

**Accounts Chamber
of the Russian Federation**

**AUDITING CLIMATE
CHANGE**

**MATERIALS TO “ADAPTATION AUDIT”
SEMINAR**

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MATERIALS TO “ADAPTATION AUDIT” SEMINAR

Today’s seminar shows our special attention to the issue of auditing climate change adaptation and also confirms the need to exchange our experience and knowledge in this area.

The current problem of the man-induced climate change, that has been especially explicit over the last 15 years, has a global nature. Local consequences, namely heat waves, dry spells, storms, floods, depend on high concentration of greenhouse gases in the atmosphere as such, but not only in the sky above this or that country.

Awareness of the need to take joint steps is very important now.

On December 17, 2009 Dmitry Medvedev, the President of Russia, adopted the Climatic Doctrine of the Russian Federation. This Climatic Doctrine is a fundamental document for the state policy of Russia related to the issues of possible global and regional climate change and its consequences.

The above factors determined the need to account climate change as one of the key long-term safety factors of the Russian Federation and posed the problem of global climate change as one of the top priorities for the Russian Federation policy.

The Accounts Chamber of the Russian Federation audits climate change and considers issues of auditing adaptation.

In our view, the target of the audit of adaptation to the climate change must be assessment of efficiency of the climatic policy pursued by the Government of the Russian Federation. In order to achieve this goal the following items shall be audited:

- special-purpose programmed approved by the Government Decree of the Russian Federation and aimed at investigation climate change in Russia;
- execution of legal foundations and mechanisms of government regulations aimed at mitigation of anthropogenic impact on global climate system.

In 2009 the Accounts Chamber of the Russian Federation audited efficiency of the public spending allocated for ensuring compliance to Kyoto Protocol

commitments under the UN Framework Convention on Climate Change. The following issues were considered during this audit:

1. Analysis of the documents adopted for meeting commitments of the Russian Federation under the Kyoto Protocol and the UN Framework Convention on Climate Change.

2. Compliance with the regulatory acts of the Russian Federation for implementing commitments of the Russian Federation under the Kyoto Protocol (industrial regulation of greenhouse gas emissions). Measures aimed at increasing energy efficiency in relevant sectors of national economy. Elaboration of the strategy to prevent adverse climate changes and their negative effects for the period after 2012.

3. Analysis of the use of funds, including federal budget funds, allocated for meeting the commitments of the Russian Federation on preventive measures to adapt the economy to climate changes.

4. Efficiency use of federal budget funds, allocated by federal executive bodies in the specific areas of activities for meeting the commitments of the Russian Federation under the UN Framework Convention on Climate Change and the Kyoto Protocol.

The audited bodies are executive bodies, public authorities on ecology and natural resources use.

The subject of climate change audit comprises the following: regulations and other documents adopted in the sphere of climate change; information received by the Accounts Chamber by request from the corresponding ministries, agencies and other organizations; financial reports, statistical and other data and indicators relevant to participation of the Russian Federation in the Kyoto Protocol and the UN Framework Convention on Climate Change; reports on special purpose audits and revisions; opinion on draft budget for the following year; data of the operational control; reporting and statistical materials on the activities of the subordinated entities.

The audit held by the Accounts Chamber of Russia for the year 2009 resulted in the following conclusions.

In the Russian Federation major part of the emissions covered by the Kyoto protocol, i.e. over 80 percent is generated in the so-called "Energy" sector. This includes all the emissions related to production, storage, transportation and use of fossil fuels – coal, oil, gas, and their conversion products, plus the wastage and leakage of fuel. Next come emissions related to agriculture (cattle breeding and agricultural soils), then emissions generated by industrial technologies and utilization of industrial products. The situation in the agricultural sector attracts attention, as emissions have remained stable here since 1998. This is due to stable cattle stock, which is a major source of methane, and high price of mineral fertilizers which restricts their application and thus the emissions from agricultural soils. (See figure 1).

Due to the production growth, emissions have been going up since 1999. In 2006, as a result of increased consumption of energy resources, the total emissions in the Russian Federation was 65.8% compared to the reference indicator of 1990. According to rough expert estimates, increase in emissions also continued in 2008, while in 2009 the emissions dropped due to the economic crunch.

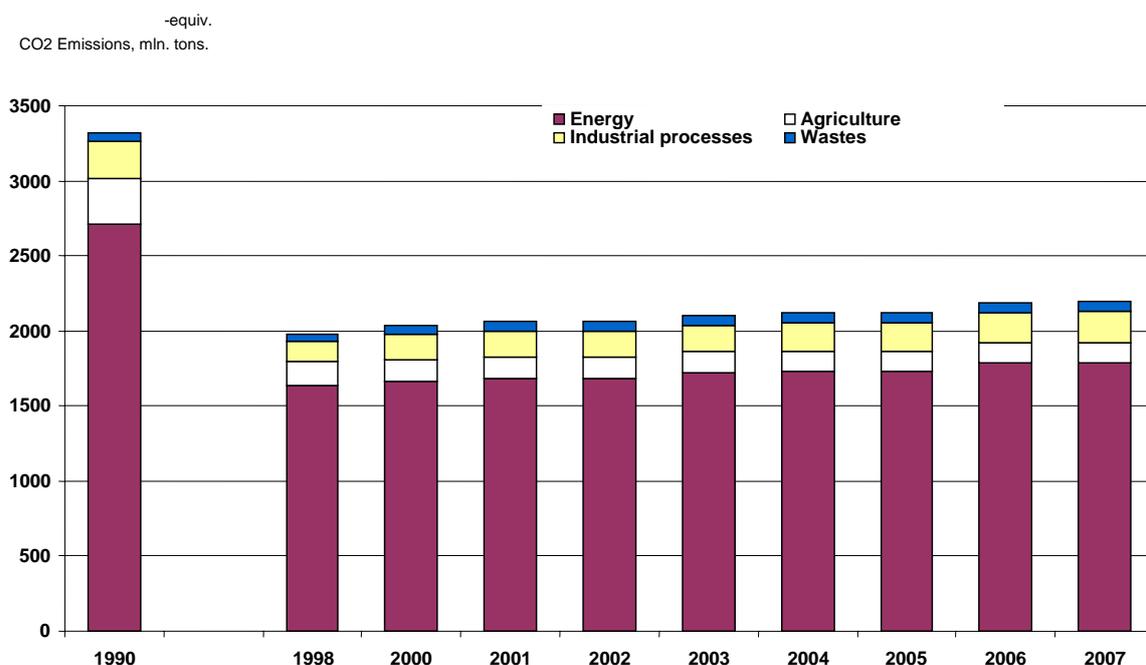


Figure 1.

We'd like to emphasize that renovation of production capacities in the Russian Federation, introduction of advanced efficient technologies in energy generation and consumption can limit greenhouse gas emissions to the reference level until 2020. (See figure 2)

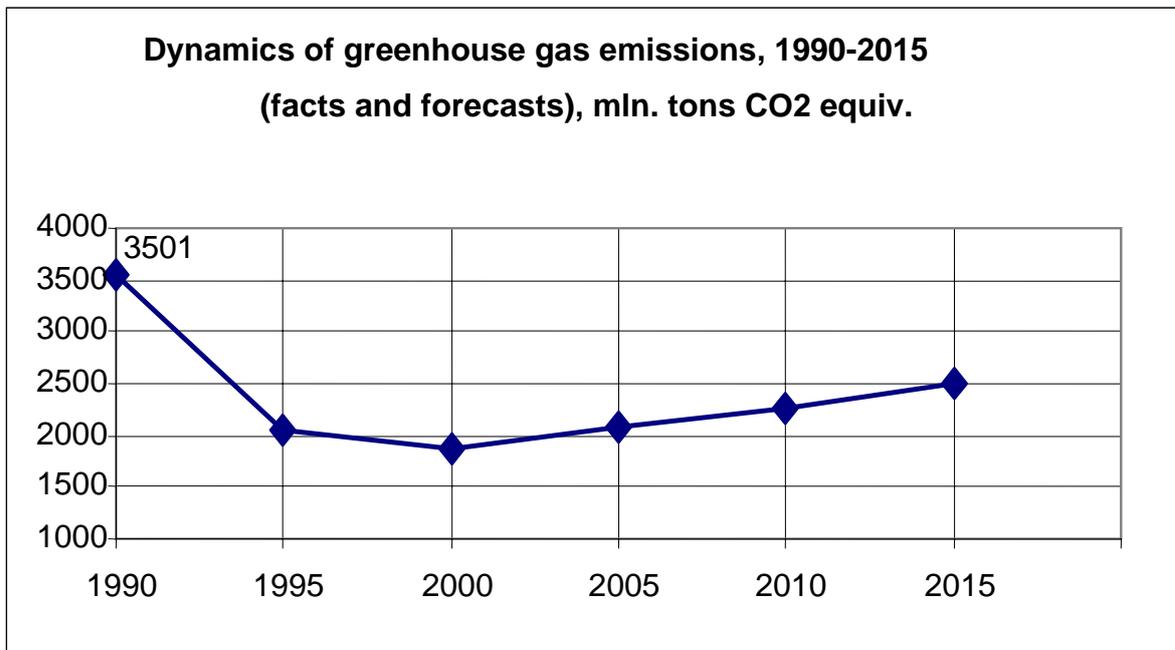


Figure 2.

On January 1, 2008 started the first period of Kyoto commitments implementation.

According to the commitments, all the member countries need to develop their own legal frameworks for regulation of greenhouse gas emissions, including those supporting the national carbon markets. Following ratification of the Kyoto Protocol, Russia adopted relevant documents to meet the commitments.

In 2006 there was created a national system for estimating man-induced emissions per sources and their absorption by greenhouse gas sinks. Operation of the estimation system as well as submission of the National Cadastre in line with the Kyoto Protocol was entrusted to an executive body (Hydrometeorology and Environmental Monitoring Agency of the Russian Federation). The National

Cadastre of Man-Induced Greenhouse gas Emissions was submitted annually to the Secretariat of the UN Climate Change Convention.

Also it was determined that the estimation system was funded from the federal budget (see table 1).

Table 1.

Commitments of the Russian Federation under the Kyoto Protocol:
<i>1. Stabilization of man-induced greenhouse gas emissions by 2000 on the level of 1990.</i>
<i>2. Development, regular update, publication of the National Cadastre of man-induced emissions per sources and their absorption by greenhouse gas sinks.</i>
<i>3. Definition, execution, publication and regular update of national and regional programmes, describing measures on reduction of greenhouse gas emissions.</i>
<i>4. Submission of the National Communications to the Conference of the Parties via the UN FCCC Secretariat on the regular basis (every three years).</i>

In the sphere of emissions trading the concept of reserving certain part of emissions for the period of the commitments validity (2008-2012 inclusively) was adopted. This means that by the beginning of 2013 one can sell either all emissions available for trading registered in the latest inventory (probably, that of 2007), or 10 per cent of the total emissions of the country in 1990 (whichever is the greater).

In fact, this approach allowed has selling as many emissions as permitted by the economical development of the country and global market environment since 2008.

The crucial importance is that all the emissions (except for the so-called "forest" emissions and emissions of the international projects) can be accumulated and shifted to the next period of commitments. This allows regulation of the Russian market by limiting the offered emissions and their accumulating in the next period of 2013 – 2017, when the aggregate emissions of the Russian Federation can potentially exceed the limit set by the Kyoto Protocol.

Most Russian experts agree that the post-ratification implementation of the Kyoto protocol in Russia was quite smooth. As far as subsequent agreements are concerned, they could entail commitments on further reduction of greenhouse gas emissions in future periods. This will require reduction of fossil fuels consumption, in particular coal, oil and gas.

During the G8 summit held in Italy in July 2009, Russia declared in its statement that greenhouse gas emissions in the Russian Federation by 2020 will not exceed 85-90% compared to the level of 1990, while by 2050 the emissions will not exceed 50% compared to the level of 1990. In particular, it was stated that Russia will reduce the emissions over 30 years (from 1990 to 2020) by 10-15 percent, or by 30 billion tons of carbon.

The expected climate changes shall by all means influence life of people, animal and vegetal life in every region, and in certain regions they will become a significant threat for well-being of people and for sustainable development.

One of the key tasks for Russia in terms of climate change is development and implementation of long-term measures on adaptation to climate changes. In this respect the following risk assessments become the main aspects of development and planning the audit on climate change adaptation:

- vulnerabilities to adverse effects of climate changes and risks of relevant losses;
- possible benefits from positive climate changes;
- investment capacity, efficiency (including economic efficiency) and practical feasibility of corresponding adaptation measures;
- adaptation potential with regard to the economic, social and other significant factors relevant for the state, sectors of economy, population and separate social groups.

One of the priorities for Russia in terms of climate change is the *anticipatory adaptation* to the consequences of climatic changes.

For this purpose, it is advisable to consider efficiency of measures in audit framework ensuring the following:

- energy efficiency improvement in every sector of national economy;
- promotion of renewable and alternative energy sources;
- reduction in market imbalance, implementation of financial and fiscal policy measures to encourage reduction of antropogent greenhouse gas emissions;
- protection and quality of greenhouse gas sinks and accumulators, including regional forest management, tree-planting and forest regeneration on regular basis.

When planning audits of climate change adaptation it's important to define items of the audit programme, main of which may comprise:

- analysis and evaluation of past and present state of climatic system;
- assessment of anthropogenic impact factors upon the climate;
- forecasting changes in climate and their potential impact upon quality of life in the Russian Federation and other regions of the globe;
- assessing the degree of safety and vulnerability of ecological systems, economy, population, governmental institutions and state infrastructure in relation to climate change and current possibilities of adaptation thereto;
- assessment of the possibilities for mitigation of anthropogenic impact upon climate;
- assessment of negative and positive effects of expected climate change.

The following can be mentioned among negative effects of climate change in the Russian Federation:

- increased health risks (infection rate and fatality rate) among certain social groups of population;
- increased frequency, intensity and duration of dry spells in some regions, increased extreme precipitations, floods, excessive water saturation harmful for agricultural sector in other regions;
- increased fire danger in forest areas;

- degradation of permafrost in northern regions detrimental to facilities and communications;
- violation of environmental balance, including replacement of species;
- spreading infectious and parasitic diseases;
- increased consumption of electricity on air conditioning in summer period for majority of the populated areas.

The following can be mentioned among possible positive effects of climate change in the Russian Federation, these factors present a significant potential for efficient industrial and regional economic development:

- reduced energy consumption in heating period;
- improved ice conditions and thus improved cargo transportation conditions in arctic seas, facilitated access to and development of arctic shelf blocks;
- improved structure and expanded regions of crop production, increased efficiency of cattle breeding (subject to a number of additional conditions and specific measures);
- increased productivity of boreal forest.

These are the issues related to climate change that need to be considered when planning adaptation audits.

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