative effects of unfavourable factors and conservation of forest area is also achieved by their balanced regeneration, based on the use of their natural potential for reforestation, the use of planting material with better reproductive properties, and the introduction of advanced environmentally sound technologies.

The Russian Federation is the country with one of world's largest area of protected territories - 215 federal territories and more than 11, 000 regional and local ones with total area of 200 million hectares, accounting for 11.5% of the whole country’s area (official statistical estimates of provided regional measures for protecting biodiversity often quote data only on lands with the federal status). Nationwide, there are 102 reserves, 42 national parks, 71 wildlife federal status sanctuaries with total area of 56.3 million hectares, including land territory with the internal bodies of water - 46.1 million hectares, or 2.7% of the total area of Russia.

In 2010 public spending on the environment protection activities amounted to 372,382 million rubles. (173, 807 million rubles in 2003).



	2003	2003	2005	2006	2007	2008	2009	2010
Total	173 807	197 047	233 930	259 228	295 200	368 627	343 368	372 382
Air Protection	37 151	45 777	53 765	60 722	64 065	76 773	60 101	80 071
Water sewage treatment	76 933	87 306	105 369	111 705	126 816	159 299	162 175	169 152
Waste management	14 975	19 799	22 739	26 076	28 247	40 326	38 806	41 510
Protection and rehabilitation of soil, groundwater and surface water	9 954	9 095	13 444	16 770	21 607	27 321	18 696	17 219
Conservation of biodiversity and ecosystem	12 016	11 899	12 542	16 052	21 681	26 597	21 463	22 975
Others	22 778	23 171	26 071	27 903	32 784	38 311	42 127	41 455

Source: State Statistics Service. "Environmental Protection in Russia – 2010».

In 2014, the Russian Federation will host the XXII Olympic Winter Games and XI Paralympic Winter Games. From the early stages of the concept design of the games it was decided to hold the games "in harmony with nature", demonstrating high standards of environmental conservation, biodiversity, resource saving, and waste recycling. The country also undertook commitments to implement "green" building standards. Monitoring the compliance with environmental obligations on part of Russia is annually ensured by Russian and international independent organizations.

As of today, the environmental component is included in the concept of all the large-scale infrastructure projects in Russia.

Box 3. "Green" Olympics - Sochi - 2014

In order to ensure environmental safety (minimize the potential negative impact on the environment) and compliance with the environmental legislation of the Russian Federation in the period of preparation and holding of the XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in Sochi (hereinafter - the Olympic Games), Russia undertook advanced environmental commitments including implementation of "green" building standards.

The process of preparation for the Olympics involved implementing four "green" building standards, which differ in status and manner of application:

- Additional environmental requirements and recommendations for State Corporation "Olympstroy";

– Corporate "green" standard of the State Corporation "Olympstroy";

– International standard BREEAM;

– The system of voluntary certification of real estate - "Green Standards".

In order to fulfill the obligations of the Bid Book to achieve zero carbon balance - "Reducing emissions of CO2 and other pollutants into the atmosphere" – the Olympic Construction Programme includes a number of measures that will reduce the man-induced impact on the environment, including reducing emissions of pollutants into the atmosphere using energy-saving technologies and renewable energy sources.

An important aspect of the implementation of environmental requirements during the construction of Olympic venues is to preserve wildlife. In 2010, large-scale events were held on catching and relocation of more than 450 animals in the areas allocated for Olympic construction. Animals were transferred from the boundary in the Imeret lowland area to the planned ornithological park, called Lebyazhie Lakes. Despite the fact that the most part of the caught species are not subject to special protection, all the animals, including such species as the grass snake, lake frog, as well as numerous species of fish, have been moved to a similar habitat - the waters of one of the Lebyazhiy Lakes. On the territory of the ornithological park all economic activities have been completely ruled out and favourable conditions for animal life provided.

Source: www.sochi2014.com.

Russia ranks fourth in the list of ten countries that are major sources of greenhouse gas emissions that affect climate change, after China, the US and India[8]. From 1990 to 1998 the Russian Federation was gradually reducing greenhouse gases regulated by the UN Framework Convention on Climate Change (UNFCCC), affecting all sectors of the economy, primarily as a result of a deep economic crisis. In addition, Russia adopted a number of federal targeted programmes (FTP) aimed at reducing greenhouse gas emissions in the relevant sectors of the economy, including:

- "Comprehensive use and reproduction of the wood resources" - up to 1995;
- "Resource-saving and environmentally friendly processes in the mining and steel sectors" - until 1996;
- "Technologies, machinery and manufacturing in the Future" - until 1996;
- "Waste" programme was approved by the RF Government on September 13, 1996, envisages significant measures to reduce methane emissions resulting from recycling solid and liquid waste in the residential sector, agriculture, and manufacturing industries;
- "National Technological Base" - until 1996 - it included sub-programme 14 "Technology of providing sustainable and eco-friendly living environment";
- "Forests of Russia" programme for 1997-2000 integrated environmental, forestry and socio-economic aspects;
- "Clean Energy" - up to 2000;
- "Eco-friendly processes of chemistry and chemical technology" - up to 2000;
- "Innovative technologies for integrated development of energy resources of Russia" - until 2000.

During years 1999-2008 there was a rapid increase in industrial production (in some years - more than 20%). By the end of this period, the largest year-on-year increase in output was

[8] Estimates for the year 2009, the International Energy Agency, 2011, www.iea.org.

achieved in the fuel, chemical, petrochemical and food industries, ferrous and non-ferrous metals, building materials, machinery and metalworking.

According to the programmes of socio-economic development of the Russian Federation in the medium term for 2002-2004 (adopted in 2001), 2003-2005 (adopted in 2003), 2006-2008 (adopted in 2006), the planned GDP growth rate of 4.5% averaged per year over the 7-year period implied an increase in the consumption of primary energy resources by a total of 14.6%. At the same time, gas production would go up by 11%, oil by 10% and solid fuels by 34%. Electricity production was to increase by 20-24%. Under these circumstances, Russia had to speed up implementing (within the FTPs) the strategies that incentivize reduction emissions of greenhouse gases. Such strategies should influence the activities of the Government of the Russian Federation, the Administration Offices of the Russian Federation regions and business entities. They were supposed to promote reducing emissions of greenhouse gases in Russia and help attract investments in the country to implement "climatic" projects. To do this, the following Programmes have been developed and implemented at the end of 1990 - early 2000:

1. “Energy of Russia” (1998-2005) was adopted in 1998, and included the sub-programmes:

- “Energy efficiency in the energy sector“;
- “Energy efficiency in housing and communal services sector “;
- “Energy efficiency in energy-intensive sectors“;
- “Energy-saving appliances and equipment“;
- “Utilities consumption metering and control devices”.

The main purpose of this programme is to accelerate the transfer of the Russian economy onto the energy-saving track of development. As a result of the implementation of the planned measures energy consumption relative to GDP should decline by 1.6% per year.

2. "High-speed environmentally clean vehicles" (until 2005).

3. "Safety of population and economic facilities taking into account the risk of natural and man-made disasters" (until 2005).

At the turn of the XXI century, it was decided to continue implementing the existing and adopting the new federal programmes:

- “Energy Efficient Economy for 2002-2005 and for the period up to 2010” including sub-Programme “Energy Efficiency of the Fuel and Energy Sector”;
- “Ecology and natural resources of Russia” (in 2002-2010);
- “National Technological Base” (2002-2006);
- “Modernization of transport system of Russia (2002-2010)”;
- As part of the federal programme “Housing” (2002-2010) Sub-programme "Reforming of Housing and Communal Services" – regarding pricing policies for electricity, natural gas, and fuels;
- “Improving soil fertility in Russia” (2002-2005);
- The conservation and restoration of soil fertility of agricultural lands and agricultural landscapes as a national resource of Russia" (2006-2010).

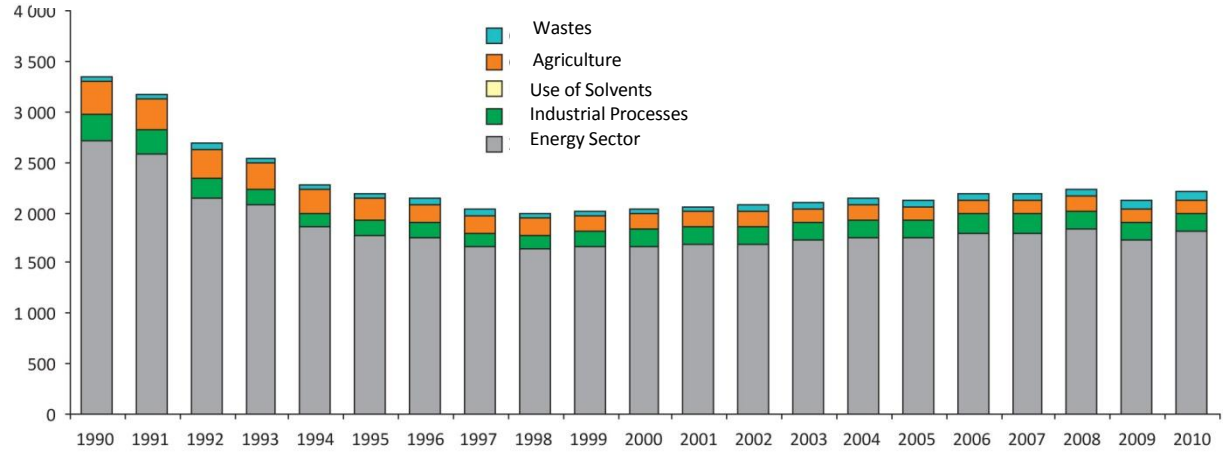
In addition, a series of relevant activities were envisaged in the programme of development of some sectors of the economy, the Federal Targeted Programmes of socio-economic development of Russian regions and programmes for socio-economic development of the RF constituents.

Significant reductions of emissions have been ensured by implementing programmes and measures for reforming and restructuring of the Russian economy, eliminating price distortions, switching to new fuels and implementing advanced energy saving technologies. For example, during the period of 2002-2005 alone, the savings of primary energy resources amounted to 116 million tons of equivalent fuel in all the sectors of the Russian economy. According to expert estimates, as a result of these activities in the field of power consumption the value of prevented CO2 emissions in Russia in 2002-2005 amounted to an average of 50-60 million tons of CO2 per year, or about 3.5% of the average annual emissions of CO2 in the territory of Russia in those years[9].

In the first decade of the XXI century, economic growth was accompanied with increasing emissions of greenhouse gases, but the rate of growth of emissions was relatively low, which was due to a general increase in energy efficiency of the economy through the implementation of programme activities and structural changes occurring at that period, in particular the increase in the share of non-manufacturing sector in the economy of the Russian Federation[10].

The total national emissions of CO2-equivalent in 2010 amounted to 65.7% of the 1990 level. Thus, the obligations of Russia for the first period of the Kyoto Protocol (2008-2012) of non-exceedance of the level of man-made greenhouse gases emissions in 1990 were complied with.

Man-made emissions of greenhouse gases in the Russian Federation, excluding land use, land use change and forestry in 1990-2010, mln. tons of CO2 equivalent



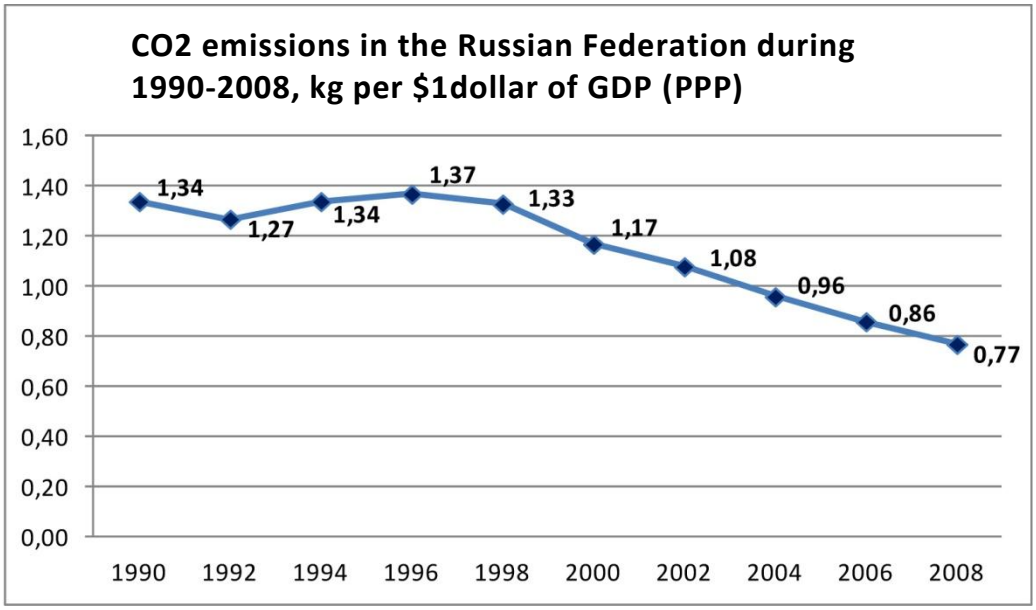
Source: National Greenhouse Gas Inventory of sources of emission and absorption of greenhouse gases not controlled by the Montreal Protocol for 1990-2010., Roshydromet, 2012.

It should be noted that the growth rate of GDP in Russia at the beginning of XXI century was much higher than the growth rate of greenhouse gas emissions and carbon intensity of GDP declined steadily since 1999. The transition to a market economy, with resulting structural changes due to the demilitarization of the economy and the withdrawal of inefficient industries, an increased share of natural gas in the energy mix, and the implementation of

[9] Fourth National Communication of the Russian Federation submitted in accordance with the Framework Convention of the United Nations on Climate Change and the Kyoto Protocol of 2006.

[10] National Greenhouse Gas Inventory of sources of emission and absorption of greenhouse gases not controlled by the Montreal Protocol for 1990-2009., RosHydromet, 2011.

specific measures to reduce emissions in the economy sectors, allowed Russia to become the world leader in terms of reducing greenhouse gas emissions.



Source: United Nations. http://unstats.un.org, as of 07.07.2011.

According to experts,[11] in 1991-2009 the total reduction of greenhouse gas emissions in Russia:

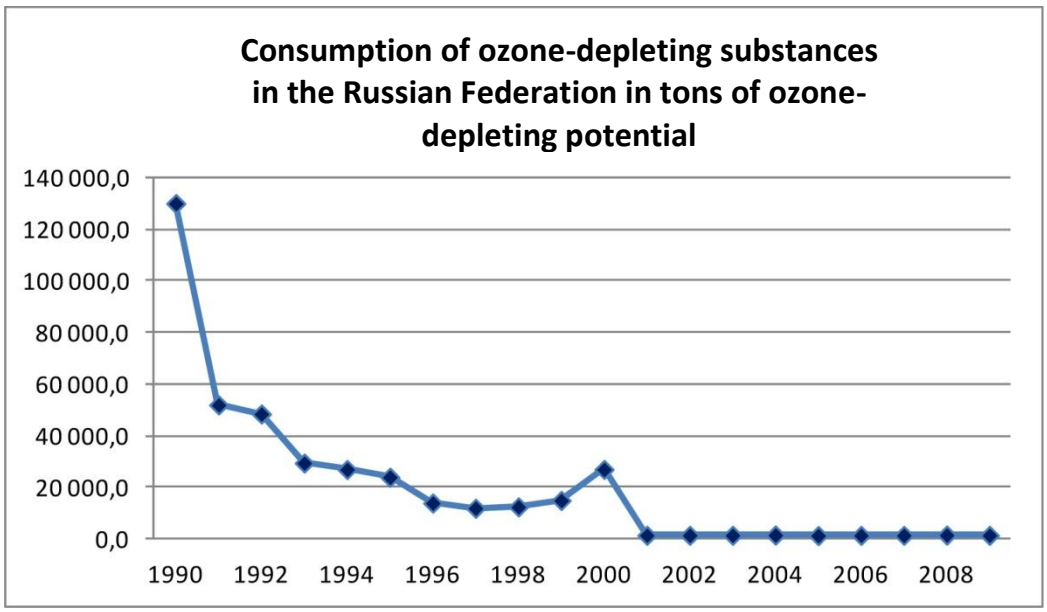
taking into account forestry and land use was 56%, or in absolute terms, cumulatively over the years, amounted to 33.8 billion tons of CO2-equivalent which exceeds the annual CO2 emissions from the global energy industry - 30.4 billion tons of CO2- equivalent in 2010 and is equal to 78% of the emissions of all greenhouse gas emissions generated by the global energy sector;

without taking into account of forestry and land use was 35%, or in absolute terms, cumulatively over the years, 20 billion tons of CO2-eq., which is equal to almost half of all greenhouse gas emissions generated by the energy sector of the world, or double the annual CO2 emissions of the largest economies, or 5 times the annual CO2 emissions of European economies, OECD members, and more than offset the cumulative increase of greenhouse gases in the United States in 1990-2009.

In the period of 1990-2009 the Russian Federation has achieved a significant reduction in the consumption[12] of ozone-depleting substances.

[11] Centre for Energy Efficiency, 2011, www.cenef.ru.

[12] According to Article 1 of the Montreal Protocol "consumption" means "production plus imports less exports of controlled substances".



Source: UN data. http://unstats.un.org.

The Russian Federation is a party to most international treaties on environment and climate, including - the Vienna Convention for the Protection of the Ozone Layer (since 1986), the Montreal Protocol on Substances that Deplete the Ozone Layer, the UN Framework Convention on Climate Change (since 1994), Kyoto Protocol to the UNFCCC (since 2004), the UN Convention to Combat Desertification (since 1994), the Convention on Biological Diversity (since 1995), the Stockholm Convention on Persistent Organic Pollutants (since 2011), etc.

One of the priority issues of the current Russian environmental policy is the elimination of accumulated environmental damage. The country, as a whole, has accumulated a significant amount of hazardous waste, the majority of which is contained in the industrial wastes. Practical efforts to eliminate past environmental damage were commenced in 2011 in the Arctic.

Box 4. "Spring cleaning" of the Arctic

In the 1990s, there were a lot of businesses located in the far north, in the Arctic zone, which were shut down and were not properly mothballed. The equipment and materials for most part were abandoned. On the territory of the Arctic islands there were thousands of tons of abandoned petroleum products and lubricants in barrels and tanks, equipment and technology, the remains of buildings and domestic facilities, and household and construction waste. The Government of the Russian Federation decided to start a campaign for "spring cleaning" of the Arctic. In 2011 the first project was commenced - cleaning of Franz Josef Land of accumulated barrels with petroleum products. For this purpose 2.3 billion rubles were allocated from the federal budget up to 2015. Similar efforts are planned to be taken on the Wrangel Island, and the Russian settlements on Spitzbergen (Svalbard). In addition, seven major regions of the Arctic zone will undergo the comprehensive assessment of their environmental status.

Source: Website of the Government of the Russian Federation www.government.ru.

Goal 8. Developing a global partnership for development

The Concept of Russia's Participation in International Development Assistance [13] (IDA) adopted in 2007 has provided the basis of the comprehensive approach of Russia's participation in the IDA. Russia considers the sustainable socio-economic development of all countries of the world as an essential element of a modern system of collective security, trying to find the most effective ways to support international efforts to eliminate imbalances in the development of various countries and regions. This involves the payment of contributions to international organizations engaged in implementation of Development Programmes as well as participation in funding the global foundations, specific international initiatives that are undertaken in the framework of the G8, World Bank, IMF, and UN-based organizations.

During 2005-2006, 2002-2003 the annual expenditures of the Russian Federation allocated for funding international programmes and multilateral IDA initiatives (excluding writing-off debts of the poorest countries) increased two-fold - from $ 50 million to nearly $100 million USD. In the two years that followed, the amount of these expenditures doubled again and reached $ 220 million in 2008. The amount of the federal budget allocations provided by Russia in 2009 to developing countries on a bilateral and multilateral basis (as ODA) already amounted to more than $785 million USD.

As a long term goal, Russia adopted the UN recommended level of such expenditures of 0.7% of GNP. To date, Russia has written off or committed itself to write-off debts of African countries alone worth of about $20 billion dollars. According to the Ministry of Finance of Russia, in 2007-2008, the multilateral aid amounted to about 80% of Russia's development assistance bill. Given that, the important trend was the reduction in the share of contributions to international organizations and the simultaneous growth of Russia's participation in funding various international programmes and multilateral IDA initiatives. As of year 2009, the ratio of bilateral and multilateral assistance has changed, making 60 and 40%, respectively. Russia aims to enhance the capacity of providing two-way IDA. Achieving this goal requires the proper management of the channels of aids distribution to the recipients and adopting the regulatory framework.

As part of its international commitments made at the G8 Summit, Russia is actively promoting the consolidation of international efforts in combating HIV and providing access to treatment. Since 2006, the Russian Federation is a donor to the Global Fund to Fight AIDS, tuberculosis and malaria, constantly increasing the volume of its donor aid. During this period, contributions of Russia to the Fund of Russia reached $ 317 million US dollars.

A traditional area of IDA for Russia is education. Currently, the Russian Federation hosts more than 120,000 foreign nationals both on commercial basis and at the expense of the federal budget. Foreign students get trained in more than 650 institutions of higher learning in our country. For the most part the students are from CIS countries (over 70,000), the countries of Asia, Africa and Latin America. In 2008, the Government of the Russian Federation has increased the annual quota for the training of foreign citizens and countrymen living abroad in the Russian secondary and higher vocational institutions from 7,000 to 10,000 people.

MDGs achievement progress in Russia can be described as heterogeneous. On the one hand, there is a clear progress related to poverty reduction, access to education, reducing child and maternal mortality, HIV / AIDS prevention, as well as strengthening of Rus-

[13] Approved by the President of the Russian Federation, June, 14 2007.

sia's role as an international donor. Worth of note is a substantial increase in public funding of measures to help achieve the MDGs.

On the other hand, having stated the changes in addressing environmental challenges, one needs to point out a whole series of tasks that require further efforts to address them. This primarily includes the solution of problems of air pollution, water resources, ecosystem degradation, waste management and repairing accumulated environmental damage.

Still pressing are the issues of gender equality in decision-making bodies of the government, as well as the quality of educational system and the need to tailor the educational system to the needs of developing Russian economy and, hence, the labour market.

The regular assessment of MDGs achievement progress enables evaluating strengths and challenges in the implementation of the set objectives and designing the most effective ways to achieve them. The presence of objective statistical data is an important prerequisite to ensure progress in achieving the MDGs. Some of the indicators are not statistically monitored, the monitoring being replaced with estimates by international organizations, which increases the level of uncertainty of the progress assessment. In this regard, the issues of improving the system of collection of statistics to assess progress on the MDGs remain on the agenda.

1.3. Evaluation of policies and measures of the Russian Federation aimed at reducing of resource intensity and improving energy efficiency of the economy at the turn of XX-XXI centuries.

The transition to innovative energy-efficient ways to achieve sustainable development in Russia began with building a new economy. Following the adoption in 1996 of the Federal Law "On Energy Saving"[14] the RF Government intensified activities in the field of energy efficiency.

Since the end of the last century Russia improved its financial and economic capacity and developed incentives for industrial use of environmentally friendly technologies and programmes of resource and energy saving. To implement environmental programmes a public-private partnership was established along with raising public awareness of the environmental policy.

The positive examples of the sectoral inputs at the federal level are:

- adoption of 43 regional laws and 362 regulations on energy saving in the fuel and energy sector. Upon the initiative of the Ministry of Energy of Russia some 47 regions of the Russian Federation adopted the regional energy efficiency programmes; the federal authorities approved sectoral 26 industrial energy efficiency programmes; 25 energy savings funds were established, 62 centres of energy saving were operational already by the end of 2001;
- the Gosstroy (Russian State Construction Committee) activities involved in the process of adoption of amendments to SNiP (Constructions Norms and Regulations) "Thermal Engineering" and the adoption of the new SNIP "Thermal protection of buildings"in 2003;

[14] Federal Law No.35-FZ dated April 3, 1996 “On Energy Conservation”.

- implementation of the programme “Energy Conservation” for the Ministry of Education of Russia" in 1999-2005.

Worth of noting is the contribution of: the Federal Programme "Energy Conservation in Russia" (1998-2005) aimed at improving energy efficiency in the energy sector, communal utilities and other industries; the Federal Programme "Waste" that aims to reduce methane emissions resulting from recycling of solid and liquid waste in housing, agricultural, and manufacturing sectors. During 2002-2005 alone owing to the implementation of energy saving measures under the Federal Programme "Energy Efficient Economy" the savings of fuel and energy resources were achieved totaling 116 million tons of fuel equivalent, of which the fuel and energy sector accounted for 59%, manufacturing sector - 28%, housing utilities - 16%, transport - 9%, and agriculture - 1%

Between 2000 and 2003, power generation from renewable energy sources increased by 27.3% (from 4.3 to 5.4 billion kW • h). Wind power generation has increased over this period by the factor 4.2, geothermal stations by the factor 5.3, and hydropower by 8.6%.

According to the Ministry of Agriculture of Russia, the agricultural sector of the Russian Federation carried out measures to improve energy efficiency and energy savings, which reduced the specific consumption of diesel fuel during 2001-2004 in the crop farming by 12% (from 65 to 58 kg/ha), and in grain growing by 12.5% (from 72 to 64 kg/ha). Reduction in specific consumption of diesel fuel has been achieved by introducing resource-saving technologies on the area of more than 15 million hectares, applying new high-performance equipment, and achieving fuel economy by optimizing its fiscal metering and use. Power consumption for watering crops was reduced during 2002-2005 by 26% (from 788 to 628 million kW • h) through the use of low-pressure sprinklers and new generation pumping units.

Positive results were obtained through the use of corporate strategies to reduce the impact on the environment. For example, to ensure the practical implementation of the Energy Saving Concept in OAO "Gazprom" during 2001-2010, three energy efficiency programmes were consecutively adopted and launched during 2002-2003, 2004-2006 and 2007-2010, respectively. The total energy savings exceeded the planned concept and programme performance targets by 57% and amounted to 29.8 million tons of coal equivalent, including natural gas for own needs - 25.1 billion m3, almost 3 billion kW • h of electricity and 1.9 million Gcal of heat, which prevented the emission of pollutants into the atmosphere in the amount of than 2 million tons. Respectively, the savings of 5.8 million tons of fuel equivalent were demonstrated during 2002-2003, with 12.3 million tons of fuel equivalent saved in 2004-2006, and 11.7 million tons of fuel equivalent in 2007-2010 (according to OAO "Gazprom"). The energy-saving measures implemented in OAO "Gazprom" during 2002-2010 have become an important tool for achieving environmental policy objectives towards reducing the negative impact on the environment. Technically feasible capacity for energy savings in the framework of implementation of Gazprom energy saving concept for 2011-2020 amounts to 28.2 million tons of fuel equivalent, including natural gas - 25.7 billion m3, electricity - 1.6 billion kW • h, heating - 956 Gcal, which would reduce greenhouse gas emissions at the level of at least 48.6 million tons of CO2-equivalent.

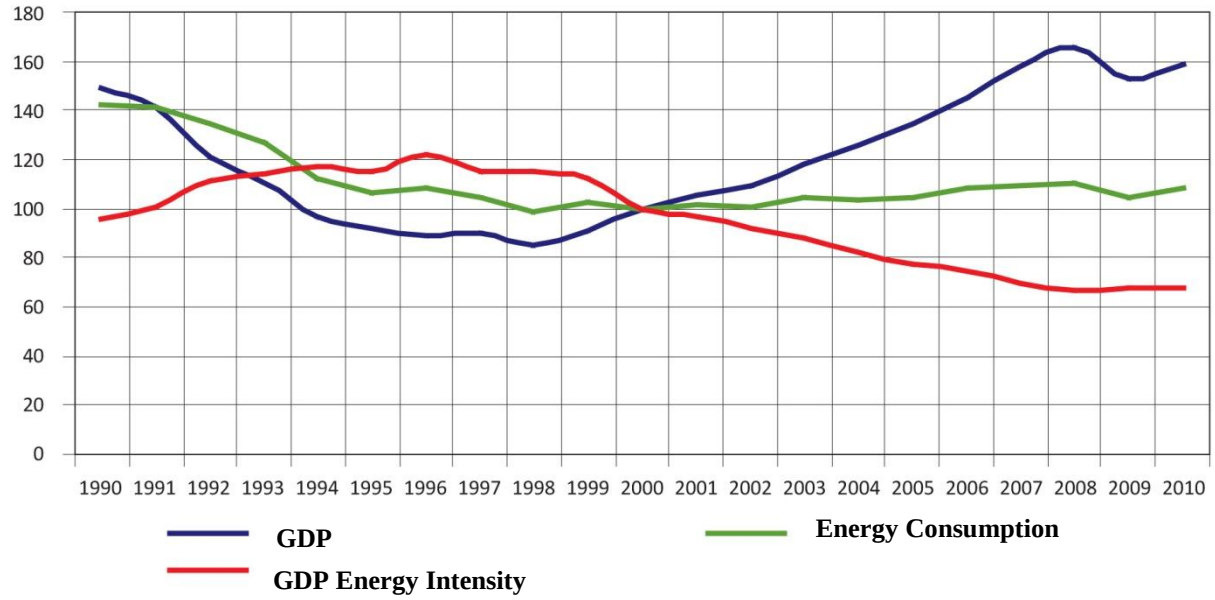
In the mid-2000s some 20 regions of Russia have adopted and implemented programmes to increase using gas as a motor fuel.

The principles of sustainable development, mainly translated into planning of activities in the environmental field, reducing harmful effects on the environment, environmental safety,

started to be taken into account in the long-term sectoral and regional development programmes - "Transport Strategy of the Russian Federation for the period up to 2030"[15], "Development Strategy for the Chemical and Petrochemical Industry in Russia for the period up to 2015"[16].

Experts estimate that as a result of these measures, as well as structural changes in the economy in 2000-2008 the energy intensity of Russia's GDP declined by more than 4% a year, which is substantially higher than in many countries of the world. GDP growth in the period of 1998-2010 years totaled 86%, and the growth of greenhouse gas emissions only 12%[17].

Dynamics of GDP, GDP energy intensity and energy consumption in the Russian Federation during 1990-2010 (with reference to 2000), %

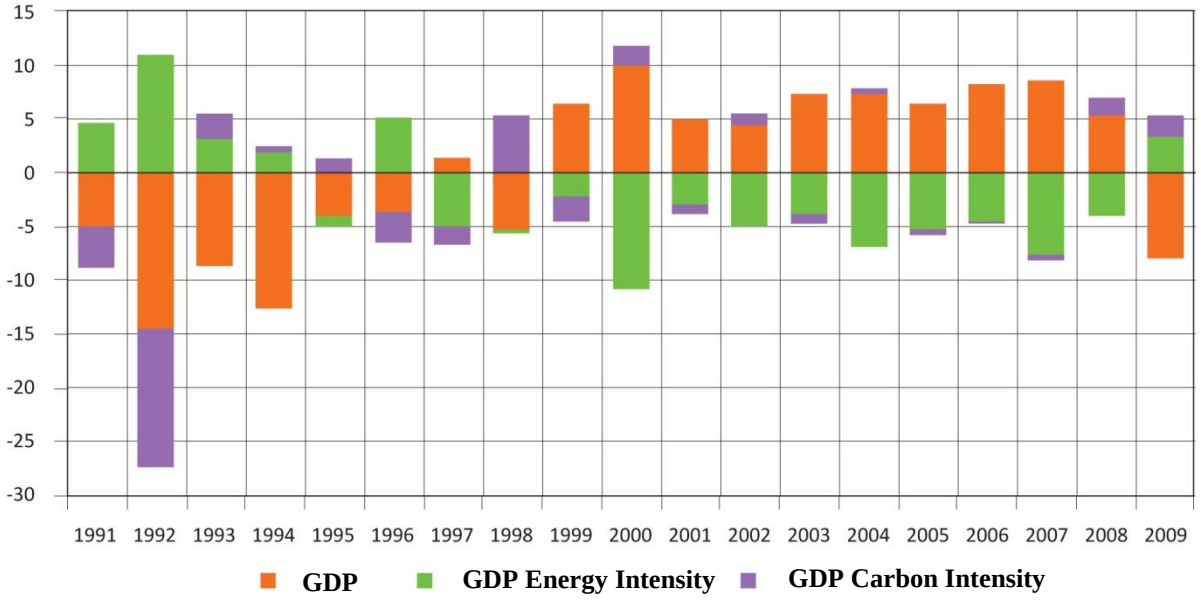


[15] Resolution of the Government of the Russian Federation No.1734-r, dated November 22, 2008.

[16] Order of the Ministry of Energy of Russia No.119, dated March 14, 2008.

[17] The Centre for Energy Efficiency data, www.cenef.ru.

Dynamics of GDP, GDP energy intensity and carbon intensity in the Russian Federation during 1991-2009 (with reference to 2000), %



Source: Report on "Energy Efficiency in Russia: policy, progress and paradoxes", Centre for Energy Efficiency, 2011, www.cenef.ru.

Thus, at the turn of the XX-XXI centuries, the Russian Federation saw some specific outcomes achieved from increasing energy efficiency of the economy and reduction of resource consumption through the implementation of various sectoral and corporate programmes. According to experts, these measures, as well as structural changes in the economy have provided reduction in energy intensity of Russia's GDP by more than 4% p.a. during 2000-2008, which is substantially higher than in many countries of the world. GDP growth rate during 1998-2010 years was 86%, and the greenhouse gas emissions grew only by 12%. The achieved outcomes became the basis for the future national policy aimed at the energy efficiency of the economy.

1.4. Research and education for sustainable development

The fundamentals of the Russian national policy of innovations were laid in the 1990s and formulated in the Federal Law "On Science and the National Policy on Research and Technology"[18]. During that period, the government had been taking active steps to protect the science during the crisis and, at the same time, to create a new institutional environment, new mechanisms and institutions for science and innovations.

Long-term strategic goals of Russia's policy in the field of science, technology and innovation were formally recognised in a number of conceptual and policy documents adopted in 2002-2007:

- "The Policy Framework of the Russian Federation in the Field of Science and Technology for the Period up to 2010 and beyond" (2002). This document formalized the message about the need for transition towards innovative development;

[18] Federal Law No.127-FZ dated August 23, 1996 "On Science and the National Policy on Research and Technology".

- "The Russian Federation Policy Guidelines in the field of Development of the System of Innovations for the period up to 2010" (2005).

In 2006, the List of Critical Technologies of the Russian Federation[19] was approved, which was then updated in 2011[20].

The priority areas of science development in the context of sustainable development are the information and telecommunication systems, life sciences, rational use of natural resources, energy efficiency, energy conservation, and nuclear energy.

Numerous research institutions of the Russian Academy of Sciences carry out fundamental research in the *field of sustainable development*. The Institute of Geography, of the Russian Academy of Sciences summarized the results of studies in four volumes: "Sustainable Development: Challenges and Prospects" (2002-2010). Volume V is to be released in 2012.

Under the auspices of the Commission of the State Duma of the Federal Assembly of the Russian Federation in 2002, a group of Russian scientists and public figures have prepared the "Scientific Basis for the Sustainable Development Strategy of the Russian Federation".

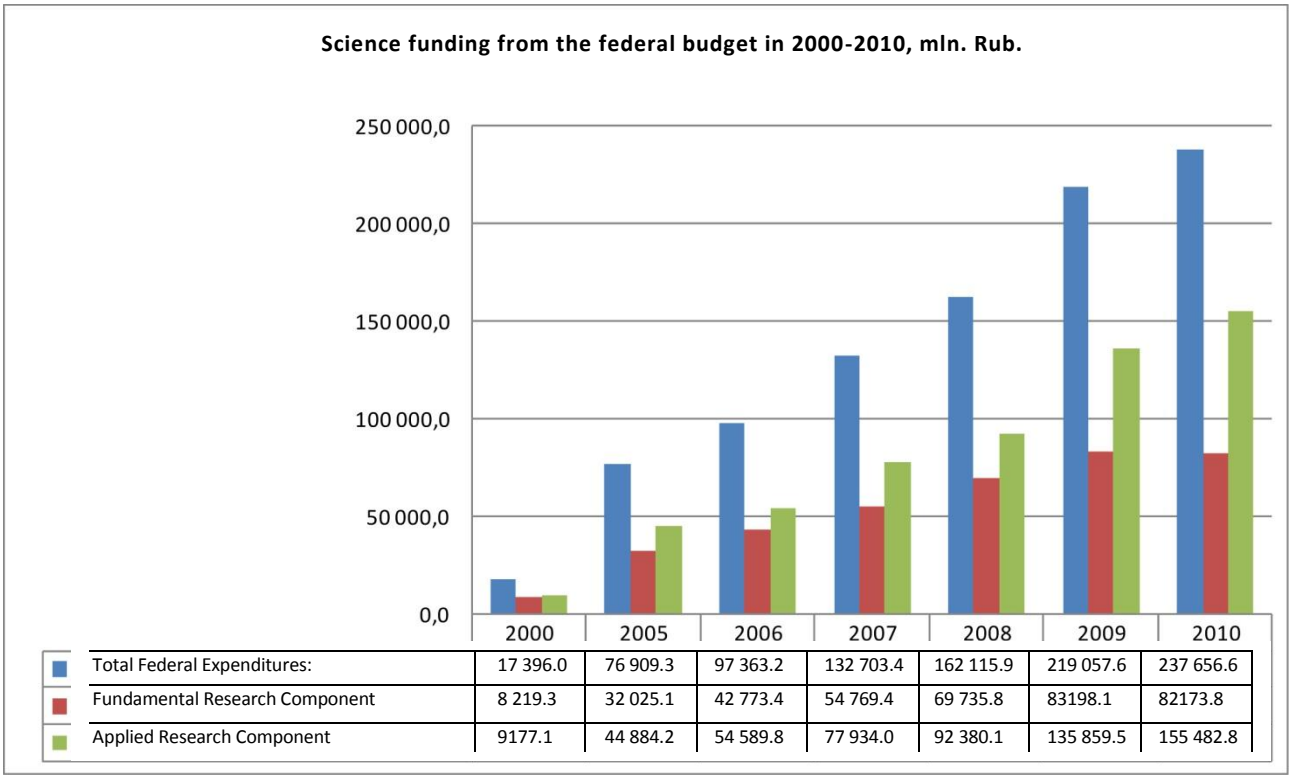
Over the past few years funding for fundamental science and applied research has been significantly increased at the expense of the public funds (1.6-fold increase during 2006-2008) and through the mechanism of federal programmes and government funds of research funding. Along with increased funding more attention is paid to the effective use of resources, raising competitiveness of research and development, efficiency and effectiveness of public spending on their support and development.

Significant inputs have been directed at stimulating innovative research and development in higher education. Some 57 institutions of higher learning received financial support of their innovative programmes (in 2005-2008 some 30 billion rubles were allocated to this end). Some 29 universities were assigned the status of national research universities on a competitive basis and were provided with funds for implementing the development programmes, including the creation of innovative infrastructure and advancing research activities (in 2009-2010 all development programmes received 8.42 billion rubles worth of funding). Also implemented are the measures to encourage world-renowned scientists to come and do the research at the Russian Universities.

Another relevant issue on the development agenda today is a capacity growing for participation of Russian scientists in the various international bodies, including the UN framework on the issues of sustainable development, including the preparation of surveys, research reports, etc. The present level of Russian participation in this activity is quite low.

[19] Approved by the President of the Russian Federation, May 21, 2006. Order -842.

[20] Decree of the President of the Russian Federation No.899 dated July 7, 2011. "On approval of the priority areas of science and technology development in the Russian Federation and the list of critical technologies of the Russian Federation".



	2000	2005	2006	2007	2008	2009	2010
Total Federal Expenditures:	17 396.0	76 909.3	97 363.2	132 703.4	162 115.9	219 057.6	237 656.6
Fundamental Research Component	8 219.3	32 025.1	42 773.4	54 769.4	69 735.8	83198.1	82173.8
Applied Research Component	9177.1	44 884.2	54 589.8	77 934.0	92 380.1	135 859.5	155 482.8

Source: Statistical Yearbook of Russia, Rosstat, 2011.

In 2010 it was decided to set up an innovation centre "Skolkovo" - the Russian "Silicon Valley." Skolkovo is known for the presence of a special environment for the residents carrying out R&D in the field of energy efficiency and conservation, including the development of innovative energy technologies, nuclear, medical and other technologies that will provide scientific and technical foundation for implementing the principles of sustainable development in Russia.

Education plays an important role in advancing sustainable development. The Johannesburg Declaration on Sustainable Development (2002) set a task of "Integrating sustainable development into educational systems at all levels in order to promote education as a key agent for change." The school is a critical element in the process of transition to sustainable development. The main goal of the modern school is to unlock the abilities of each student, and educate a character capable to live in a hi-tech, competitive world.

In 2010, Russia adopted a new National Educational Initiative "Our New School", [21] the main purpose of which is shaping the school to be consistent with the objectives of advanced development, which involves the unlocking of children's personality potential, encouraging spiritual growth and a healthy lifestyle. The objectives of the project are: the socialization of children with special needs, children with disabilities, children without parental care, support for gifted children, improving the quality of education, improving teachers' training, the development of supplementary, extra-curricular activities, renovating internal and external infrastructure of schools, promoting health and wellness plans.

The fundamentals of environmental awareness are reflected in the National Standards of Education in the school subjects such as "Environment", "Geography", "Chemistry" and others. Such free-standing subject as "Ecology" is optional. The Federal National Educa-

[21] Approved by the President of the Russian Federation, Pr-271, dated February 4, 2010.

tional standard for primary education[22] includes the requirement of developing the environmental literacy basics in students. The current national educational standards for vocational education in all areas of learning include such discipline as "Ecological Fundamentals of Nature Use."

Box 5. Institute of Chemistry and the Problems of Sustainable Development at the Mendeleev University of Chemical Technology of Russia

The Institute of Chemistry and Problems of Sustainable Development was established in 2000 as a department of the University, which, along with the academic research activities, is engaged in training bachelors and masters. The Chair of Sustainable Development enables students, masters and post-graduate students to gain additional knowledge on fundamental and natural sciences, to develop systems thinking, understanding of interdisciplinary relations, to feel personally responsible for global processes.

Students also study several specialist subjects that allow graduates working as social scientists, HR managers, etc. This career is one of the most sought-after and highly paid ones.

Source: Mendeleev University of Chemical Technology of Russia www.muctr.ru.

In recent years the Russian Federation has witnessed increasing number of users of nature trails and routes in nature reserves and national parks, which indicates the growth of environmental awareness efforts provided by the state. However, environmental organizations have expressed concern over the expansion of people's access to the protected areas. The issues of environmental education in the territories of the state natural reserves should be addressed ensuring the priority for conservation of protected areas.

Environmental education and tourism activities in the state nature reserves and national parks in the Russian Federation

Indicator	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
State Nature Reserves											
The number of nature trails and routes, total.	271	434	448	479	487	506	501	517	393	409	411
Visitors	184,219	168,977	200,426	377,839	397,714	247,448	384,724	632,219	444,110	617,172	1,200,427
National Parks											
The number of nature trails and routes, total.	279	366	391	384	393	406	435	455	665	736	774
Visitors	419,731	582,855	805,203	301,970	403,147	1,198,654	1,472,056	1,489,406	840,359	1,302,730	1,111,013

Source: Rosstat, www.gks.ru.

[22] Approved by Order of the Ministry of Education of Russia, No.373, dated October 6, 2009.

1.5. Reducing the risk of natural and man-made disasters. Global climate change

The population and territory of the country with numerous infrastructure facilities are exposed to negative impacts from hazardous natural and man-made processes (overall, there are more than 50 natural hazards, including about 30(thirty) of them in Russia). Sustainable development of the country necessitates taking measures to reduce the threat to life and the damage caused by disasters. The annual economic loss (direct and indirect) from emergencies amounts to 1.5-2% of GDP (from 675 to 900 billion rubles.).

To create a regulatory framework for dealing both with natural emergencies and man-made disasters the Russian system of early warning and response in emergencies (emergency management) was created as early as in April 1992, transformed in 1995[23] into a single national system of prevention and liquidation of emergency situations. After the adoption of the 1994 Federal Law "On protection of population and territories from natural and man-made emergency situations"[24] the operation of regional and functional subsystems of the unified national system of prevention and liquidation of emergency situations received legislative and regulatory support.

Despite the fact that the number of people killed in disasters in recent years has been steadily declining (according to the Ministry of Emergency Situations of Russia, during the period 1992-2010 the number of the injured in emergencies decreased by a factor of 23[25]), the risks of natural and man-made emergencies that arise in the process of global climate change, economic activity or as a result of major man-made accidents and disasters continue to pose a threat to the country's population and the economy.

Seismic hazards continue to pose significant threats to the population, as more than 25% of the territory of the Russian Federation with a population of over 20 million people can be exposed to earthquakes of magnitude 7(seven) or higher. In 2011, during the earthquake in Japan the modernized Russian tsunami warning system in the Far Eastern Federal District proved its effectiveness notifying the population in less than 10 minutes. As a result, more than 11,000 people were evacuated from the zone of possible flooding to the safe locations.

The development of the natural hazards warning systems, the methods of reducing and mitigating the consequences of emergences is one of the priority areas of the public policy at the federal, regional and local levels as well as in the international cooperation. Experts estimate that about 80% of natural hazards in the world have relation to hydrometeorological phenomena. Observations indicate that in the past decade, the number of natural hazards on the territory of the Russian Federation has been growing, year-on-year.

In 2000 the Federal Targeted Programme "Risk reduction and mitigation of natural and man-made emergencies in the Russian Federation up to 2005" was launched. In 2005, a new Programme was approved "Risk reduction and mitigation of natural and man-made emergencies in the Russian Federation up to 2010". Under Health and Safety activities the two

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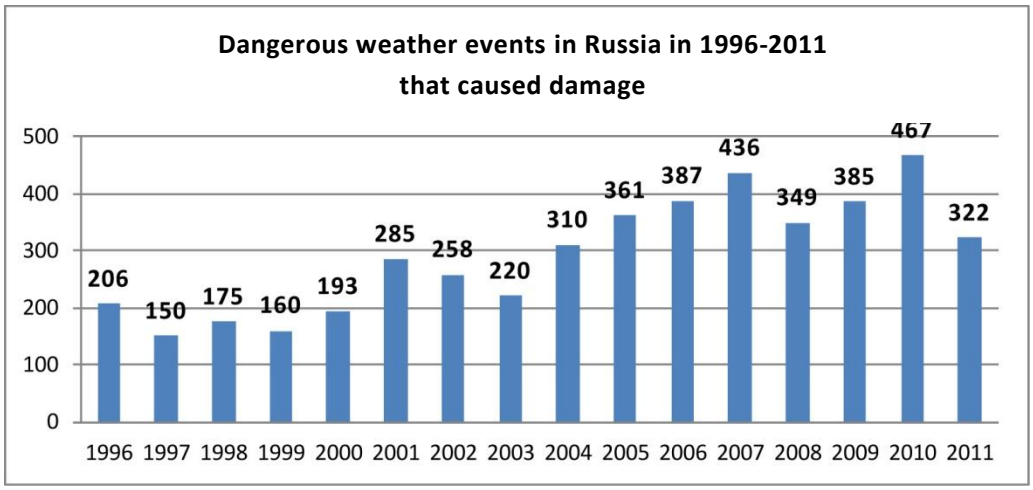
[23] Resolution of the Government of the Russian Federation, No.1113, dated November 5, 1995 "On the single national system of prevention and liquidation of emergency situations".

[24] The Federal Law No.68-FZ, dated December, 21, 1994 "On protection of population and territories from natural and man-made emergency situations".

[25] State report "On the status of protection of the population and the territory of the Russian Federation from natural and man-made emergency situations in 2010", The Ministry of Emergency Situations, www.mchs.ru.

additional programmes were implemented: "Mitigating radiation accidents for the period up to 2010", "Nuclear and Radiation Safety in 2008 and for the period up to 2015." Currently, the work is under way to reduce seismic hazard risks under the Federal Target Programme "Improving the stability of homes, core facilities and life support systems in seismic regions of the Russian Federation for 2009-2014".



Source: "Report on the climate patterns on the territory of the Russian Federation", Roshydromet, www.meteorf.ru.

The needs of the Russian Federation for information on the status and the level of pollution of the environment on local, regional and global levels are provided by the Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet). Such information is needed to improve the performance and future sustainable development of weather- and climate-sensitive sectors (agriculture, energy, transport, construction, municipal services, etc.).

In order to improve the hydrometeorological safety of the population and the economy (reduction of damage from weather hazards) Russia has been carrying a large-scale project of renovation and technical upgrade of the Hydrometeorological Service since 2005. The national monitoring network is equipped with more than 2,500 thousand automated systems, stations and posts, the state-of-the-art equipment for collecting and disseminating information.

In 2010, the country adopted the National Strategy in the field of hydrometeorology and related areas for the period to 2030 (including aspects of climate change)[26], aimed at providing a significant reduction of losses in the economy from natural hazards (hydrometeorological and heliogeophysical), gaining additional benefits from the favourable development of weather and climate processes and increasing the cost advantage in the economy from the use of information about the environment and its pollution.

Climate change is one of the most important international problems of XXI century, which goes beyond the science aspect of it, and is a comprehensive multi-disciplinary issue, encompassing environmental, economic and social aspects of sustainable development of the Russian Federation. The climate of Russia is more sensitive to global warming than the climate of many other regions of the globe. Over the past 100 years (1907-2006) warming in the whole of Russia amounted to 1.29°C compared to the average global warming of

[26] Resolution of the Government of the Russian Federation No.1458-r, dated September 3, 2010.

0.74°C. In 2011, the average surface air temperature for Russia has exceeded the temperature rate of 1961-1990 by 1.55ºC[27], whereas, according to the World Meteorological Organization (WMO), the global temperature excess in 2011 was above the average by 0.40ºC[28]. Since the early 1980s, we observe a reduction in the sea ice area in the Arctic (in 2011, the area of ice was 4.61 million km2, which is the second lowest value since 2007)[29].

The implementation of national climate policy commenced in the 1990s as part of the federal programme "Prevention of dangerous climate change and its adverse effects."[30] *Climate Doctrine of the Russian Federation*[31] adopted in 2009, defines the principles of modern domestic and foreign policy in relation to the problem of climate change. In this case, the strategic objective of the policy of the Russian Federation in the field of climate change is "to ensure the safe and sustainable development of the Russian Federation, including the institutional, economic, environmental and social, as well as demographic aspects of development in a changing climate and the emergence of the corresponding threats". In 2011 the country adopted a comprehensive plan for the implementation of the Climate Doctrine of the Russian Federation for the period up to 2020[32], including provisions for development and implementation of the Course of Action and long-term measures in the real sectors of the economy to adapt to climate change, as well as the measures to mitigate human impact on climate.

Today, the *National Policy on Climate Change* includes:

- improving energy efficiency in all the sectors of the economy;
- promoting the use of renewable and alternative energy sources;
- reducing market distortions, implementing measures of financial and tax policies that encourage reduction of man-made emissions of greenhouse gases;
- protection and enhancement of absorbents and reservoirs of greenhouse gases, including sound management of forests, afforestation and reforestation on a sustainable basis.

In 2009, the Russian Federation, announced its target to reduce man-made greenhouse gas emissions by 15-25% by 2020 on year 1990 levels. Delivery of this target under the global climate treaty, for which negotiations are still under way, is conditional on: the proper assessment of the capacity of Russian forests in the context of the size of the contribution to deliver commitments on reducing man-made emissions and the adoption of legally significant commitments to reduce man-made emissions of greenhouse gases by all major emitters.

In order to ensure the scientific support of the climate policy of the Russian Federation, the country has been implementing a comprehensive national weather and climate research plan since 2011.

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[27] The report on the climate patterns on the territory of the Russian Federation for 2011, RosHydromet, 2012.

[28] WMO Statement on the Status of the Global Climate in 2011, www.wmo.int.

[29] Assessment Report on climate change and its consequences on the territory of the Russian Federation. RosHydromet, 2008.

[30] Approved by the Government of the Russian Federation No.1242, dated October 19, 1996.

[31] Order of the President of the Russian Federation No.861-rp dated December 17, 2009.

[32] Order of the President of the Russian Federation No.730 dated April 25, 2011 No.730-r.

Box 6. International scientific conference "Problems of Adaptation to Climate Change"

In 2011 the Russian Federation, with the support of UN-based international organizations, held the International scientific conference "Problems of Adaptation to Climate Change" (Moscow, 7-11 November 2011), which brought together scientists and experts from 34 developed and developing countries all over the world, representatives of international and non-governmental organizations and businesses.

The final summary of the conference emphasized the importance of adaptation to climate change as the general objective of reducing climate risks (along with the reduction of human impact on the climate), and as an important component of the mechanism for implementing the sustainable development strategy. According to the participants, the Global Framework for Climate Services (GFCS[33]) is seen as the most prepared initiative to bring together the international community both in terms of scientific support of adaptation challenges and building the capacity of all countries regarding climatological services, and also ensuring cooperation and coordination of efforts and activities of the UN-based international organizations and other international organizations engaged in the climate adaptation work.

Source: RosHydromet, 2011 г. www.meteorf.ru.

At present, Russia is participating in the creation of a Global Framework for Climate Services (GFCS). The Russian priorities include: reduction of disaster risks, adaptation of the economy and the population to climate change, increasing agricultural productivity, improving the management of water resources.

1.6. The participation of civil society in the formulation of government policies on sustainable development and its implementation

Today there are over 80,000 non-profit organizations (NPOs) in Russia. The voluntary events involve millions of citizens. They are engaged in landscaping, searching for missing persons, and protection of environment; provide social assistance to families in difficult life situations. Many NPOs receive direct state aid. The size of charity activities in Russia in money terms is close to 100 billion rubles.

Meetings, personal appointments and public appeals are most customary and common form of communication between citizens and government. Surveys and public hearings are formalized in the current legislation and regulations. The draft laws are published on official websites of the bodies of authority. Citizens can submit their proposals or amendments to the draft bills.

Box 7. Society and the State: Feedback

The City of Ufa carries public opinion surveys on the issues of construction of industrial facilities affecting the environmental situation in the city, as well as on the challenges of infill housing development.

In the town of Uglich, Yaroslavskiy Region, the procedure for solving the problems of the city in the form of the public debate resulted in the project "People's Experts". The

[33] GFCS has been established under the auspices of WMO under the resolution of the 2009 Third World Climate Conference.

chairmen of territorial self-administrations through assemblies of citizens, building and block supervisors are studying the current problems of residents. The sittings of "People's Experts" are broadcast on local television. Public participation in the discussion of draft legislation and municipal legislation, and municipal programmes is the most important tool of civic participation and civic control.

In the City of Stavropol the local community is actively involved in the joint development and public adoption of urban development plans, and targeted community programmes. A number of decisions of the Stavropol City Administration, adopted recently in the field of urban public transport services, were being elaborated with the active participation of the civil society representatives. The process of the preparation and execution of works on the reconstruction and upgrading of urban roads takes into account the opinion of the public.

Source: "Report on the state of civil society in the Russian Federation in 2011" the Public Chamber of the Russian Federation.

Non-profit organizations established in order to address environmental problems, mainly represent the "green" movement, which was born in Russia as early as 1924 along the creation of the All-Russian Society for Nature Conservation. In the Soviet times, it had a membership of over 32 million people. Two leading international environmental institutions - the World Wildlife Fund (WWF) and Greenpeace have been in operation in Russia since the late 1980s.

The participation of citizens and civil society organizations / associations in meeting the challenges of environmental protection is one of the principles of economic and other activities of the government. It is upon their initiative that the public environmental expert assessment is carried out, the findings from which are taken into account when making economic and other decisions.

One of the areas of research conducted by non-governmental organizations is working out indicators of sustainable development and their implementation at the regional level.

The Institute for Sustainable Development of the Public Chamber of the Russian Federation "is an association of experts in the field of ecology, economics and sustainable development, focusing on finding solutions to social, economic and environmental challenges for the purpose of sustainable development in the interests of the civil society. The Institute is working to establish relevant regional institutions. The key priorities of their work include the development of sustainability indicators that reflect the cost of economic growth for the environment and human health, which could then be incorporated into the plans for social and economic development of the region. The preparation of reports has begun that will provide the basis for the development of ways of regional development towards the modernization of economy and sustainable development. In total, the work involved some 33 regions from all the eight federal districts[34].

The community organizations carry out extensive educational work on sustainable development.

For example, the website of the Russian Geographical Society (RGS) www.rgo.ru contains a section on "Sustainable Development". The RGS in Russia initiated the International Arctic

[34] Institute for Sustainable Development of the Public Chamber of the Russian Federation, www.sustainabledevelopment.ru.

Forum "The Arctic: Territory of Dialogue" (2010 and 2011), where the representatives of the governments of the Arctic region, the business community and non-governmental organizations are brought together to discuss various issues of sustainable development in the region seen as the international resource.

Since 2009, the citizens of the Russian Federation may appeal to the President of the Russian Federation on the environmental issues and climate change in the blog at www.kremlin.ru, in the section "Environment and Nature Use". New entries on the blog page appear almost daily. The representatives of environmental NGOs participated in the sittings of the State Council of the Russian Federation held in 2010 and 2011 with the agenda on environment protection.

The participation of representatives of the civil society and NPOs in the formulation and delivery of the state policy on sustainable development is seen as an integral part of sustainable development.

No structures of the civil society can replace the statutory authorities. But they can initiate the formulation of problems, propose solutions and actively participate in their implementation. Civil society is not only actively involved in the political life of the country. Millions of people are engaged in voluntary activities on landscaping, family welfare work, blood donation, and environmental protection.

In order to build a stable political system, the state needs to strengthen the Russian civil society, which is one of the elements of a stable political system.

1.7. A new concept of doing business

Today, Russian transnational companies have taken a strong position in the world market. The globalization of Russian business has demanded changes in its attitude to the international reputation, the issues of corporate social responsibility. Following the global trend, Russian companies are paying more attention to the disclosure of information about the activities in the area of sustainable development. The key rationale for reporting on sustainable development includes ethical considerations, strengthening the reputation and brand, as well as the motivation of the staff. In 2011, the number of companies preparing reports on sustainable development increased compared with 2010 in such sectors as “Energy and Infrastructure”, "Mechanical Engineering and Metalworking", "Food Industry", "Construction and Construction Materials”[35].

In accordance with the recommendations of the 2010 Meeting of the Presidium of the State Council on the reform of public administration in the field of environmental protection, the public corporations that are 100% state-owned are obliged to publish non-financial reports that are subject to independent audit on sustainable development and environmental responsibility.

In 2004, the Congress of the Russian Union of Industrialists and Entrepreneurs (RUIE) adopted the *Social Charter of Russian Business*. It focuses on "sustainable development of independent and responsible companies that is in line with their long-term economic interests and is contributing to social peace, security and well-being of citizens, and protection of

[35] From the report "Reporting of Russian companies in the field of sustainable development", ZAO “KPMG” 2012.

environment, and respect for human rights." Some 240 companies, sectoral and regional organizations, hiring almost 6 million workers, joined the Social Charter of Russian Business[36].

In 2006 the Chamber of Commerce and Industry(CCI) of the Russian Federation released a CCI standard dated September 10, 2006 "Social reporting of companies and organizations registered in the Russian Federation."

The globalization of the economy contributes to the development of *the international system of certification*, including environmental standards. Voluntary in nature, the standards of the International Organization for Standardization (ISO) have become in practice a fundamentally new competition tool in the international arena. The voluntary basis of their use is almost a prerequisite for success. The requirements for an environmental management system are defined in the ISO 14001:2004 standard, which corresponds to the Russian standard GOST R ISO 14001-2007 "Environmental Management Systems: Requirements with Guidance for Use". In general, a company working abroad, especially in developed markets, is subject to higher transparency requirements and has to improve its corporate governance structure. Experts estimate that in the Russian Federation from 1,000 to 2,000 enterprises were certified according to ISO 14001:2004 in 2009, the number of issued certificates being higher year-on-year by almost 800 pieces. In June 2011, the Committee of the Russian Union of Industrialists and Entrepreneurs studied the possibility of promoting the International Standard ISO 26000 – 'Guidance on Social Responsibility' in Russia.

Box 8. Is there a return on investment from CSR?

As in other countries, heads of companies in Russia consider corporate social responsibility (CSR) as a benefit rather than a heavy burden. The companies say that the programmes in the area of sustainable development, such as the reduction of carbon emissions or investments in health care are costly in the short term, although it is not always possible to predict exactly how large the impact of such programmes can be in the long term. This is because it is difficult to develop an exact formula for measuring the impact of CSR, and even the most active proponents of this approach are still working on it.

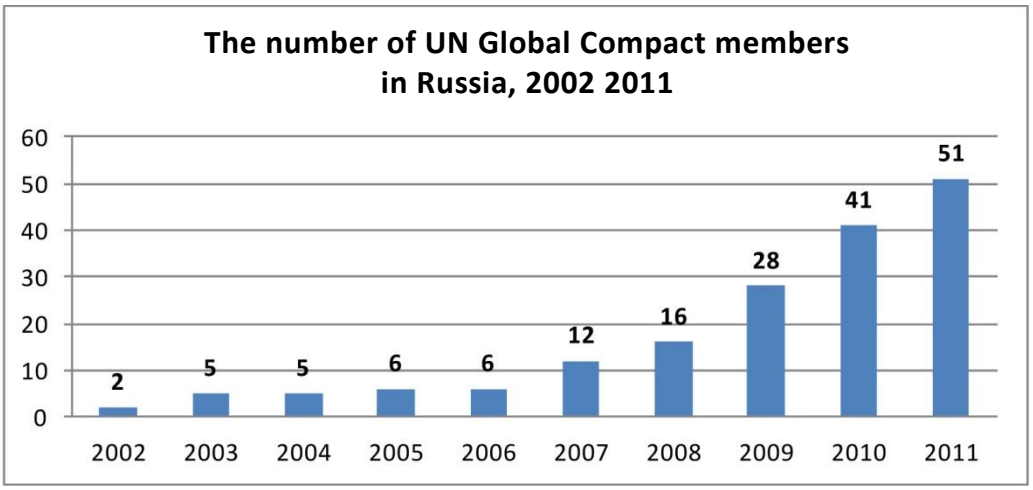
Heads of Russian companies have come to the conclusion that projects in the field of sustainable development can yield tangible results in many areas. One of the evident areas, especially in the context of record prices for energy and serious concerns about climate change is improving energy efficiency. For example, the financial benefits of the Lukoil company programme of saving 1.6 billion kW • h of power during 2006-2010 have been estimated at 1.7 billion rubles.

The majority of the companies are unanimous: CSR and sustainable development provide a competitive advantage and contribute to the brand strengthening. In addition, 70% of companies in Russia (more than in other countries) believe that CSR helps promote companies in emerging markets.

Source: Report "From Russia with Love" 2008 г. By The Economist Intelligence Unit on the initiative of UC RUSAL and with the support of PricewaterhouseCoopers in Russia and the UNDP.

[36] The data as of February, 22, 2012. Russian Union of Industrialists and Entrepreneurs http://eng.rspp.ru/.

The UN Global Compact is an initiative that unites commercial companies committing themselves to carry out their businesses in accordance with the Ten Principles (listed in Appendix 3), relating to human rights, labour, environment and corruption control. By joining the Global Compact, the companies confirm their stand that commercial activities, based on the universal principles of the Global Compact (relating to human rights, labour, environment and corruption control), contribute to greater stability, fairness and representativeness of the global market and are conducive to the formation of responsible civil society. Currently, more than 50 Russian companies have joined the Global Compact[37].



Source: UN Global Compact Network in Russia, UNDP in Russia, www.undp.ru.

Almost all major Russian companies have formulated policies on corporate social responsibility (CSR). Traditionally, much attention is paid to the improvement of social policies in the workplace, but now the issues of environmental protection come to the fore.

The significant cost of investing in CSR is one of the main obstacles to active development in this area. The lack of the required knowledge and skills, along with the lack of attention to this subject from the mass media, also makes it difficult to progress in this direction. Any positive experience that is indicative of the economic benefits and a wide range of potential benefits from investing into the sustainable development company policies can make a difference.

Creating incentives and obligations on part of the state aimed at the development of CSR should facilitate the introduction of the notion into the mind of the business community of the presence of shared values both in business and society.

1.8. Ethical standards of sustainable development. The Earth Charter Initiative

The representatives of Russian civil society during 1994-2000 participated in the development of the Earth Charter - an international declaration of fundamental principles and values to create a just, sustainable and peaceful global society in the XXI century. The ethical vision proclaimed by the Earth Charter states that the protection of the environment, human rights, equitable human development and peace are interdependent and indivisible.

[37] UNDP in Russia www.undp.ru.

The first region in the world where the principles of the Earth Charter were practically implemented was the Republic of Tatarstan, where the document was adopted at the governmental level[38] in 2001.

The adoption of the ethical standards of development, contained in the Earth Charter at the international level in response to the challenges of today should provide a framework for decision-making on environmental integrity, social justice, democracy and peace, and to promote awareness of each person's role in solving global problems.

1.9. Improving the system of evaluation of sustainable development

In 1992 along with the adoption of the concept of sustainable development the challenge of assessment of sustainable development performance came into view. Until now, the vast majority of countries, including Russia, have been measuring their development success by the GDP size and dynamics, focusing on its growth. The quality of growth and its cost implications (environmental and social) usually have been ignored.

GDP is not an adequate indicator to reflect many important aspects of the socio-economic development, the social and environmental factors, in particular.

The first attempt to provide a regular monitoring system of sustainable development policies in different countries has been made in respect of the measurement of progress in achieving the MDGs (more than 60 indicators for 8 goals,). But in this case, the system of indicators was selected on the basis of the specific objectives for a specific period of time - only until 2015.

In addition to the MDGs, there are other indicators of sustainable development designed by the UN-based international organizations, such as the World Development Indicators of the World Bank, the programme of environmental indicators of the Organization for Economic Cooperation and Development, Energy Indicators for Sustainable Development of the International Energy Agency and others.

The World Bank's "Genuine Savings" indicator reflects the national savings accumulation rate, after due consideration of natural resource depletion and damages from pollution.

There is a Human Development Index (HDI) from the UN Development Programme (integrated assessment of three key dimensions of human development: a life expectancy based on a healthy life-style; knowledge and education measured by literacy; decent standard of living, as measured by GNI per capita). Russia belongs to the group of countries with high HDI, ranking 65th of almost 180 countries[39].

Year	GDI	Life expectancy at birth (years)	Mean years of schooling	Expected years of schooling	Gross national income per capita (in U.S. $)
2011	0.755	68.8	9.8	14.1	14, 561

[38] Resolution of the State Council of the Republic of Tatarstan, No.722 dated April 27, 2001 "On the Earth Charter".

[39] National Human Development Report for the Russian Federation, UNDP, 2011.

The need to develop indicators of sustainable development was recognized in XXI Agenda adopted at the UN Conference on Environment and Development in Rio de Janeiro in 1992. Given the interdependence of the sustainable development of the national economy and the sustainable development of enterprises, it is appropriate to develop a coherent system of indicators for sustainable development based on a unified approach. The work on identifying the system of indicators that reflect progress in implementing the principles of sustainable development at both the national and global levels has not been completed. The lists of statistical monitoring must be supplemented with the integral parameters describing the various aspects of sustainable development, and the access to data to conduct regular assessments, including for research purposes, must be ensured.

The already accumulated experience of measuring development sustainability in the Russian regions should be taken into consideration. Various indicators of sustainable development in the early 2000s were being introduced by the governments of Tomsk and Samara, Kostroma and Kemerovo Regions, and other regions, where the so-called "genuine savings" were estimated confirming the fact that recognizing social and environmental costs of economic growth can significantly reduce growth indicators.

The challenge of objective assessment of growth is relevant for most industrial regions of Russia, in which the growth of welfare is based on the exploitation of natural resources and ecosystems.

Box 9. Indicators of Sustainable Development - a regional approach

The system of indicators of the Tomsk region. The most advanced and comprehensive system of sustainable development indicators across the Russian regions was developed in the Tomsk Region in 2003. It is constantly updated since, its main indicators being monitored. Overall, the system of indicators for sustainable development of the Tomsk Region includes 38 indicators, including 12 key indicators, 21 additional indicators, and 5 special use ones. Widely used are specific indicators, especially regarding natural resource intensity.

The index of adjusted genuine savings of the Kemerovo Region. The calculations conducted in accordance with the procedure of adjusted genuine savings showed a significant difference of traditional economic, socially and environmentally adjusted indicators of the Kemerovo Region. In the region, with its enormous scale degradation and depletion of energy resources and environmental pollution the situation is of vital importance when the formal economic growth takes place amid the environmental degradation, and the applied adjustment factors result in a significant reduction of traditional indicators even down to negative values. With a significant increase in GRP during 2001-2005 the adjusted net savings in the Kemerovo Region averaged a negative value (-10%). These are all typical signs of "anti-sustainable" tendencies of development. The modern economy of the region "lives on credit" from future generations. This is primarily due to the depletion of energy resources, depopulation and short life expectancy of the population, the accumulated environmental damage in the form of a disturbed and contaminated land, and degraded ecosystems.

Source: Institute for Sustainable Development of the Public Chamber of the Russian Federation.

To improve the system of performance indicators of the regional governments of the Russian Federation additional measures for the protection of the environment[40] have been introduced under instructions of the President of the Russian Federation, including a variety of indicators for monitoring harmful substances (pollutants) in the atmosphere, soil and water bodies, as well as budget allocations for environmental protection.

Quite interesting also is the experience of using systems of rating for sustainable development of the regions, which was applied by the environmental and energy rating agency ZAO "Interfax"[41]. The regions' ranking in the Russian Federation was carried out on the basis of the assessment of their sustainability as to the further development and reproduction of technical, human and natural potential, the estimate being based on the assessment of the effectiveness of the technical capacity of the regions, as well as the integrated index of population viability and sustainability of nature systems.

Environmental rating of the Russian Federation constituents on the basis of various official sources is being provided by the all-Russian non-governmental organization "Green Patrol"[42].

The new Russian economy requires new adequate indicators of development, taking into account more fully the social and environmental costs of economic growth, and reflecting objective indicators of economic growth, particularly where the latter is associated with the exploitation of natural resources. There is an urgent need for an informed choice and adoption of baseline indicators of sustainable development that are closely linked to environmental and social priorities of Russia's economic development in the long term.

In this case, the introduction of new indicators of sustainable development at the international level should not be a means of creating trade barriers or latent form of discrimination of goods and services, the process having to be supported by the relevant data of the national statistical observations.

[40] Government Decree No.148 dated, March 4, 2011.

[41] Rating scores of sustainable development of the Russian Federation regions, 2010. Moscow, ZAO Interfax, 2011.

[42] "Green Patrol". http://www.greenpatrol.ru/ecoreiting/.

2. LONG-TERM GOALS OF SUSTAINABLE DEVELOPMENT

2.1. The legal basis for implementing the long-term goals

The policy framework of the Russian Federation in the field of sustainable development has been set forth in the *1996 Concept of the Russian Federation Transition to Sustainable Development*[43], contributing to a "balanced solution of socio-economic problems and challenges of maintaining a favourable environment and natural resources in order to meet the needs of present and future generations." The concept involves the development of the package of policy and projection documents: national long-term strategy, long-term and medium-term forecasts, which include among other things the predictions of environmental change and ecosystems as a result of certain economic activities, short-term forecasts and programmes at the sectoral, regional (territorial) and federal levels. This concept has never been subjected to regular performance evaluation.

In 2008 Russia adopted the *Concept of the Long-Term Socio-Economic Development of the Russian Federation for the period up to 2020*[44], which defines "sustainable well-being of Russian citizens, national security, dynamic development of the economy, and strengthening the position of Russia in the world community" as core development goals. Since the concept sets particular targets to modernize the economy, to ensure civil and political rights of citizens, to develop human capital, etc., one can say that today it is a major policy document that reflects the country's development objectives in the frame of sustainable development (economic, social and environmental dimensions). The following is a summary of these goals.

Economy. By 2020, the Russian economy will not only remain a world leader in the energy sector, mining and processing of raw materials, but also must create a competitive knowledge- and hi- tech-based economy, seeing labour productivity growing by factor of 3-5 times.

- *Modernization and improvement of energy efficiency of the economy*

The share of industrial enterprises engaged in technological innovations should grow to 40-50% (2007 - 8.5%) and the share of innovative products in the output - up to 25-35% (2007 - 5.5%). By 2020, energy intensity will be reduced by 60-80%.

- *Research and Development*

The intention is to form a knowledge- and hi-tech - based economy. The size of the bill for domestic research and development must go up to 2.5-3% of GDP in 2020 (2007 - 1.1% of GDP) resulting from achieving much greater gains in performance of fundamental and applied research and development. Public spendings on basic and applied research will have to grow from 0.7% of GDP in 2008 to 1.3% in 2020.

Social sector. By 2020, the plan is to reduce the level of absolute poverty from 13.4% in 2007 to 6.7% in 2020; to increase the share of the middle class by 2020 - up to more than 50% of the population. The measures are envisaged to enhance the systems of health care, educa-

[43] Approved by the Decree of the President of the Russian Federation, No.440, dated April 1, 1996.

[44] Approved by the Decree of the President of the Russian Federation от No.1662-r, dated November, 17 2008.

tion, social adaptation of persons with disabilities, involve young generation into the labour and economic activities, and to improve the levels of pension provision.

- *The unemployment rate* will be reduced down to 4% of the working population.
- *Health care* spending will amount to 7% of GDP in 2020 (2007 - 4.2%).
- *The rehabilitation and social integration of people with disabilities:*
    - The number of children with disabilities who have been covered with rehabilitation services in specialized institutions for children with special needs will amount to 60% of the total disabled children in 2020 (40% - in 2007);
    - the level of employment of persons with disabilities will total 40% of the total number of disabled in 2020.
- *Education:*
    - 2020 the share of the population with higher and secondary vocational education will be 60-70% (2007 - 50%);
    - at least 60% of children aged 5 to 18 years will be provided with free services of supplementary education;
    - at least 50% of the people of working age will have opportunities to take part in continuous education each year;
    - Overall education bill will increase from 4.8% of GDP (in 2007-2008) to 7% of the GDP in 2020.
- *Provision of housing:*
    - the average level of housing provision will reach nearly 30 square meters per person (or about 100 sq. m. per average-sized family) in 2020;
    - waiting time of providing social rented housing for low-income citizens will be reduced to 3-5 years after being put on record;
    - credit and financial mechanisms for housing and infrastructure development will be implemented.

Environmental protection. The aim of Russia's environmental policy is a significant improvement in the quality of the natural environment and ecological conditions of human life, the formation of a balanced eco-oriented model of economic development and environmentally competitive industries. It is planned to increase budget allocations for reducing emissions, waste management and restoration of the natural environment to reach 1.5% of the GDP in 2020. The target environmental indicators of the country development, according to the Concept, are:

- reduction of specific levels of impact on the environment by the factor 3 to 7 depending on the sector;
- at least fivefold reduction in the number of cities with high and very high levels of pollution;
- reducing the share of people living in areas with adverse environmental conditions, from 43% in 2007 down to 14% in 2020;
- increasing the technological and environmental performance of the economy in 2020 will reduce the environmental impact by a factor of 2-2.5.

The key elements of the national environmental policy affecting the issues of sustainable development are set forth in the Environmental Doctrine of the Russian Federation in

2002[45]. In addition, in April 2012, the President of the Russian Federation approved the "Principles of the National Policy in the Field of Environmental Development of the Russian Federation for the period up to 2030"[46], the aim of which is addressing social and economic problems, ensuring green economy growth, conservation of the favourable environment, biodiversity and natural resources to meet the needs of present and future generations, the realization of everyone's right to a healthy environment, and strengthening the rule of law in the field of environmental protection and ensuring environmental security.

The national environmental policy is in need of the proper public awareness efforts. A regular study of public opinion should help to obtain objective assessment from citizens regarding the implementation of the national environmental and climate policies. The results of such studies should be taken into account when assessing the achievement of the targeted outputs of the programme and projects.

Box 10. Studying the public opinion on the environment and climate change

In December 2011, in the course of preparation for the Conference "Rio + 20" a survey was commissioned by the order of the RF Presidential Administration to examine public opinion in 83 regions of the Russian Federation on environmental issues and climate change. Some 6,024 people took part in the survey representing the main socio-demographic characteristics of the adult urban and rural population.

The survey brought the following findings:

– the majority of the Russians evaluate the environmental situation in the region where they live as unsatisfactory;

– nearly 80% of Russians regard the climate change and environmental pollution as a real threat to social and economic development of the Russian society;

– not more than 9% of the respondents have a positive view of the national policies on climate change and environmental pollution;

– 66.4% of respondents believe it necessary to tighten the system of environmental constraints on economic activities;

– more than one third of Russians are prepared to limit their access to certain benefits for the sake of resource conservation, however 45% of respondents believe that public opinion does not affect the formation of state policy in the field of environmental protection;

– the overwhelming majority of the respondents are not familiar with the term "green economy" actively used nowadays in the concept document, as well as with the national policy of “green” economy;

– more than 40% failed to assess the activities of the government in relation to climate change and environmental protection.

The principles of sustainable development are taken into account in the design of regional development strategies. Thus, in the Tomsk Region, they are incorporated in all phases of strategic planning and development of the region in the Tomsk Region Development Strategy until 2020, mid-term programme of socio-economic development of the Region in 2006-2010. There are many other examples of integrating the principles of sustainable development into the plans of regional development.

[45] Order of the Government of the Russian Federation, No.1225-r, dated 31 August 2002.

[46] Approved by the President of the Russian Federation, on April 30, 2012.

For example, the *Concept of Sustainable Development of the Indigenous Minorities of the North, Siberia and Far East of the Russian Federation adopted in 2009*[47] calls for strengthening the social and economic potential, the preservation of native habitats, traditional way of life and cultural values for present and future generations of 40 minorities living in communities in some 28 constituents of the Russian Federation (see the principles of sustainable development of indigenous peoples of the North in Appendix 4). Approved in 2010, the *Concept of Sustainable Development of Rural Areas of the Russian Federation for the period up to 2020*[48] aims at getting rural areas, constituting 23.4% of the Russian territory, up to a qualitatively new level that will ensure a balanced solution to the complex economic, social and environmental objectives while maintaining the natural resources and historical and cultural potential of rural areas.

In 2012 ,V.V. Putin, elected President of the Russian Federation, identified new goals for economic and social development of Russia in the medium term, including the areas of health care and social welfare, labour market development, science, etc., which complements and clarifies the existing development goals. Specific examples of goals promoting human development in the Russian Federation are: higher life expectancy in Russia - up to 75 years by 2025, lower mortality from TB down 11.8 cases per 100 thousand of population, decline in the infant mortality rate to 7.5 per 1,000 of live births, the creation and upgrading of 25 million high-paying jobs by 2020, creating some 14,200 jobs for people with disabilities annually during 2013 - 2015, etc.

In the twenty years that have passed since the United Nations Conference on Environment and Human Development in Rio de Janeiro, the Russian Federation established a legal basis for implementing 1992 principles of sustainable development. The country set specific long-term goals for socio-economic development. Among the priorities of economic development are: an innovative development related to energy efficiency of the economy; creation of conditions for the maximum realization of human potential in the social sector, and realization of a constitutional right of everyone to a healthy environment.

However, the Russian Federation has not created a coordinating authority in the field of sustainable development, so there is a need for closer integration of the efforts of various agencies to address the economic, social and environmental objectives.

2.2. "Green" Economy

In accordance with the concept of long-term socio-economic development of the Russian Federation for the period up to 2020, eco-efficiency economy is not only a particular area of business and economic policy, in general, but also a common feature of the country's innovative development that is closely related to more efficient use of resources.

As a result of enhanced technological and ecological efficiency of the Russian economy it is planned to reduce the environmental impact by a factor of 2-2.5 by 2020 that will allow achieving the level of the current indicators of nature conservation in the developed European countries. Given that, the level of environmental costs (the costs of reducing emissions,

[47] Order of the Government of the Russian Federation No.132-r dated February 4, 2009.

[48] Order of the Government of the Russian Federation, No.2136r, dated November 30, 2010.

waste management and restoration of the natural environment) can increase up to 1-1.5% of GDP in 2020.

The Russian Federation has not adopted any definitions of “green economy” and “green” growth at the state level, but, nevertheless, they should be understood as efforts involving design, production and use of technologies and equipment for control and reduction of emissions of pollutants and greenhouse gases, technologies of energy and resource conservation and renewable power generation, as well as the development of market and non-market incentives for business sector. Given that, almost all the concepts of "green economy" are based on the alternative or non-polluting power generation on the basis of the use of non-hydrocarbon energy sources and energy efficient technologies.

At present, about a third of the generated electric energy in Russia is produced from non-hydrocarbon energy sources: in 2010 this share was 33% (including 17% of nuclear power, 16% - hydropower and energy from other renewable sources), which corresponds to a global average. In the future, this figure is expected to grow primarily by increasing the contribution of renewable energy sources (excluding large hydro-stations), taking into account the target set by the government in 2009 of significantly increasing the share of these energy sources in total energy mix from under 1% to 4.5 % by 2020[49].

The development of clean energy and “green” economy as a whole will supported by the series of measures to address yet another task that is even more important for modern Russia that was set by the country leaders in 2008 - a reduction of 40% energy intensity of GDP by 2020[50]. Upon achieving the indicators listed above and taking into account the expected increase in the contribution of nuclear energy in the beginning of the next decade, the non-hydrocarbon sources can provide more than 2/5 of the total electricity production.

The federal and regional programmes on improving the energy efficiency of the economy are underlying the package of measures aimed at long-term development of clean energy. In 2010, Russia adopted the national programme *"Energy-Saving and Improving Energy Efficiency for the period up to 2020*"[51]. The key for its implementation is the rational use of energy resources through energy conservation, energy efficiency of the utilities and other sectors of the economy, and a wider use of renewable energy sources.

Box 11. Key facts and figures from the State programme "Energy Conservation and Improving Energy Efficiency for the period up to 2020".

Through the implementation of the programme in 2010-2020 it is planned to achieve:

– total energy savings of $ 1,100 million tons of conventional fuel;

– reduction of greenhouse gas emissions at a rate of 673, 5 million tons of CO2-eq during Stage I (2011-2015) and 2,436 million tons of CO2-eq. - for the whole duration of the programme (2011-2020);

– overall savings across the budgets of all levels to acquire energy resources for public facilities from 2011-2015 – totaling 175 billion rubles and in 2011-2020 - 530 billion rubles;

[49] Order of the Government of the Russian Federation, No.1-r, dated January 8, 2009.

[50] Decree of the President of the Russian Federation dated June 4, 2008 No.889 “On some measures to improve energy and environmental performance of the Russian economy".

[51] Approved by the Federal Government Resolution No.2446r, dated December 27, 2010.

– financing the programme activities in the amount of 9,532 billion rubles, of which a significant part will come from extra-budgetary sources of financing.

Also, the provisions are made for a wider public awareness and educational activities in the field of energy conservation and energy efficiency, as well as the formation of lean behavior patterns of the population.

Source: The Government of the Russian Federation www.government.ru.

In the context of the "green" economy, along with the objectives of the modernization of the economy of the Russian Federation there are pressing issues regarding the elimination of the accumulated damage and the development of measures to reduce the amount of waste and designing the recycling systems for different types of wastes. Meeting these challenges requires a change of the modern concept of production and consumption in the country and the widespread use of various incentives towards resource-saving measures (a system of economic incentives, combining both benefits and sanctions) both at the production and at the household levels.

The notion of a "green" economy incorporates: maintaining a favourable environment, biodiversity and natural resources to meet the needs of present and future generations; ensuring rights of citizens to a healthy environment, and strengthening the rule of law in the field of environmental protection ensuring ecological safety, and environmental education and awareness; shaping environmental culture in society, raising public awareness on the "green" economic development policy. To maintain a proper publicity level for implementing the National Programme on Energy Efficiency, a public Internet portal "Energy Efficient Russia» www.energohelp.net was launched. In addition, the state information system is soon to be commissioned for the sector of energy conservation and energy efficiency providing information for the public and professional audiences on the issues of energy saving as well as on the process and mechanisms of implementation of the state policy in this area.

Greening the Russia's economic development is an essential tool to modernize the Russian economy, the transition to an innovative social-oriented type of development and the achievement of Long-Term Concept of Socio-Economic Development of the Russian Federation until 2020.

The key elements of the "green economy" and "green" growth underlie the decisions adopted in 2008-2011on improving the energy and environmental performance of the economy by 40% by 2020 and increasing the share of renewable energy in total energy mix from under 1% to 4.5% in 2020, etc.

In the context of the "green" economy, along with the objectives of the modernization of the economy of the Russian Federation there are pressing issues regarding the elimination of the accumulated damage and the development of measures to reduce the amount of waste and designing the recycling systems for different types of wastes. These measures will help reduce the harmful effects on the environment and reduce emissions of greenhouse gases. The "green" economy involves the development of environmental education, shaping the environmental culture in the society, promoting "green" economic development policy.

2.3. Sustainable energy

UN has declared year 2012 the International Year of Sustainable Energy. In this regard, it should be noted that Russia holds a unique position in the world. The 2011 Report by the International Energy Agency (IEA) states: "Russia's large energy resources underpin its continuing role as a cornerstone of the global energy economy over the coming decades"[52].

Energy resources are critical to improving the quality of life and expanding opportunities offered to the citizens of the world - in both developed and developing states. G8 leaders stated in 2006 in St. Petersburg, in a statement on the Global Energy Security, that "neither the global energy security, nor the Millennium Development Goals can be fully achieved without ensuring a sustainable access of 2.4 billion people to fuel resources and of 1.6 billion people to electricity in developing countries that are currently deprived of it." The global UN initiative "Sustainable Energy for All" aims to achieve (by 2030) the three main objectives, namely: to ensure universal access to modern energy services (eradicating energy poverty); to decrease global energy use intensity by 40%; to increase the share of renewable energy in the world to 30%

Russia ranks first in the world in the production of natural gas and oil fully satisfying its own considerable energy needs, being also the largest exporter of natural gas (the first in the world), oil (second only to Saudi Arabia), petroleum products (third place after U.S. and China) and coal (the sixth largest in the world).

Natural gas is a highly efficient source of energy, the use of which creates the least negative impact on the environment compared with other fossil fuels (for example, the substitution of fuel oil and coal will result in the reduction of specific CO2 emissions of up to 50%).

In the early 1990s, the share of gasification of Russian regions was less than 50%. Year 2010 saw an increase in the level of housing gasification of the Russian Federation from 51.7% (59.7% - in the cities, 30.6% - in rural areas) to 77.9% (82.4% - in the cities, 68.5% - in rural areas). Gasification of farms implies an access to a clean, affordable and reliable source of energy, and an example of a public-private partnership between "Gazprom" and the state authorities.

Box 12. Gasification of Kamchatka

In 2011 OAO "Gazprom" launched a project to provide access to natural gas in the Kamchatka Krai. For the gasification of consumers it is required to build 0.32 million km of gas pipelines. Gasification will cover 30 settlements in the Elizovsky city okrug (including Vilyuchinskiy and Petropavlovsk-Kamchatskiy city okrugs), Sobolevskiy and Ust-Bolsheretskiy districts. The population of the areas serviced by gas totals 0.021 million, the number of gasified flats (households) – 8,100.

In the Kamchatka Krai overall consumption of fuel (coal, gas, fuel oil, and others including firewood, domestic heating oil, diesel fuel, peat, etc.) will increase in 2030 by 15% on year 2010. The share of gas in 2030 in the balance of fuel and heating oil will rise from 32.3 to 43.4%.

Changing the balance of consumption of different types of fuels in towns and other human settlements of the Krai is expected to reduce harmful emissions (combustion products) as follows:

- Sulfur dioxide - by 14%;
- Carbon dioxide - by 1%;

[52] World Energy Outlook 2011. Main provisions. Paris: IEA/OECD, 2011, p. 8.

- Carbon dioxide - by 2%;
- Formaldehyde - by 13%;
- Benzo (a) pyrene - by 8%.

Under the general plan of the regional gasification it is proposed to convert transport to natural gas (mostly public transport and cargo vehicles) in the amount of 2,700 units (which ranges from 2 to 5% of the overall fleet).

The size of prevented damage (in money terms) to atmospheric air in Kamchatka Krai on condition of replacing coal and fuel oil with gas (0.555 million tons of fuel equivalent) will total 157,380,875 rubles.

Source: OAO "Gazprom".

A large modern infrastructure project to export natural gas to Europe is the gas pipeline "Nord Stream", the first branch of which was put into operation in autumn 2011.

Box 13. An energy bridge between the EU and Russia

Nord Stream is an international consortium of five major European energy companies, established in 2005 in order to design, construct and operate the pipeline, which consists of two lines, each stretching for 1,224 kilometers across the Baltic Sea bottom.

After it is fully commissioned, the gas pipeline "Nord Stream" will transport to Europe 55 billion m3 of gas per year for a minimum of 50 years. This volume of gas will be sufficient to provide more than 26 million European households.

Replacing coal with gas for power generation in the EU will reduce CO2 emissions by 207 million tons per year.

Possible alternatives to "Nord Stream":

55 bln. m^3 =	150 oil tankers in the Baltic Sea
	550 LNG ship carriers in the Baltic Sea
	55 coal-fired power plants,
	23 new nuclear power plants
	19 new hydroelectric power plants
	240,000 windmills
	90 000-100 000 km2 of corn fields for producing bio-ethanol

The Nord Stream is implemented in accordance with international environmental standards, as well as with national and international legal requirements.

Source: OAO "Gazprom".

In 2009, the country adopted *The Energy Strategy of Russia for the period up to 2030*[53]. Its implementation will result in:

- energy security of Russia and its regions, as well as participation in the formation of a system of global energy security, including by means through diversification of export routes, reducing the dependence of the country's economic well-being

[53] Approved by the RF Government Decree, No.1715-r, dated November 13, 2009.

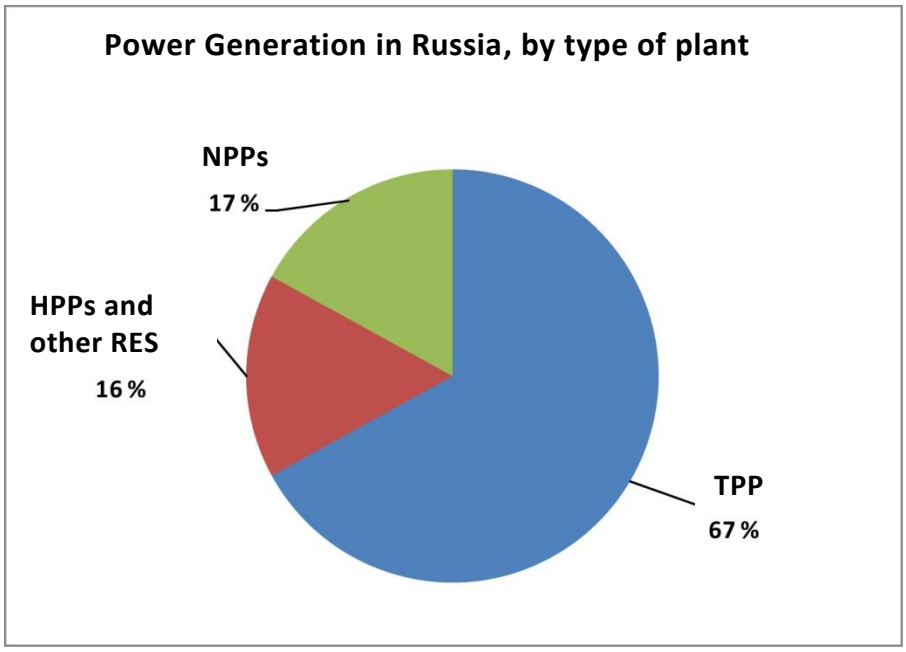
from oil and gas sector with a reduction in the share of fuel and energy sector in the GDP from 30 to 18 %;

- reduction of energy intensity of GDP by at least a factor of 2.3;
- optimization of the fuel and energy balance of the country with a reduction of the share of gas in the domestic consumption of fuel and energy resources from 52 to 46-47% and an increase of the share of non-fuel energy from 11 to 13-14%;
- environmental safety and limitation of greenhouse gas emissions in the energy sector.

In 2011, it was decided to establish a national information system of the fuel and energy complex (FEC NIS)[54], which will provide information on the status and forecast of the fuel and energy complex development.

Along with the unique reserves of fossil fuel resources and the potential to improve energy efficiency and energy savings Russia has a great capacity of hydroelectric power and energy from other *renewable energy sources (RES)*. Russia concentrates about 9% of the world's hydropower resources. In terms of provision of hydroelectric resources, Russia ranks second in the world with some 40 hydro-power plants in operation with the cumulative capacity of more than 100 MW, and it is considerably less than the existing capacity of available water resources.

As noted above, by 2020 the Government of the Russian Federation[55] plans to increase the share of renewable sources in power generation up to 4.5% less large hydro plants, and up to 19-20% - in view of the latter. Thermal power generation from renewable energy sources will increase from 63 million Gcal in 2010 to 121 million Gcal in 2020.



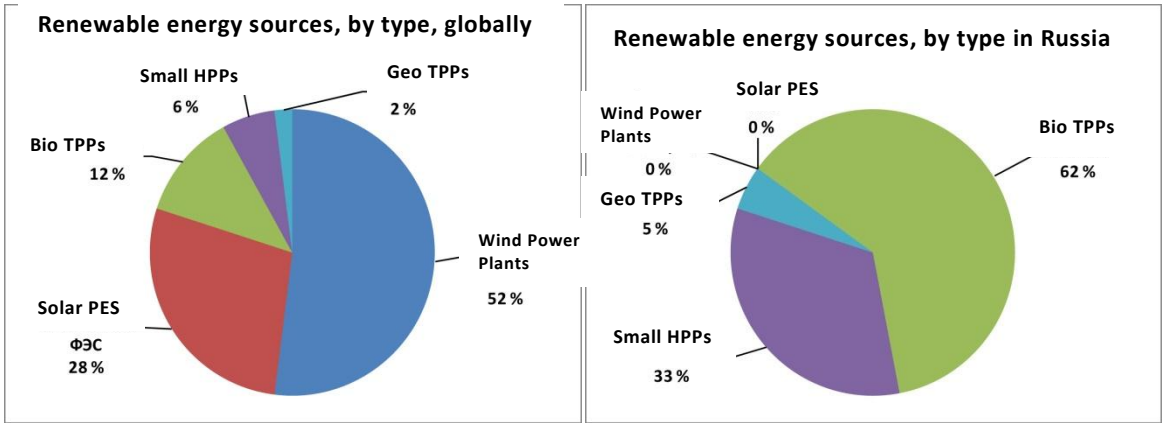
Source: Statistical Yearbook of Russia, Rosstat, 2011 .

[54] The Federal Law No.382-FZ dated 03.12.2011 "On the National Information System in the Fuel and Energy Sector".

[55] Order of the RF Government No. 1-r dated January 8, 2009.

The present and the immediate future of using RES are associated primarily with the industrial installations using biomass (wood waste, and industrial crops), as well as with small hydro plants, for which a significant development opportunities exist in many regions of Russia. In 2009, they accounted for respectively 62 and 33% of electricity from renewable sources, which fact markedly distinguishes Russia against the background of the situation in the global renewable energy the production of which is dominated by generation facilities on the basis of wind and solar energy.

Russia is a major producer of bio-fuels. About 140 companies produce nearly 1.9 million tons of bio-fuel per year, including about 1 million tons of wood pellets [56] (6% of world production). The energy potential of using biomass for the period until 2020 is estimated by experts at the level of 20 GW.



Structure of production of electricity from renewable energy sources in Russia and in the world in 2009 (% of total). Source: Kazantsev T.V. Solar power in Russia and the world. Russian Energy Agency, Press Digest March 9, 2011.

Cost of energy derived from renewable energy sources reduces every year. However, even today the best performance RES fuels are inferior to fossil fuels. Given that at present a cost-effective use without government support is only possible for a small part of the available renewable energy resources, the state envisages additional mechanisms to promote the use of renewable energy projects, including the provision of subsidies, measures of tariff and tax regulation, and institutional measures. The long-term goal in this area is to achieve a natural competitive edge in using most types of renewable energy compared to fossil fuels.

Nuclear power. Today, nuclear power plants produce about 17% of the electrical energy of the country, and this percentage will continue to grow. After the accident at the Japanese nuclear power plant "Fukushima-1" in 2011, the country's nuclear energy sector is putting its primary focus on the safety issues. With respect to Russian nuclear power plants it should be noted that reliability and safety are confirmed by regular checks by independent inspectors from international organizations. Over the last 5 years there was not a single serious breach of security at Russian NPPs classified above zero (minimum) level on the international INES scale (International Nuclear Events Scale)[57]. By reliability criteria, Russian NPPs placed second in the world among countries with developed nuclear power, being ahead of such developed nations as the U.S, UK and Germany. The construction of new re-

[56] The world is switching to biofuels / / Vedomosti. - March 4, 2011.

[57] Here and below the Rosatom data, www.rosatom.ru.

actors is also under way. For the new units under construction the total cost of security systems that prevent radiation effects on the population and the environment, under the most unfavourable conditions (the crash of a heavy aircraft, earthquake, tsunami, and a blast wave) is nearly 40% of the cost of the power unit.

Not least important is the multiplier effect of using clean energy, which is manifested in a higher demand for the products of other sectors and industries, including such crucial sector for the modernization of the economy in general and the manufacturing sector in particular as mechanical engineering. The Russian Federation has a scientific and production potential of power engineering, electronics, and aerospace industries to produce competitive wind turbines, allowing a significant increase in the available capacity (by a factor of 20).

Being the largest supplier of energy, Russia is contributing to the global efforts in the context of the UN initiative "Sustainable Energy", and meets its own energy needs at the expense of large-scale energy efficiency measures in the economy and the diversification of energy sources. While implementing this initiative the Russian Federation is guided by the national features of the country. Thus, the Russian Federation will focus on implementing energy efficient technologies, providing access to natural gas in the Russian regions (as a highly efficient source of energy, the use of which produces the least negative impact on the environment compared with other fossil fuels), the use of water resources (Russia holds nearly 9% of the world's hydropower), biological resources and the development of nuclear energy, ensuring high standards of safety.

2.4. A "green" economy and job creation

Overcoming the economic crisis of 2008-2009 required the government to implement a set of measures including the measures to reduce the rising unemployment. As a result, the labour market situation was stabilized and the uncontrolled unemployment growth prevented.

The labour market stabilization during the crisis and post-crisis periods was achieved via a series of solutions in the field of employment (or labour market). The key measures were aimed at retraining workers, setting up own businesses, enterprise development, employment support under the new terms of restructuring and renovation of enterprises. Such massive government-funded professional retraining of employees of those enterprises that elected innovative development or restructuring in the new economy managed to create thousands of new jobs. The overall unemployment rate in the Russian Federation, as of February 2012 amounted to 6.5% of the economically active population (March 2010 - 8.6%). Stabilization of the situation in the labour market remains one of the government priorities.

Today, there is no definition of "green jobs" agreed by the international community, a term that appeared recently along with the "green" economy and "green" growth. "Green" jobs should, apparently, be considered from the standpoint of the general impact of employment on the policy measures taken towards development of a "green economy" and "green" growth.

The concept of long-term socio-economic development of the Russian Federation for the period up to 2020 in the environmental sector envisages a multifold increase in the number of jobs: from 30,000 in 2008 to 300,000 by the end of the period. The state programme to improve energy efficiency by 2030 envisages training and retraining of 450,000 professionals in the field of energy conservation and energy efficiency.

In addition, Russia is implementing a concept of "decent jobs" (primarily at the expense of closure of jobs that are harmful or hazardous to reproductive health) in the development programmes of specific sectors and regions, taking into account their manufacturing and technological, socio-economical and environmental specifics.

By 2020 it is planned to create and upgrade 25 million high-performance jobs, creating some 14,200 jobs for people with disabilities annually during 2013 – 2015, and other measures.

It should also be noted that the problem of unemployment in Russia is to a large extent structural in nature, which means staff shortages in some sectors and regions of the country and a surplus in others. The solution to this problem requires the modernization of staff training system, in which the incentives for creation of new jobs become a very flexible and effective tool, given that the various segments of the "green economy" show a demand for highly qualified workforce as well as for the employees with average skills level.

The Russian Federation sees the issue of creating "green jobs" primarily as one of the approaches to solving the problems of employment. The priority here is to create "decent" jobs both in terms of pay and career opportunities, including in the new sectors thanks to the development of a "green" economy.

3. MODERN CHALLENGES OF SUSTAINABLE DEVELOPMENT AND A NEW DEVELOPMENT PARADIGM - RUSSIA'S PRIORITIES

Today, the priority for the Russian Federation, as well as for the majority countries of the world, is to overcome the effects of the economic crisis, create a competitive, innovative economy contributing to the welfare of citizens and ensuring them equal opportunities.

The key challenges of sustainable development today and in the long term for the Russian Federation are:

- strengthening the worldwide competition for the factors that determine the competitiveness of innovative systems;
- demographic issues - aging / shrinking population, migration processes that increase a social burden. Today Russia has a population of 143 million people. Although since 2000 the natural population decline was reduced by a factor of 7.3, and life expectancy in Russia has exceeded the 70-year mark, the natural population growth is not yet observed;
- climate change;
- pollution. Today, 56.3 million people (55% of the urban population) live in urban areas with high levels of pollution;
- degradation of ecosystems;
- challenges in ensuring food security on a global scale;
- increased energy demand in Russia and in the world;
- growth of amount of waste, including hazardous waste, and the problem of the elimination of accumulated environmental damage.

Among the key routes or answers to the challenges to sustainable development we should consider the following:

- We need a new concept of ecological and economic development, including the creation of new patterns of manufacture and consumption based on the energy efficiency of the economy and productivity, without extra pressure on natural resources and the climate system. Given that, the development of innovative, energy-efficient "green" economy and the introduction of "green" technologies to help minimize damage to the environment is advantageous from an environmental and economic standpoint. Economic growth can only be justified when the interests of the economy and the task of saving nature are in the state of a reasonable balance that is sustainable in the long term. This growth is expected to minimize the associated environmental and social costs.
- Economic growth is associated with an increase in energy demand. The core concept of sustainable energy must incorporate the issues of access to modern forms of energy, improving efficiency of energy consumption, switching to cleaner energy sources, diversification of energy sources (including the development of power generation from renewable sources) keeping in mind the natural capacity for their development.
- A prudent and civilized attitude to nature should be a prerequisite for development programmes and implementation of major infrastructure projects. The quality of environment is a key factor of the competitiveness of the economy, but at the same time, it should not create barriers or encourage latent discrimination in the international trade.

- The concept of sustainable development is perceived by the business community as one of the elements of competition. The state should establish obligations for public companies on sustainable development policies, including regular non-financial reporting.
- Sustainable development should promote participation of all the members of society in economic and political life, but especially people with impairments. At present, there are about 13 million disabled people (8.8% of the population) in Russia.
- For more than a thousand years now, the Russian Federation has been inhabited by the representatives of more than 180 people of different nationalities and faiths. The multinationality is a unique advantage of our country. Sustainable development needs to support the harmonization of inter-ethnic relations, as well as the conservation of native habitats, traditional way of life and cultural values of 40 indigenous peoples living in the Russian Federation.
- Peace, development and nature are interdependent and inseparable. Conflicts hamper the development and push it back. There can be no lasting and sustainable peace where natural resources ensuring adequate standard of living and adequate functioning of ecosystems are damaged or destroyed. The new paradigm of global development is to ensure the preservation of peace and global security.
- Sustainable development involves the creation of the security system with reference to the natural threats and man-made disasters, including hazardous weather and climate events. To this end it is necessary to improve the national system of monitoring and warning, to carry out their technical upgrade and strengthen the scientific basis for forecasting activities. Of great importance in this area is the international cooperation.
- One of the important places in the new paradigm of sustainable development should be given to science, stimulating technological progress in all areas of life and creating scientific validity behind the political and economic decisions.
- Education plays a key role in ensuring sustainable development. It is necessary to improve the quality of education, to organize environmental education at all stages of school education, foster respect for nature. More educated people take more rational choices. A significant role for the future innovative development is played by attitudes and behaviors formed in humans in their childhood. Not least important are moral aspects of education which should arouse in everyone a sense of interdependence and universal responsibility for the prosperity of the people and the entire living community. Utmost importance should be given to the development of spiritual and moral foundations of all social communities, including support for interfaith dialogue at the global and regional levels.
- Specific objectives of sustainable development (and, therefore, indicators) must be established by countries to reflect their national identities and needs that will ensure the relevance of the measures taken and national development priorities.
- To monitor the achievement of the sustainable development goals will require new indicators that reflect economic growth, environmental and social aspects of development, as well as the social and environmental costs related to the economic growth. Given that, such new indicators should not create barriers or be a means of latent discrimination in the international trade.
- Sustainable development also implies the effective interaction of all levels of government, the professionalism and competence of the decision makers on the interrelated issues of socio-economic development and environmental protection, as well as the involvement of civil society in political decision-making.

CONCLUSIONS

On June, 20-22, 2012 the heads of state and government will gather again in Rio de Janeiro, 20 years after the UN Conference on Environment and Development in 1992 to evaluate the progress so far achieved for continuing as well as new and emerging challenges. Key themes of the upcoming conference are "green economy in the context of sustainable development and poverty eradication" and "institutional framework for sustainable development."

Today, environmental degradation, loss of biodiversity, air pollution, poverty, hunger, malnutrition, disease, and economic uncertainty still exist in the world, despite the opportunities and technological capabilities being at the disposal of modern civilization for their eradication. The currently applied model of production and consumption significantly increases the burden on the environment, and economic progress does not automatically entail social progress.

Over the past 20 years, the concept of sustainable development in Russia and the world was seen mainly in the environmental plane. Instead, the environment and development are not the two separate areas, rather the two aspects of the same agenda. The need is to work out an integrated approach to policy-making for sustainable development that will account for environmental and social costs of economic growth. We need a new development economics able to ensure the growth of the well-being of society without any additional burden on the environment sometimes called “ecologonomics” by experts.

Despite the recent advances of the Russian Federation in achieving the Millennium Development Goals, particularly in such areas as poverty reduction, access to education, reducing child and maternal mortality, combating HIV / AIDS, as well as strengthening the role of Russia as an international donor, there are many challenges that remain to be addressed both in the field of environmental protection and a social sector.

For the Russian Federation as a global ecological donor that possesses one fifth of the world's forests, significant water and other natural resources, the issues of ensuring country’s own economic development and the growth of the well-being of its citizens are being addressed not only in the interests of both present and future generations of Russians, but of all the mankind.

The country needs a new concept of ecological and economic development based on improving the energy efficiency of the economy and productivity, without extra burden on natural resources and the climate system. This growth is expected to minimize the associated environmental and social costs.

Russia occupies a unique position in the world, as a global provider of energy making its contribution to global energy security. The programmes to improve energy efficiency and environmental economics, resource conservation, and development of alternative energy adopted in the Russian Federation over the past decade are in line with modern approaches to building a "green" economy and, at the same time, they take into account the national features of the country. The targets of the modern development programmes cover the period from 2020 to 2030. Achieving these targets is a priority of the state policy. In the context of the "green" economy, along with the objectives of the modernization of the economy of the Russian Federation, also relevant are the issues of the elimination of the past environmental damage, waste reduction and recycling, as well as the development of environmental educa-

tion and awareness, formation of ecological culture in the society, the promotion of a "green" course.

Today we see the signs of higher social and environmental responsibility. Virtually all of the major infrastructure projects are managed in accordance with international standards for the protection of environment. One example is the preparation of the XXII Olympic Winter Games in Sochi in 2014. The state will improve the system of incentives for doing business in compliance with the principles of sustainable development. The citizens are seen as being more active and participative in the formulation and implementation of national environmental policy.

On this basis, it can be asserted that the Russian Federation is moving in the direction of sustainable development. This movement, of course, has its own features and may differ from the approaches of other countries that are in the process of implementing the principles of sustainable development.

The advantage of Russia in the process of building a new economy based on the principles of sustainable development is the health care and social welfare systems that are in the process of upgrade, technological upgrade of the manufacturing sector, the introduction of energy efficient technologies, a high level of education of the population, cultural and scientific heritage. This provides a basis for economic transformation and a comprehensive realization of human potential in the country, and the foundation for sustainable development, ensuring social justice, economic stability and environmental protection.

APPENDICES

Appendix 1

The official list of indicators for Millennium Development Goals (valid from January 15, 2008)

Millennium Development Goals	
Goals and Targets (from the Millennium Declaration)	**Indicators for monitoring progress**
Goal 1: Eradicate extreme poverty and hunger	
Target 1.A: Halve, between 1990-2015, proportion of people whose income is less than $ 1 a day	1.1. Proportion of population below $1 (1993 PPP) per day. 1.2. Poverty gap ratio [incidence x depth of poverty]. 1.3. Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4. Growth of GDP per worker. 1.5. Employment-to-population ratio. 1.6. Proportion of employed people living below $ 1 (PPP) per day. 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990-2015, the proportion of people who suffer from hunger	1.8. Prevalence of underweight children under-five years of age. 1.9. Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will complete a full course of primary schooling	2.1. Net enrolment ratio in primary education. 2.2. Proportion of pupils starting grade 1 who reach last grade of primary school. 2.3. Literacy rate of 15-24 year-olds, women and men
Goal 3: Promote gender equality and empower women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1. Ratios of girls to boys in primary, secondary and tertiary education. 3.2. Share of women in wage employment in the non-agricultural sector. 3.3. Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4.A: Reduce by two thirds, between 1990-2015, the under-five mortality rate	4.1. Under-five mortality rate. 4.2. Infant mortality rate. 4.3. Proportion of 1 year-old children immunised against measles
Goal 5: Improve maternal health	

Target 5.A: Reduce by three quarters, between 1990-2015, the maternal mortality rate	5.1. Maternal mortality ratio. 5.2. Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3. Contraceptive prevalence rate. 5.4. Adolescent birth rate. 5.5. Antenatal care coverage (at least one visit and at least four visits). 5.6. Unmet need for family planning
Goal 6: Combat HIV / AIDS, malaria and other diseases	
Target 6.A: Have halted by 2015 the spread of HIV / AIDS, and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15-24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5. Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6. Incidence and death rates associated with malaria. 6.7. Proportion of children under 5 sleeping under insecticide-treated bednets. 6.8. Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs. 6.9. Incidence, prevalence and death rates associated with tuberculosis. 6.10. Proportion of tuberculosis cases detected and cured under directly observed treatment short course

Goal 7: Ensure environmental sustainability	
Target 7A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	7.1. Proportion of land area covered by forest. 7.2. CO2 emissions, total, per capita and per $1 GDP (PPP). 7.3. Consumption of ozone-depleting substances. 7.4. Proportion of fish stocks within safe biological limits
Target 7B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.5. Proportion of total water resources used. 7.6. Proportion of terrestrial and marine areas protected. 7.7. Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8. Proportion of population using an improved drinking water source. 7.9. Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10. Proportion of urban population living in slums
Goal 8: Develop a global partnership for development	
Target 8.A: Develop further an open, rule-based, predictable and non-discriminatory trading and financial system. Includes a commitment to good governance, development and poverty reduction - both nationally and internationally. Target 8.B: Address the special needs of the least developed countries. Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction. Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly).	*Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.* <u>Official development assistance (ODA)</u> 8.1. Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income. 8.2. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation). 8.3. Proportion of bilateral official development assistance of OECD/DAC donors that is untied. 8.4. ODA received in landlocked developing countries as a proportion of their gross national incomes. 8.5. ODA received in small island developing States as a proportion of their gross national incomes. <u>Market access</u> 8.6. Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty. 8.7. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries. 8.8. Agricultural support estimate for OECD countries as a percentage of their gross domestic product. 8.9. Proportion of ODA provided to help build trade capacity.

Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt sustainability 8.10. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative). 8.11. Debt relief committed under HIPC and MDRI Initiatives. 8.12. Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13. Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14. Fixed telephone lines per 100 inhabitants. 8.15. Mobile cellular subscriptions per 100 inhabitants. 8.16. Internet users per 100 inhabitants

The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 heads of State and Government, in September 2000 (http://www.un.org/millennium/declaration/ares552e.htm) and from further agreement by member states at the 2005 World Summit (Resolution adopted by the General Assembly - A/RES/60/1, http://www.un.org/Docs/journal/asp/ws.asp?m=A/RES/60/1).

The goals and targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries "to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty".

Source: UN http://mdgs.un.org/unsd/mdg/Home.aspx.

Appendix 2

MDGs adapted for Russia

Goal 1. **Reduce poverty and eradicate hunger**

1. Halve by 2015 the general poverty level and eradicate extreme poverty among the non-marginal groups of the population.
2. Provide access to food for the poor.

Goal 2. Increase access to education

3. Involve vulnerable groups of the population in education and socialization.
4. Ensure participation in pre-school education of children from low-income families and children residing in rural areas.
5. Reduce the gap in funding and access to general secondary and primary vocational education across and within regions.
6. Update the content of general secondary education towards developing practical skills and application of knowledge.
7. Improve compliance of vocational education with the modern economic environment and labour market requirements.

Goal 3. Ensure gender equality and improve the situation of women

8. Eliminate gender inequality in primary and secondary education and at all levels of education by 2015.
9. Ensure equal access to political institutions for women and men.
10. Eliminate discriminatory practices in labour and employment.
11. Create effective mechanisms for preventing violence against women.
12. Reduce the impact of unfavourable socio-economic factors on health and life expectancy, especially males.

Goals 4 and 5. Reduce maternal mortality and mortality among children under five

13. Increase life expectancy and reduce mortality from major causes.
14. Promote changeover in society to a healthier life style.
15. Reduce the mortality rate of children under five by at least 50% by 2015, as compared with 1990 (from 21.5 to 11 per 1000).
16. Reduce maternal mortality by at least 50% during 1990-2015

Goal 6. Combat HIV / AIDS, tuberculosis, and other diseases

17 Halt and begin to reverse the spread of HIV/AIDS.
18. Halt the spread and significantly reduce incidence of tuberculosis (TB) and other socially-based infectious diseases.

Goal 7. Ensure environmental sustainability

19. Integrate the principles of sustainable development into country policies and programmes and prevent the loss of natural resources.
20. Provide the population with sustainable access to safe drinking water.
21. Improve people's living conditions.

Goal 8. Participation in global development partnership adequate to Russian national interests

22. Creation of favourable international conditions for elimination of internal obstacles to human capital development and achievement of the MDGs in Russia.
23. Priority assistance by Russia to solution of global problems, whose manifestations inside Russia are particularly acute and damaging.
24. Gradual build-up of Russia's contribution to international development programmes as a donor state.

Appendix 3

The Ten Principles of the UN Global Compact

The UN Global Compact's ten principles in the areas of human rights, labour, the environment and anti-corruption enjoy universal consensus and are derived from the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, Rio de Janeiro Declaration on Environment and Development, the United Nations Convention against Corruption.

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and;

Principle 2: Businesses should make sure that they are not complicit in human rights abuses.

Labour relations

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour;

Principle 5: Businesses should uphold the effective abolition of child labour;

Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Appendix 4

The principles of sustainable development of indigenous peoples of the North
(in accordance with the Concept of Sustainable Development of Indigenous Peoples of the North, Siberia and Far East of the Russian Federation, approved by the RF Government Decree No.132-r , dated February 4, 2009)

The principles of sustainable development of indigenous peoples of the North include:

- guarantee of rights of indigenous peoples in accordance with the Constitution of the Russian Federation, the generally accepted principles and norms of international law and the international treaties of the Russian Federation; the wholistic approach to solving the problems of socio-economic, ethnic and cultural development of small-numbered indigenous peoples of the North;
- coordination of actions of federal and local governments over the matters of socio-economic and ethnic and cultural development of indigenous peoples of the North;
- ensuring the effective participation of small-numbered peoples in achieving their sustainable development goals;
- recognition of the value of land, other natural resources, including biological, and well-being of the environment as the basis of the traditional way of life and traditional economic activities of the indigenous peoples of the North;
- rational use of land and other natural resources in the areas traditionally inhabited by indigenous people and used for traditional economic activities;
- recognition of the rights of indigenous peoples of the North to priority access to fishing and hunting areas, biological resources in the areas traditionally inhabited by indigenous people and used for traditional economic activities;
- the need for the participation of representatives and associations of indigenous peoples' organizations in decision-making on the issues that affect their rights and interests in the development of natural resources in the areas traditionally inhabited by indigenous people and used for traditional economic activities, the need to assess cultural, environmental and social implications of proposed projects and activities in the areas traditionally inhabited by indigenous people and used for traditional economic activities of indigenous peoples of the North;
- compensation of the past damage to traditional environment and traditional life-style and health of the small numbered peoples of the North.

Appendix 5

On the Interagency Working Group of Experts on the participation of the Russian Federation in the United Nations Conference on Sustainable Development in 2012

The Interagency Expert Group on ensuring the participation of the Russian Federation to the United Nations Conference on Sustainable Development in 2012 was formed in 2011 by the Order of the President of the Russian Federation to work out the stand of the Russian Federation to the Conference and the preparation of the national report.

The group included representatives of the State Duma of the Federal Assembly of the Russian Federation, the Ministry of Health and Social Development of the Russian Federation, the Ministry

of Foreign Affairs of the Russian Federation, the Ministry of Education and Science of the Russian Federation, the Ministry of Natural Resources and Environment of the Russian Federation, the Ministry of Industry and Trade of the Russian Federation, the Ministry of Agriculture of the Russian Federation, the Ministry of Economic Development of the Russian Federation, the Ministry of Energy of the Russian Federation, the Federal Forestry Agency, the Federal Service for Hydrometeorology and Environmental Monitoring, Russian Academy of Sciences, National Research University "Higher School of Economics", the Public Chamber of the Russian Federation, the Chamber of Commerce and Industry of the Russian Federation, OAO "Gazprom".

The structure and content of this report have been developed by the Group based on "Rio + 20" and Russian priorities of sustainable development. This report draws upon the research paper "Assessment of Implementation of the Climate Doctrine of the Russian Federation and the Principles of Sustainable Development. The Key Challenges, Threats and Opportunities", commissioned by the Administration of the President of the Russian Federation in 2011, as well as materials submitted by federal bodies of executive power on implementing the principles of sustainable development in Russia between 1992-2011, various estimates by domestic and foreign experts, international organizations, the materials from not-for-profit organizations, state statistics summaries. Some information has been updated as of 2012.

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ABBREIATIONS

CCI	Chamber of Commerce and Industry
CSR	Corporate Social Responsibility
FTP	Federal Targeted Programme
GDP	Gross Domestic Product
GFCS	Global Framework for Climate Services
HDI	Human Development Index
HPP	Hydro Power Plant
IDA	International Development Assistance
IEA	International Energy Agency
MDGs	Millennium Development Goals
NGO	Non-Government Organizations
NPP	Nuclear Power Plants
OECD	Organization for Economic Cooperation and Development
RAS	Russian Academy of Sciences
RES	Renewable Energy Sources
RGS	Russian Geographical Society
RUIE	Russian Union of Industrialists and Entrepreneurs
TPP	Thermal Power Plant
UN	United Nations Organization
UNDP	United Nations Development Programmes
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organization

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12. Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters (http://www.mchs.gov.ru).
13. Ministry of Agriculture of the Russian Federation (http://www.mcx.ru).
14. Ministry of Finance of the Russian Federation (http://www.minfin.ru).
15. Ministry of Economic Development of the Russian Federation (http://www.economy.gov.ru).
16. Ministry of Energy of the Russian Federation (http://www.minenergo.gov.ru).
17. Moscow City Centre for Prevention and Control of AIDS (http://www.spid.ru).
18. OAO "Gazprom" (http://www.gazprom.ru).
19. All-Russian non-governmental organization "Green Patrol". (http://www.greenpatrol.ru/ecoreiting/).
20. Public Chamber of the Russian Federation (http://www.oprf.ru).
21. Organizing Committee of the XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in Sochi (http://www.sochi2014.com).
22. United Nations Organization (http://www.un.org).
23. United Nations Development Programme in the Russian Federation (http://www.undp.ru).
24. UN Framework Convention on Climate Change (http://www.unfccc.int).
25. Russian Energy Agency (http://www.rosenergo.gov.ru).
26. Russian Union of Industrialists and Entrepreneurs (http://eng.rspp.ru).
27. Mendeleev University of Chemical Technology of Russia (http://www.muctr.ru).
28. Russian Geographical Society (http://www.rgo.ru).
29. United Nations Statistics Division (http://unstats.un.org).
30. Federal Labour and Employment Service (http://www.rostrud.ru).
31. Federal State Statistics Service (http://www.gks.ru).
32. Federal Service for Hydrometeorology *and* Environmental Monitoring. (http://www.meteorf.ru).
33. Federal Water Resources Agency (http://voda.mnr.gov.ru).
34. Federal Forestry Agency (http://www.rosleshoz.ru).
35. Centre for the Efficient Use of Energy (http://www.cenef.ru).