

Environmental Policy and Regulation in RUSSIA

THE IMPLEMENTATION CHALLENGE



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FOREWORD

The OECD's cooperation with Russia in the field of environment started in the mid 1990s and aims to assist Russia in integrating environmental considerations into the economic reform process and to promote dialogue between OECD member countries and Russia on environmental policy issues of mutual interest. The development of the Environmental Performance Review of Russia, carried out by the OECD Secretariat in cooperation with UNECE in 1999, constituted a milestone of cooperation. The Review was the first comprehensive and independent assessment of environmental conditions and policies in Russia. Subsequently, analyses of specific instruments of environmental policy, most importantly pollution and natural resource charges, were conducted.

The current report continues this series of policy analyses and provides an update of the developments in environmental policies and regulation, as well as government strategies for ensuring compliance with regulatory requirements in Russia since 2000. The study was mainly prepared on the basis of literature review by the OECD Secretariat with a substantial support from Ms. Olga Dubovik, Professor at the Russian Institute for Governance and Law. Valuable input into the development of the study were provided by officials from the Russian Federal Service for Environmental, Industrial and Nuclear Supervision (*Rostekhnadzor*), namely Ms. Victoria Sapozhnikova, Mr. Andrei Pechkurov, Mr. Evghenii Wystrobets and Mr. Yurii Planonov.

Factual information and expert opinions were also collected during several workshops and interviews with stakeholders. Most importantly, an International Conference "Strategies for Improving Environmental Compliance Assurance in Russia: Policy and Practical Issues" was organised on 19-20 October 2005 in Moscow by the OECD Secretariat and *Rostekhnadzor*. The objective of this event was to discuss latest developments of environmental management in Russia and take stock of opportunities and obstacles to improving this system within the framework of the administrative reform and in light of good international practice.

The views expressed in this report are those of authors and do not necessarily reflect those of the Russian authorities, the OECD or its member countries.

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EXECUTIVE SUMMARY

Establishing a modern environmental management system that would match new economic and social realities was one of the challenges that Russia faced during the transition period. In order to address this challenge, important efforts were dedicated to the development of legal and institutional frameworks. Environmental laws and regulations now address most of the priority environmental issues. Government agencies responsible for environmental policy design, regulation, and compliance act at both federal and sub-national levels, and environmental policy implementation is increasingly decentralised. During the last five years, innovative policy instruments (such as industry rating, environmental management systems and corporate reporting) have been adopted or further promoted, and traditional instruments (*e.g.* environmental quality standards, permitting, and environmental liability) have been under reform.

However, environmental policies and regulations continue to suffer from an important implementation gap. A rapid expansion of the regulatory framework resulted in a general loss of coherence. Although the government is taking action to improve the quality of regulations, many unfeasible or unenforceable rules are still in force. Economic instruments remained ineffective in changing environmental behaviour. The compliance assurance strategies continued to rely on the “check and punish” approach. While regulatory requirements are contradictory or sometimes unrealistic, the emphasis placed on “compliance with rules” hinders the acceptance of regulation and lowers credibility of the government. Furthermore, environmental authorities have been subject to multiple reorganisations and ever-increasing fragmentation since the late 1990s that sometimes brought them to the edge of institutional paralysis.

There is a need for further reform of environmental policies, laws, institutions, and compliance assurance strategies in the Russian Federation. Priority should be given to the following actions:

- i) Overcome the declarative character and fragmentation of environmental policy making and reform policy instruments. In procedural terms, authorities need to increase the transparency, stakeholder involvement, and accountability of the policy-making process;
- ii) Pursue the “better regulation” process in the environment field with a view of making laws and regulations realistic, more performance-based, enforceable, coherent, and simple. To this end, an effective use of the Regulatory Impact Analysis should be ensured;
- iii) Design a modern environmental compliance assurance system based on a better knowledge of the regulatees’ profile, particularly factors that prevent environmental compliance. In conjunction with a higher transparency and accountability of environmental authorities, the legal framework should be amended to allow for an unimpeded access to facilities, when necessary, including a risk-based frequency of inspection and unannounced on-site visits;
- iv) Fully implement the key principles of environmental federalism and strengthen the institutional framework for environmental management;
- v) Encourage meaningful public participation and empower stakeholders to act as partners of governmental authorities.

The current report supports these conclusions and recommendations with background information that covers developments in the Russian system of environmental management since the late 1990s.

ACRONYMS

BAT	Best Available Technique
CFD	Compensation for Damages
EIA	Environmental Impact Assessment
ELV	Emission (Effluent) Limit Value
EMS	Environmental Management System
EQS	Environmental Quality Standard
EU	European Union
IPPC	Integrated Pollution Prevention and Control
MAC	Maximum Allowable Concentration
MEA	Multilateral Environmental Agreement
NGO	Non-governmental Organization
OECD	Organisation for Economic Cooperation and Development
RIA	Regulatory Impact Analysis
SME	Small and Medium-sized Enterprises

CHAPTER 1: OBJECTIVES AND INSTRUMENTS OF ENVIRONMENTAL POLICY

1.1. Evolution of environmental management in Russia

In Russia, the “environmental” functions of governmental authorities cover both natural resource management and prevention of environmental quality degradation. Official documents proclaim that these functions are aimed at striking a balance between environmental and economic interests and guaranteeing environmental rights and interests of individuals and companies. While such an overall goal, in theory, is politically appealing, the environmental management system in Russia has not yet sufficiently evolved to find effective mechanisms for ensuring its achievement.

The evolution of environmental management in Russia had several distinct phases. In the mid and late 1990s, regulatory and institutional frameworks rapidly expanded. At that stage, environmental policies were largely guided by the international environmental agenda, most importantly by the outcomes of the Rio Summit and the emergence of sustainable development. During the same period, the activism of the non-governmental sector was encouraged and NGOs were actively involved in environmental planning.

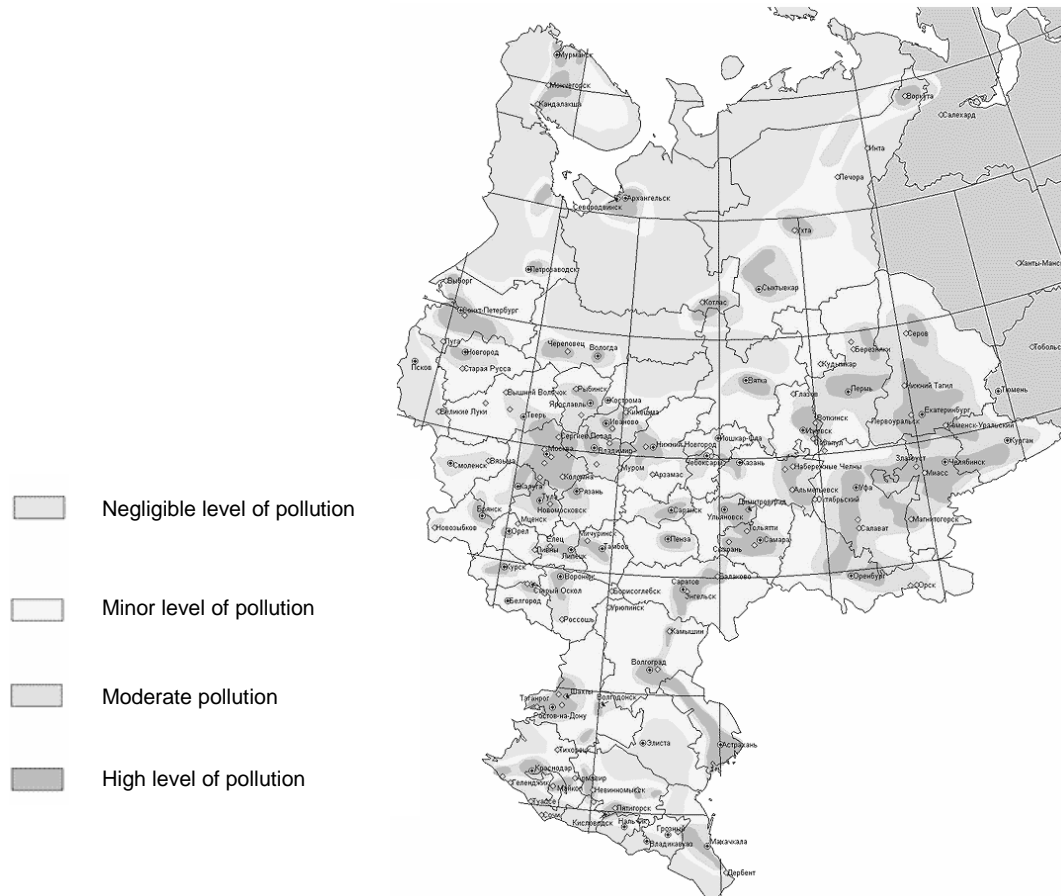
In 2000-2004, the need for economic revival totally eclipsed environmental goals. Although authorities often denied this fact, experts and public opinion were quite concerned about the disregard for environmental matters. Such concerns stemmed from the government’s focus on large-scale use of natural resources and the commodity-based character of the economy, the dismantling of the State Committee for Ecology and its sub-national units, the decision to import radioactive waste, and other examples. Since 2004, this trend has somehow weakened. For instance, the broad-based administrative reform included actions to strengthen environmental authorities, especially their enforcement arms. However, economic and environmental goals still have to be reconciled.

1.2. Environmental policy objectives and obstacles to their achievement

For a long time, environmental planning in Russia was solely based on general principles and stipulations of environmental law rather than on quantitative and time-bound policy targets, established through sound policy analysis and stakeholder consultations. This model of environmental management could not ensure sufficient accountability for lack of progress thus failing to bring about environmental improvements.

As a result, Russia is faced with significant environmental challenges. Their magnitude can be illustrated by the fact that about 15 percent of the country’s territory (Figure 1) suffers from exposure to high levels of ambient pollution. In many industrial centres (*e.g.* Dzerzhinsk, Irkutsk, Kemerovo, Krasnoyarsk, Novokuznetsk, Norilsk, and Cherepovtsy), the rates of morbidity and mortality exceed 1.5-3 times the national average.

Figure 1. Extent of pollution in the European part of Russia



Source: "Entrepreneurship and Ecology" Portal, http://www.businessseco.ru/content/document_r_40C62B1C-07C6-434F-8291-42FB91440F01.html (October 2006).

A number of factors further worsen environmental conditions in Russia, including:

- Obsolete technologies of industrial production and ageing infrastructure of most industries;
- A sharp increase in the motor vehicle fleet and related environmental concerns (in large cities, motor vehicles account for up to 90 percent of hazardous emissions, and approximately 38 mln people are exposed to excessive noise from transport);
- The growing quantity of untreated wastewater effluents and air emissions (*e.g.* in 2004, only 10.6 percent of the total volume of wastewater were treated to levels that respected the regulatory requirements) resulting from the overloading or lack of treatment plants;
- An increased generation of industrial and municipal waste (for example, waste accounts for 80 percent of extracted ores).

Also, many systemic problems hinder environmental management in Russia, such as low priority of environmental issues on the political agenda, at all levels of governance; the high share of the shadow economy in the use of natural resources; and poor business management.

The population has been increasingly concerned about the growing level of environmental pollution. According to the opinion polls, more than 83 percent of the country's adult population are concerned about the environmental situation; more than 55 percent of respondents assess the environmental situation in their places of residence as "unfavourable", "poor", or "critical".

Economic losses from illegal use of natural resources and environmental pollution are also high. For example, in 2005, losses from illegal logging alone amounted to Rub 4.7 billion. The newly-introduced aerospace monitoring of forests has shown that the volume of illegal logging in Russia as a whole accounts for 10-15 percent of its total volume, *i.e.* approximately 19 mln m³ a year.

Clearer understanding of environmental conditions and pressures imposed a certain shift away from the vagueness of environmental policy making. This shift was marked by the Environmental Doctrine of 2002 that, while not yet setting concrete policy targets, identifies specific policy objectives, such as:

- Eradication of past pollution "hot spots" and promotion of environmentally-friendly territorial planning;
- Reduction in the resource and energy intensity of production, as well as a "greening" of the economy, with a view to increasing the competitiveness of Russia's output in the global market;
- Biodiversity conservation and rehabilitation of distressed territories.

The following policy interventions are highlighted by the Doctrine:

- Reforming the system of environmental quality standards and emission limit values, and improving the procedures of environmental assessment of business activities;
- Phasing in process standards (best available techniques);
- Developing tools for environmental zoning;
- Providing economic incentives to improve the environmental performance of industries;
- Developing an efficient system of financial penalties for environmental non-compliance;
- Securing and efficiently using public finance for environmental projects.

There is a unanimous opinion of various stakeholders that progress in implementing the Environmental Doctrine has been slow. This issue was discussed at a national conference held in Moscow in November 2005. The Conference brought together representatives of the legislative and executive authorities of the Russian Federation, sub-national and local governments, Russian and international NGOs, as well as leaders of large companies, researchers and experts. As a result of discussions, a number of obstacles to a higher performance of environmental management in Russia were identified, including:

- Lack of a strong single federal environmental authority, fragmentation of the policy-making process, and poor environmental governance;

- Lack of appropriate environmental criteria, indicators and methodologies for assessing the effectiveness and efficiency of federal, regional, and departmental earmarked programmes;
- Missing mechanisms of public participation in environmental assessment;
- Shortage of skilled staff and lack of an appropriate system for training environmental professionals.

In order to give impetus to implementation of the Doctrine, the following measures were proposed:

- Improve the institutional framework for environmental protection;
- Raise environmental awareness and public support for better environmental governance;
- Align current environmental regulation with international benchmarks;
- Provide public finance to address past pollution and implement investment projects with a significant environmental component;
- Reward environmentally responsible behaviour.

Similar conclusions were reached during an international workshop on environmental management in Russia that was conducted in October 2005 by the OECD in cooperation with the Russian environmental authorities. Furthermore, the outcomes of these two events largely correspond to the findings of the Environmental Performance Review of the Russian Federation, conducted by the OECD in 1999, and the 2004 World Bank report on the status and prospects for environmental management in Russia.

1.3. Major changes in the institutional framework

Reforming the system of environmental management in Russia appears somewhat difficult against the background of an extremely unstable institutional framework that is subject to numerous and contradictory changes. In recent years, environmental agencies have been repeatedly re-structured; powers have been delegated from one entity to another; leadership and vertical subordination have been changed. The executive environmental authorities were radically reorganized in 1994, 1996, 2000, and 2004. The government's constant search for an optimal vertical and horizontal configuration of environmental authorities often brought the system to the brink of paralysis. As a result, commitment to improve environmental policy and regulation has been low among managers at all levels.

The law-making segment is the most stable within the institutional framework. There is a wide range of actors involved in law making: the Federal Assembly¹, Russia's President, the government and line ministries, as well as similar actors in sub-national and local governments. Also, the Constitutional Court, the Supreme Court, and the Supreme Court of Arbitration have the right to initiate laws. Other stakeholders include lawyers, researchers, and practitioners who act as experts or provide feedback on the quality of the draft laws, etc. This diversity of authorities and stakeholders, generally, plays a positive role in balancing competing interests, although it might have contributed to the fragmentation and inconsistency of the legal framework, discussed in the following chapter.

¹ The Federal Assembly, Russia's parliament, is composed of two chambers – the State Duma and the Federation Council.

Unlike the law-making institutions, the executive branch of the government has gone through several major reorganisations since 1999. In 2000, most of the responsibility for environmental management was devolved to the *oblast* (sub-national) governments² without strengthening the federal-level capacity to coordinate environmental policy development and to ensure effective regulation. This change in responsibilities was accompanied by a decline in the overall number of staff, in particular those involved with inspection and enforcement. Relations between the centre and the regions remained unclear, particularly due to the fact that an additional administrative layer – the federal *okrugs* (regions) – has been added between the centre and the sub-national level. While there was a need and justification for change on the grounds of an exaggerated jurisdiction of the federal-level authorities, the process of reform was poorly implemented and increased the level of ambiguity in the distribution of functions between different administrative-territorial levels. Later on, their mandates were amended in 2004, in 2005 and again in 2006, with no clear understanding of how the environmental management system would evolve in the longer term. Thus, the issue of environmental federalism in Russia would require a more careful analysis and optimisation based on best international practice.

As concerns the clarification of mandates at the federal level, the administrative reform of 2004 pursued the goal of clearly separating policy making, regulatory and compliance monitoring, and service provision functions of government authorities in order to increase the effectiveness of government authorities while reducing the conflicts of interests that arise when these functions are combined. In this context, three types of executive bodies were instituted:

- **Federal ministries**, which are policy-making bodies. They conduct the problem analysis, development and evaluation of policies in their domains, as well as draft new legislation. Also they coordinate and monitor the activities of federal services and agencies within their jurisdiction. They are not authorized to perform enforcement functions, to manage state property or to provide services;
- **Federal services**, which are federal executive authorities vested with permitting, inspection and administrative enforcement functions, but are not authorized to develop primary legislation;
- **Federal agencies**, which can provide public services and manage state property, maintain various types of registers, but are not authorized to engage in regulatory development or perform any compliance assurance functions.

Today, the key authorities responsible for formulating and implementing the environmental policy and law at the federal level in Russia are the Ministry of Natural Resources (MNR) and the Federal Environmental, Industrial, and Nuclear Supervision Service (*Rostekhnadzor*, or RTN). The compliance assurance functions were delegated to two federal authorities: the RTN, accountable to the Prime-Minister, and the Federal Service for Supervision over Use of Natural Resources (*Rosprirodnadzor*) that is subordinated to the MNR. They supervise industrial impacts and natural resource use, respectively.

² As the World Bank (2004) noted, there was some doubt as to how much the changes in environmental management were in fact driven by a systematic decentralization program and how much there are motivated by a desire to downscale environmental management as a whole in the country. There certainly was the view that environmental protection was an obstacle to economic development and needed to be downplayed.

Following the administrative reform of 2004 some institutional stability of environmental authorities has been achieved and attempts to streamline their responsibilities and powers have been made. But there is little evidence that the reorganisation has achieved its aims as functions are not totally separated and regulators continue to be exposed to political pressure. The overlaps of functions and adversarial relations among various executive authorities have persisted and the level of institutional fragmentation has increased.

Poor cooperation between ministries (and their subordinate bodies) has continued to affect the robustness of the institutional framework for environmental management. Currently, many line ministries have environmentally-related functions, including: Ministry of Health and Social Development (including the Federal Agency for Health and Social Development and Federal Health and Social Development Supervision Service); Ministry of Economic Development and Trade (including the Federal State Statistics Service); Ministry of Industry and Energy and its subordinate bodies; Ministry of Agriculture and its subordinate bodies; Ministry for Civil Defence, Emergencies, and Natural Disaster Mitigation; and Ministry of Internal Affairs. To a certain degree, activities of all those federal bodies are planned and co-ordinated based on the Medium-term programme of social and economic development of the Russian Federation and its implementation action plan, developed by of the Government of the Russian Federation.

The introduction of performance-oriented budget planning³ inspires hopes that cross-sector coordination will improve. The budgetary reform includes setting national-level goals for the entire government and development of specific budget programmes for achieving these goals by the ministries. The programmes have to include measurable targets and supporting indicators to monitor the achievement of goals. The latter will become part of budget justification alongside the description of strategic goals, responsibilities and functions of each public authority, as well as reports on financial performance and fiscal discipline for previous years. Draft budget justifications will have to be assessed by legislators in addition to the Ministry of Finance. Although the performance-oriented approach is winning wider recognition both with governments of OECD countries and those of economies in transition, so far very few countries have been able to implement it fully. Because it leads to increased transparency, implementing this approach is a big challenge in a country that lacks the tradition of democracy and public accountability.

Within the institutional framework, law enforcement authorities and courts have been growing in importance and a trend has emerged of a revival of special law enforcement entities acting to ensure environmental law implementation, in particular, of environmental *militia* and environmental prosecutors' offices. Courts of arbitration and common law courts are becoming more active.

Finally, despite efforts to increase the transparency and integrity of environmental authorities, corruption among officials is still a concern. The forms of corruption vary significantly. In the environmental sector, cases are common where public (or municipal) officials combine their office with setting up, or serving at, business entities. For instance, the head of the Altai *okhotnadzor* [hunting supervision authority] combined his Director General position with being a shareholder in the firm which organized hunting. In Kemerovo Oblast, more than forty officials from an area office of the Federal Environmental, Industrial, and Nuclear Supervision Service were also employed at the entities under their supervision.

³ The Strategy of the Budget Process Reform for 2004–2006 was adopted by the Russian Government on April 15, 2004, and is entirely based on the approach of performance oriented and multiyear budgeting. The main aim of the Strategy is to ensure effective allocation and management of public finances, as well as to make public expenditures clear and transparent. The reform will be implemented at the federal, *oblast* and municipal levels.

1.4. Core instruments of environmental policy

Environmental management relies on a set of command-and-control, economic, information, and other types of instruments. This section discusses the core set of instruments used in Russia. Issues of compliance with regulatory requirements and law enforcement are discussed in a separate section of the report.

1.4.1. Environmental quality standards

Environmental quality standards (EQS) mandate the level of permissible pollution in order to protect human health and natural ecosystems. In Russia, the procedure of standard setting and approval involves competent environmental and sanitary authorities. Most standards are derived based on the assumption of zero risk for human health and apply to the quality of water, air, soil, and foodstuffs. Russia started creating hygiene standards in 1922 (at the beginning of the Soviet period) when the first three criteria pollutants were identified and regulated values for the working area were set. In 1925, there were as many as ten standards. In the 1940s, formulation of maximum allowable concentrations (MACs – see Box 1) started for chemical substances in ambient air, then in drinking water, fishing waters, soil, and foodstuffs. In addition to MACs, the so-called “tentatively safe exposure levels” (TSEL) are used as temporarily allowable concentrations. Their values are estimated, unlike the MACs that are determined experimentally.

Box 1. Types of air and water quality standards in Russia

Air quality standards determine allowable limits for hazardous substances both in the industrial and residential areas. There is a range of air quality standards:

- Maximum allowable concentration of hazardous substance in the working area⁴ air (MAC_{wa}) is a concentration which, with daily (except weekends) work of 8 hours a day or of other duration, but not longer than 41 hours a week, throughout the length of service should not cause a disease or any deviation in the state of health detected by modern research methods in the process of work or during remote periods of life of current or future generations.
- Maximum allowable concentration, maximum non-recurrent (MAC_{mnr}) is a concentration of a hazardous substance in the air of a locality which does not cause, when inhaled for 20 minutes, any reflex reactions in the human body.
- Maximum allowable concentration, daily average (MAC_{da}) is a concentration of a hazardous substance in the air of a locality which should not have any direct or indirect impact on a human being when inhaled for an indefinitely long period (years). MAC_{da} is calculated for all population groups and for an indefinitely long period of impact and, therefore, it is the most stringent sanitary and hygiene standard setting concentration of a hazardous substance in ambient air.

The “Atmosphere Pollution Index” (API) is most common in the list of integrated atmosphere pollution indicators.

The surface water quality standards include the following types:

- Maximum allowable concentration in the water bodies for domestic, drinking, and cultural uses (MAC_w) is a concentration of a hazardous substance in water which should not have any direct or indirect impact on the human organism throughout its life or health of subsequent generations and should not deteriorate hygienic conditions of water use;
- Maximum allowable concentration in water bodies used for fishing (MAC_{wf}) is a concentration of a hazardous substance in water which should not have any hazardous impact on the population of fish, especially game-fish.

Also, the method of integral assessment of water quality is used based on the body of pollutants contained therein and frequency of their detection, and the water pollution class is determined.

⁴ Working area is space up to 2 m high above the floor or the area where workers stay permanently or temporarily.

Most of the environmental quality standards that are in force in Russia were inherited from the Soviet Union. By 2003, there were 2,259 MACs and 494 TSELs for the working area air; 625 MACs and 1,945 TSELs for ambient air; 1,343 MACs and 402 “tentatively allowable levels” for domestic and drinking water supply; 1,113 MACs and 100 TSELs for fishing waters; 110 MACs and 71 “tentatively allowable concentrations” for soil; as well as several thousand MACs for chemical elements in foodstuffs. There are also standards for use of natural resources and hazardous physical impact and exposure to radiation.

Many of these standards are judged to be overly-ambitious therefore unachievable due to their “zero risk” philosophy. If decisions are to be taken based on risk management, new ambient standards should be enacted for different locations, with the number of regulated polluting substances limited to those that can be effectively monitored. Unfortunately, the delay in reforming the MAC system maintains intact the Soviet practice of imposing on regulatory requirements but then neglecting compliance with them.

The pilot introduction of “maximum allowable hazardous impact” (known as PDVV) for water bodies has reflected the growing understanding that MAC system needs to be reformed. In 2003, the Russian Research Institute for Fishing developed a methodology for calculating the PDVVs based on the basin management concept. The PDVV reflects the maximum allowable mass of specific chemicals that a water body can receive, as well as maximum water intake volumes. It is assumed that the PDVVs would be calculated based on the classification of the environmental condition of water bodies and used to set emission limit values. The PDVV use is being tested in the Sysert and Vyatka rivers.⁵ PDVVs are intended to account for all the sources of pollutants received by a water body, as well as other impacts on the water body (water intake, diffuse discharge from the drainage system, etc.). Some Russian specialists believe that the PDVV system is still inconsistent, inflexible, and cannot be used as a management tool.

1.4.2. Environmental assessments

In Russia, no significant progress in the procedure of environmental assessments has been reported in recent years. The State Environmental Review (SER) continues to hold a central position in this process and aims at verifying the project compliance with environmental laws and regulations. It results in a formal decision by competent authorities stating whether the activity may start. Besides reviews performed by competent authorities, independent environmental reviews can be carried out by non-governmental actors at their expense. In some cases, environmental impact assessment (EIA) precedes the SER. The list of facilities subject to mandatory EIA includes all large-scale energy, industry, and agricultural facilities. Within the framework of EIA, potential negative impacts and concerns of the general public are studied and measures to prevent and reduce adverse project impacts are developed. Although the need for a differentiated approach is recognized, there are no screening criteria for the sites subject to environmental assessment. Strategic Environmental Assessment (SEA) remains largely outside the scope of current procedures.

The EIA/SER system is quite technocratic and implies little public involvement. Incentives to carry out environmental assessments at the early stages of project preparation (see Box 2) hardly exist due to poor development of procedures and oversight mechanisms. In addition, the public does not get any information

⁵ Варежкин Ю.М.: Разработка нормативов предельно допустимых сбросов в водные объекты, «Экология производства», №6, июнь 2006 г., с. 11-16. (Yu.M. Varezhkin: Formulating Standards for Maximum Allowable Discharges into Water Bodies, *Ecologiya proizvodstva* [Ecology of Production], Issue 6, June 2006, pp. 11-16 of the Russian version).

or the opportunity to “participate” until very late stages of the process. The responsibilities of the project developer and the public authority to ensure public awareness and public participation are not defined clearly enough and create conditions for their arbitrary interpretation and, eventually, grounds conducive to conflicts. When public participation does take place, it is rather driven by NGO activism than the policy of involving the public in environmentally relevant decisions or prevention of investment risks.

Box 2. Environmental assessments at different stages of project preparation

Declaration of Intent. Investment project preparation starts with formulation of an investment concept. At this stage, the project developer is supposed to issue the *Declaration (Statement) of Intent* and submit it to the local government. The Declaration should reflect the key project objectives and elements, in particular brief information on the presumed environmental impact of the planned activity, including types of impact on the environmental media and possible emergencies. Based on the Declaration, public authorities and the local government may set requirements and conditions to be taken into account when developing the pre-project and project documentation.

Justification of Investment. At this stage, different alternatives for achieving project objectives are considered, the location of the future facility is chosen tentatively, etc. When preparing the *justification for investment*, the customer interacts with the local administration services, management and control authorities, and gets input data and technical conditions from them for design purposes. Based on the materials prepared, key features of the planned activity (pre-project solutions) are agreed upon with those authorities. Agreeing upon the conditions of the use of natural resources is a part of the process. In particular, the package of materials comprises the Environmental Impact Assessment section (EIA section). If construction of a new facility is involved, planned activity is agreed upon with the public authorities in the process of preliminary co-ordination of a site for the future facility. For some simple facilities, as decided by the executive authorities, necessary agreements, including preliminary approval regarding the land plot, can be obtained based on the *Declaration of Intent* without preparing the Justification of Investment.

Feasibility Study. Based on the approved justification of investment, project documentation – Feasibility Study (FS) – is prepared. It is the FS which is usually reviewed as the main project document. It comprises the Environmental Protection section, which should describe and justify the environmental protection activities, describe the environment and historic and cultural heritage sites, project changes in the environment and ecosystems in greater detail compared to the EIA section, as well as assess social and economic implications.

Source: О.М.Черп, В.Н.Виниченко, М.В.Хотулёва, Я.П.Молчанова, С.Ю.Дайман. Экологическая оценка и экологическая экспертиза (O.M. Cherp, V.N. Vinichenko, M.V. Khotuleva, Ya.P. Molchanova, S.Yu. Daiman. Environmental Assessment and Environmental Review). 3-е издание, переработанное и дополненное (2000).

1.4.3. Permitting and Emission Limit Values

The scope of environmental permitting/licensing⁶ is extremely wide in Russia, particularly in the field of natural resources use (see Box 3). Permits (licenses) authorize the holder to carry out a specific activity during a set period (commonly, one to three years), under certain conditions. Very often, permit conditions as such are limited to annual amounts of extracted natural resources or emitted pollutants although background documents for setting these conditions may be quite detailed. Both permitting of natural resources and pollution are undergoing reforms, although only limited changes have been introduced in practice so far.

⁶ In Russia, the legislation and special literature often use two identical terms meaning permitting documents – “license” and “permit”. There is no clear distinction between those terms.

Box 3. Licenses for use of natural resources

Use of mineral resources: Licenses set the boundaries, timeframes and conditions for: a) geological studies and prospecting mineral resources; b) industrial extraction; c) use of mining waste or waste from related processing industries; d) use of mineral resources for other purposes; e) setting up geological sites/reserves; f) collection of palaeontological, mineralogical, and other collection materials.

Water use: Water use permits comprise data on the water body, consumers of water, water users, the way and purposes of using the water body, spatial boundaries (coordinates) of the water body or part thereof, and, as necessary, water intake (discharge) points, information on the water use limits, water user obligations to consumers of water, period of validity of the license, and requirements to management and protection of water bodies and environment. Under special conditions, the right to use a water body may pass from one person to another.

Forest use: Special permitting documents for various kinds of forest use are: a) license; b) felling permit, authorization, or forest land plot usage permit. License attests to the right to long-term use (lease) of the forest stock portions. Other documents attest to the right of their holders to short-term use (for up to one year) of a forest stock portion and/or forest resources. No special permit is required for recreation and other uses by individuals.

Soil protection: The following is subject to licensing: soil, agrochemical, phytosanitary, and toxicological environmental surveys and monitoring agricultural land fertility, agrochemical, reclamation, anti-erosion, and other activities aimed to ensure reproduction of fertility of agricultural land, including preservation of severely eroded soils; provision to the producers of agricultural produce of plant protection devices and agrochemicals use technologies, etc.

Use of biological resources: The right to amateur or sports hunting is granted by a registered single license for capturing a certain number of fauna in a certain location and for a certain period or by a certificate for the right to hunt, *i.e.* the hunting ticket. Having a license for commercial (game-) fishing is mandatory for obtaining annual quotas for catching water bioresources and permits for the right to catch water bioresources. The license sets the number, type of fish caught, used fishing devices, timeframe (days, month, season), and other conditions.

Continental shelf activities: Russian legislation sets the following types of licenses for continental shelf activities: a) licenses for its regional geological studies, searching for mineral resources, prospecting and mining mineral resources, including licenses based on product sharing agreements; b) licenses for catching living resources; c) permits for creating artificial islands, installations, and structures; d) permits for marine research; e) permits for disposal of waste and other materials; f) permits for laying underwater cables and other pipelines; g) permits for drilling operations. There is also a permitting system in place for other activities on the continental shelf, *e.g.* licenses are issued for generating power using high tides, streams, and wind.

Other permitting documents: Russian legislation sets procedures for other types of licensing, *e.g.* in the area of land reclamation, genetic engineering, environmental audit, hydrometeorology and environmental monitoring, collection and sale of medicinal plants, and many others.

An important change in the permitting of natural resources use is the replacement as of 2007 of water intake licenses by water use agreements. This was done in order to move from administrative relations toward civil judicial relations, with a declared aim to reduce opportunities for corruption. While in the past a license could be simply revoked by executive authorities, agreement can be cancelled only by the judiciary. It is unclear at this point how this would affect the effectiveness and timeliness of non-compliance responses. Nor is it clear whether this measure will have a positive impact on the integrity of regulators.

Permitting of environmental pollution continues to be medium-specific and focuses mostly on costly end-of-pipe solutions. Emission limit values (ELVs) set by permits (see Box 4) are derived from EQS using modelling software. Since EQS are quite stringent, in certain cases, the ELVs are technically unfeasible. Unlike some OECD countries, the legal system allows authorities to prescribe such conditions thus creating a fertile ground for corruption, particularly because of the link between ELVs and the numerous pollution charges (see the next section).

In order to overcome the problem of ELV feasibility, the instrument of “temporarily agreed emission limit values” has been used. The temporary limits can be set when the permit requirements have to be achieved gradually. Unfortunately, adherence to compliance schedules has been hardly enforced. In recent years, the environmental authorities in Russia have come to realise the deficiencies of the Soviet-legacy single-medium permitting and have started a reform process. They have been actively discussing the need to move from setting facility-specific ELVs to sectoral and process-based principles of standard-setting.

In 2002 the framework law “On Technical Regulation” was passed in an attempt to render more transparent the technical norms governing products and production processes. Under that law, detailed requirements are to be set, including with regard to environmental impact. Those requirements – statutory ELVs – are to be set, taking into account technological factors and, thus, they should restrict the discretion of authorities issuing individual permits. Draft law (regulation) “Water Drainage” drafted in 2004 provided for setting minimum requirements for the physical and chemical properties of wastewater; it was assumed that the standards would not vary by sector.

Box 4. Facility-specific emission limit values in Russia

Air emission limit value (so-called PDV) is a mass of a substance in flue gas, the maximum allowable for emission into the atmosphere per unit of time. PDV is set for each source of pollution of atmosphere (and for each ingredient released from that source) so that air emissions do not lead to ground level concentrations exceeding MAC_{mnr} ; ELVs are set at complete production capacity and normal operation of gas treatment equipment. ELV can be expressed in g/second or tone/year, taking into account the uneven nature of emissions over time, including due to scheduled repairs of process and gas treatment equipment.

Wastewater discharge limit value (so-called PDS) is a mass of a substance in wastewater maximum allowable for discharge, given the regime set at that water body point, per unit of time, with a view to assuring water quality at a test point. The PDS is set for each source of pollution and all ingredients, taking into account their combined impact. In theory, PDS should depend on the water use type, assimilating capacity of the water body, outlook for the development of the region, and best distribution of the mass of discharged substances among water users discharging the wastewater. The PDS is calculated based on dispersion models and should assure compliance with water quality standards (sanitary and fishery) under the worst conditions for dilution at a water body.

Limits for “placement” (storage and disposal) of industrial solid waste are set under the “Temporary Rules of Protecting the Environment against Industrial and Municipal Waste in RF”. “Organized placement” of waste is understood as regulated processes of generation, concentration, collection, transportation, accumulation, and temporary storage of waste, which should be carried out in compliance with set standards and rules.

Importantly, industry not only welcomes this process of permitting reform but tries, via industry associations, to advance it while insisting on a gradual and transparent transition. For example, the pulp-and-paper industries raised funds to conduct research in order to identify the best available techniques for the sector. Simultaneously, a demonstration project has been implemented within the framework of bi-lateral co-operation between Russia and Sweden.

Although the idea of process-based environmental regulation presumed taking into account both technical factors and environmental quality standards (combined approach), the actual implementation of the new system could be undermined by gaps and inconsistencies in the existing regulatory framework. If MACs remain at their current unrealistically stringent levels, they would almost always outweigh ELV standards and will become the main factor in setting permit conditions. To ensure a true reform of permitting, improved MAC and physical planning systems are also needed.

1.4.4. Economic instruments of environmental protection

The economic mechanism of environmental protection in Russia relies on both incentive elements and coercive tools, with the latter somewhat prevailing. Most common are: environmental charges and taxes covering a very large number of air and water pollutants, plus solid waste generation, as well as fines for environmental offences and claims for environmental damage. Guaranteeing loans, subsidizing interest on loans, etc. are of limited use. Other economic instruments for environmental protection, such as product taxes and deposit-refund systems, accelerated depreciation of assets, etc. are not commonly used in Russia. The pollution charges, discussed in detail in this section, are at the core of the economic instruments. This differs from OECD approaches where economic instruments include mainly product taxes, such as energy taxes, as well as targeted emission taxes on selected pollutants.

Pollution charges in Russia are levied universally on all “nature users” (legal or natural persons) that are subject to environmental permits. They are imposed for 214 air pollutants and 197 water pollutants, as well as on “placement” (storage and disposal) of four categories of hazardous waste (based on toxicity) and two categories of non-toxic solid waste. Among mobile sources, enterprise-owned transport vehicles are charged for air pollution. Private cars, the biggest contributors to air pollution in urban areas, were excluded from the system. Recently, the distribution scheme of revenues from pollution charges has been amended: under the Federal Law of 20 August 2004 No. 120-FZ, 20 percent of the total revenue is transferred to the federal budget; 40 percent, to the regional budget; and 40 percent, to the local budget (effective 1 January 2006).

Introduced in the early 1990s, the charge rates were set at the level that was believed sufficient to compensate for the economic damage resulting from environmental pollution. The estimates were made for a few pollutants and extrapolated for the rest of the regulated pollutants by using “conventional tonnes”. Payments are assessed based on the rates set per unit of pollutant. The methodology to calculate pollution charges is set in Government Ordinance No. 632 of 28.08.1992. The base rates were set in Government Decree No. 344 of 12 June 2003; they were amended by Government Ordinance No. 410 of 01.07.2005 .

A central feature of the pollution charge system is that a set of pollutant-specific basic rates apply to discharges within established ELVs, whereas a much higher rate applies to discharges exceeding the limits. The applicable rate of pollution charges is 5 times the base rate for quantities discharged in excess of the ELV but within the temporary limit. For discharges in excess of the temporary limit (or those without a permit), the applicable rate is 25 times the base rate (Table 1). These multipliers represent the “non-compliance component” of the pollution charge. Thus, pollution charges are used as an administrative coercion tool to bring polluters into compliance or to undergo permitting procedures in a timely manner.

Table 1. Calculation principles and sources of pollution charge payments

Pollution Level	Charge calculation	Source
ELV	Base rate (N)	Production costs
Temporary ELV	5 x N	Profit
In excess of temporary ELV	25 x N	

In the past, there were problems with adequate computation of the charges: enterprises often provided their discharge information late to the environmental authorities and, in some cases, underreported their pollution. There was a lack of administrative control over the charge computation process: environmental authorities did not have resources to compare actual discharges with the numbers submitted by the enterprises as the charge base. This undermined the system of pollution charges and contributed to the poor collection of the revenue.

To address this problem, in 2000, the revenue collection responsibility was transferred from the environmental to the federal tax authorities that had a positive impact on the collection rate. As of 2004, the enforcement of pollution charges was assigned to the newly-created Federal Environmental, Industrial, and Nuclear Supervision Service (*Rostekhnadzor*), which has the task of detecting non-payers more thoroughly and imposing penalties on them. The latter reform might provide perverse incentives to the enforcement authorities to concentrate on revenues instead of promoting higher environmental compliance by industries.

Besides allocation of institutional responsibilities, the legal basis for the pollution charge system in Russia has been a challenge. When introduced by a government decree in the early 1990s, pollution charges were not identified as a “tax” but a “charge” paid by polluters to compensate their negative impact on the environment. However, the new Tax Code promulgated in January 1999 referred to the charges as a new “environmental tax”. Furthermore, the same was stated in a number of federal laws adopted afterwards. This confusion resulted in a legal dispute at the Supreme Court of the Russian Federation in 2002 which almost resulted in a collapse of the system. Finally, following a Constitutional Court Decision, the system was reanimated. Nevertheless, the legal foundation of the existing system still contradicts Article 16 of the new Federal Law “On Environmental Protection” (2002) which stated that payments for negative impact on the environment (including pollution) must be established by federal law, and not by government decree. The elimination of this inconsistency and proper authorisation of the pollution charge system through a new federal law has been a priority for the federal government since 2002 and the State Duma is currently reviewing the draft law “On Charges for Adverse Environmental Impact”.

Among other things, this draft advocates reinstatement of the offsets scheme which was in place until 1998, which provided an opportunity to deduct expenditures on eligible environmental projects from pollution charge payments. This needs to be done with great care since previously the offsets were often granted to those enterprises that did not pay charges anyway, defeating the incentive purpose of the scheme and the pollution charge system as a whole.

Overall, the design of economic instruments for environmental protection in its current form does not implement the Polluter-Pays-Principle. However, the environment authorities have long been reluctant to engage in drastic reforms of this system as it provides them with a small but steady source of revenues that they are afraid to lose once the number of parameters subject to pollution charges is reduced.

Some of the economic instruments provided for by the Russian legislation are still used to a very limited extent. For example, the Tax Code of the RF (Art. 67) provides for investment tax credit for environmental research and development. In practice, tax benefits are virtually not utilized because there is no clear mechanism for their application. Higher rates of depreciation for environmental assets were provided for by the Law “On Protection of Natural Environment” of 1996 (Art. 24): however, current Law “On Environmental Protection” does not provide for accelerated depreciation of wastewater treatment plants or other environmental protection facilities.

1.4.5. Voluntary environmental management systems and corporate reporting

Due to limited outcomes of traditional command-and-control instruments, new approaches are being implemented in Russia in order to promote higher environmental performance of the regulated community. These include a number of voluntary approaches, in particular adoption of environmental management systems (EMS). Promotion of EMS certification according to ISO 14000 standards, training of company management and staff, and development of guidelines is done by a range of stakeholders, such as consulting companies, research institutes and universities, and NGOs.

As a result, the EMS are becoming more common in Russia. The only Russian public registry for EMS certification (created by the NGO “Ecoline”) contains data on more than 200 companies that were ISO 14001 certified; however, it is not quite clear whether the coverage of the registry is complete. It is noteworthy that the Goststandart [State Standards Agency] of Russia has registered several voluntary certification systems as per GOST R ISO 14001-98 that transposes the ISO 14 000 series standards in Russia. One of the challenges faced by the authorities certifying those systems is international recognition of the certificates they issue.

Overall, key challenges to the introduction of EMS in Russian industries fall under three categories:

- **Low level of overall management in enterprises**, manifested primarily in the inadequate use of modern approaches to planning and performance analysis, lack of attention to staff motivation and poor organization of training. At the same time, it is where the major potential for reducing environmental impact, better management and “housekeeping” approaches, lies.
- **Narrow treatment of EMS and environmental activities in general.** In most cases, environmental activities of Russian enterprises are viewed exclusively as “end-of-pipe” activities. Certainly, introduction and operation of add-on devices is an integral part of environmental activities; however, in many cases a preventive approach based on systemic analysis of the process as a whole can lead to much better solutions and economic effect. Creating an EMS is also initially viewed in many cases as restructuring the operations of the environmental protection division while, in fact, it requires a top-management decision that such a system is important for the enterprise and its further involvement in setting EMS up. Furthermore, the entire staff should be involved in raising environmental performance.
- **Inadequate understanding of the nature of the EMS standards.** Understanding the very nature of voluntary standards and how they relate to the command-and-control and other regulatory tools presents certain difficulties. The tendency to view them as mandatory is typical in the Russian context, which is largely due to the position (or rather lack of a clear position) of the environmental authorities vis-à-vis EMS. Enterprise managers often view ISO 14000 standards as yet another regulatory tool which is about to be enacted rather than as an internal management and cost optimization tool.

Promotion of EMSs has also played a positive role in the emergence of corporate environmental reporting in Russia. As of July 2006, a total of 41 companies had issued non-financial statements: 14 of them were submitted in the form of a chapter in the companies’ annual statements; 17, in the form of social reports; 6, as reports on sustainable development; and 4, in the form of environmental reports. The latter

four companies are: OAO «Gazprom», OAO «Ryazanskaya GRES», OAO «Archangelski TsBK», and OAO «Severo-zapadnaya lesopromyshlennaya kompaniya».

1.4.6. Environmental performance ratings

Since 1999 environmental ratings of territories, sectors of economy and individual natural resource users have been used more and more frequently in Russia. This tool reflects in a simplified manner the environmental performance or attitude toward environmental compliance issues. Currently, there are several rating agencies in Russia which use different rating techniques. Those agencies include: the Non-Governmental Organization «Social and Ecological Union», the Information and Analytical Agency «RBC-Rating», the Rating Agency «Expert-RA», the Non-Profit Organization «NERA», the Information Agency «Interfax», etc. Differences in approaches used by those rating agencies often lead to differences in assessments of a company. Techniques (criteria) used are not always transparent or clear. It is practically impossible to check the reliability of data which the conclusions rely on. Nor is it clear what the effect of the ratings is in Russia, although international experience has shown that they are highly efficient in improving the environmental efficiency of large industries, provided the ratings create a respective incentive framework.

1.4.7. Environmental liability

The instrument of legal liability as a whole and that for environmental violations in particular is one of the most developed ones in the legislation and legal doctrine of Russia. Environmental liability is often viewed as a means of addressing nearly all the issues of environmental management – policy-makers, law-makers, and the public tend to believe that greater liability can prevent spread of crime and mitigate the negative impact of economic, social, and other factors generating it.

Reform in this domain has not been implemented concurrently and on the same scale in various spheres of legal regulation. Civil liability and disciplinary liability (of enterprise employees) have been least affected in recent years. Although the new Civil Code and Labour Code took effect in 1995 and 2002, respectively, the grounds for, principles, procedures, and other features of these kinds of legal liability remained practically unchanged. They rely on the approaches developed in the environmental legislation of the early 1990s. The situation with criminal, administrative, and tax liability for environmental offences is different. Changes in the criminal legislation have been the most fundamental ones.

Box 5. Civil liability and compensation for environmental damage in Russia

Russian legislation sets the liability of complete compensation for environmental damage caused by industries, institutions, agencies, or individuals by environmental pollution, deterioration, destruction, impairment, and mismanagement of natural resources, destruction of natural environmental systems, or other environmental offences.

Damage compensation can be done voluntarily or as decided by court (including court of arbitration) consistent with the rates and damage assessment techniques approved in the established manner or, in the absence thereof, based on the actual costs of restoration of the disrupted environmental status, taking into account the incurred losses, including opportunity costs.

The amount of damages collected as decided by court (court of arbitration) is transferred to the affected party (individual, economic entity). As agreed by the parties and decided by court, damage can be undone in-kind by obligating the defendant to rehabilitate the environment by his own means or at his own expense.

The Criminal Code of the Russian Federation took effect on 1 January 1997 (passed in 1996). As recommended by the Convention on the Protection of the Environment through Criminal Law (although Russia has not signed it yet), a special separate Chapter 26, *Environmental Crimes*, was included in the Criminal Code for the first time. Legal regulation of criminal liability for environmental crimes is generally consistent with the similar guidelines of the European Union.

Box 6. Novelties of Chapter 26, *Environmental Crimes*, of the Criminal Code

Chapter 26 of the Code comprises the following provisions which are new for the criminal law of the Russian Federation:

- Provides for new *corpus delicti*, e.g. violation of the environmental protection rules when carrying out operations, during treatment of environmentally hazardous substances and waste, soil contamination, etc.;
- Differentiates the most dangerous kinds of wrongdoings;
- Provides for alternative penalties – fines, correctional work, deprivation of the right to engage in certain activity or hold certain positions, mandatory work, restriction of liberty, deprivation of liberty;
- Expands the range of protected subjects (environment, its media – water, ambient air, continental shelf, exclusive economic zone, marine environment, flora and fauna, flora and fauna species entered in the Red Book, etc.);
- Describes in greater detail and more clearly the features of an objective aspect of *corpus delicti*;
- Differentiates clearly the forms of guilt (intent and carelessness, double guilt), etc.;

However, unlike the practices in a number of countries, the CC RF does not provide for the liability of legal entities or (criminal) penalty in the form of damage compensation. There are also other deviations from the international practices.

Nevertheless, measures taken – from improving the criminal legislation to setting up special authorities for combating environmental crime – did not produce the expected results – the number of crimes committed continues to go up and their consequences are even more severe. Moreover, specialists point to new kinds of environmental crimes, the higher impact of corruption and organized crime, the inefficiency of penalties, the low preventive role of criminal law, and its futility against the background of the overall crisis of criminal law and criminal justice.

In this context, changes to Chapter 26 of the Code have been proposed.⁷ In particular, on the initiative of the City of Moscow, proposals have been drafted to bring the text of the Criminal Code into line with international practice, including by ensuring greater deterrent effect of penalties. Those proposals were submitted to the Legislative Committee of the State Duma in 2005.

1.5. Information basis for policy-making

The range of data sources for environmental policy-making is widening and comprises official statistics on the state of the environment and natural resources, changes in them (negative and positive), and environmental activities and their outcomes, the fight against environmental offences, etc. Annual reports on the state of the environment and policy responses have been prepared and published in Russia for fifteen years already at the federal and sub-national levels. The structure of these reports is quite elaborated; they

⁷ To-date, only general changes have been introduced in the provisions of that chapter – when the CC was modified as a whole (when the Minimum Remuneration Amount was replaced with fixed cash amounts, when crime categories were replaced with those under the FL of 08.12.2003). That chapter is one of the most stable ones in the entire Code.

discuss achievements and problems across all policy areas, as well as from the sectoral and geographical point of view. They are published, though, with small print runs and are disseminated to a limited number of agencies and institutions. For some time, such reports were published in an abridged form in *Zeleny Mir* [Green World] newspaper; now the texts are posted on the web-site of the Ministry of Natural Resources.

In addition, the following documents comprise aggregate (summarized) information on the state of, and change in, the environment and natural resources:

- Statistical yearbooks;
- State reports on the state of protection of the population and territories of the Russian Federation against natural and technogenic emergencies;
- State reports on the sanitary and epidemiological situation;
- State (national) reports on the condition and use of soils, etc.

Non-aggregated environmental information is contained in a number of registries that are in place (but not publicly accessible), such as, for instance:

- State Registry of Waste Placement Sites and Federal Classification Catalogue of Waste;
- State Catalogue of Pesticides and Agrochemicals Allowed to Be Used in the Territory of Russia;
- State Registry of Hazardous Production Facilities;
- State Land Registry;
- Consolidated State Registry of Genetically Engineered and Modified Organisms;
- Federal State Registry of Potentially Hazardous Chemical and Biological Substances.

Many federal laws provide for an individual's right to environmental information and yet the issue of adoption of the Federal Law "On Environmental Information", ratification of the Aarhus Convention and introduction of concrete mechanisms of access to information remains acute. For instance, there is hardly any access to the facility-specific environmental information, although Pollutant Release and Transfer Registers have been created in some regions of Russia, *e.g.* in the Volgograd Oblast on the initiative of «Volgograd-Express» NGO. Reporting on activities by governmental activities and analysis of implementation problems is erratic; this kind of report is rarely available to the public although lately such information started to be posted on the web-sites of various agencies and institutions.

Thus, while the available information is very comprehensive, analysis is still inadequate to provide a solid basis for policy-making. An important problem is posed by the lack of stability in the set of indicators and scope of statistical observation that change almost every year, making it difficult to compare specific data sets or identify trends. In general, the reliability of collected data is low due to flawed reporting from enterprises, poor monitoring systems, limited standardization of terminology and collection procedures, etc.

CHAPTER 2: RECENT CHANGES IN THE LEGAL FRAMEWORK

The transition period in Russia has been marked by an intensive development of environmental laws. During this period, several milestones were passed, including the enactment of the Law “On Protection of Ambient Natural Environment” of 1991; enactment of the Constitution of 1993; drafting and enactment of a set of federal laws in 1995-1999; filling in gaps in the legal framework and development of the second generation of some federal acts in 2000-2005. This section of the report describes some key changes in the environmental legal framework since 2000.

2.1. Structure and focus of environmental legislation

In 2005, the environmental legal framework in Russia comprised more than 30 federal laws as compared to only six laws/codes that existed in the early 1990s. Furthermore, environmental requirements are scattered through hundreds of secondary legal acts. Besides domestic legislation, many international legal acts have been ratified. There are many other sources of environmental law, for instance judicial practice and judicial precedent. As a consequence, it is not always clear which norms apply in a specific case thus creating confusion for regulators and regulatees alike.

The focus of environmental legislation in Russia is being actively debated. Two opposite opinions exist: some specialists are in favour of ambitious environmental standards; others insist that environmental requirements should be relaxed to facilitate a more intensive use of natural resources. Among policy-makers and business actors, environmental regulation is widely regarded as an impediment to economic development; on the contrary, the representatives of academic circles and NGOs believe that the emerging precedence of economic goals over environmental protection would have many negative effects, including a wide disregard of individuals’ environmental rights.

While the unfeasible and overly prescriptive environmental regulation inherited from the Soviet Union can indeed be damaging to economic activity, a modern approach can help deliver vital environmental improvements in a way that fits with a competitive economy. Environmental requirements may adversely affect economic sectors manufacturing environmentally harmful products, but in these cases the benefits to society outweigh the costs. At the same time, there is evidence from international research that well-designed environmental regulation does not impede overall competitiveness and economic development but can be beneficial by creating pressure on firms to innovate and improve resource efficiency. These drivers come into play particularly in the context of global economic integration, where concerns about company image and investor confidence reinforce the need for better environmental regulation.

2.2. Law-making mechanisms

Commonly, emerging environmental problems and the need to address them through legal tools impose a continuous development or modification of the existing legal frameworks. In Russia, this process of law-making is carried out at various levels of government by the following entities:

- As concerns primary legal acts (federal laws, codes, fundamentals of legislation) – Federal Assembly of the Russian Federation and legislatures of the constituent entities of the RF;
- As concerns secondary legislation (decrees, acts, dispositions, orders, and other acts of regulatory nature issued by the executive authorities) – President of the RF, Government of the RF, ministries, and executive authorities of the constituent entities of the RF.

The draft of any federal law is reviewed by, and co-ordinated with, the federal executive authorities concerned in a compulsory manner and then it undergoes deliberations (hearings) at legislative authorities. General procedure for any draft law provides for three hearings in the lower chamber of the Parliament – the State Duma; submission of the law passed in the third reading to the second chamber – Federation Council, its review by the senators and adoption of the law. If the law is not approved by the Federation Council, it is returned to the State Duma. Any law passed by the Federal Assembly is reviewed and approved by the President of the Russian Federation vested with veto power. Should he exercise that power, the president's veto can be overcome by at least two-thirds of votes of the total number of the Federation Council and the State Duma members; otherwise, the legislative process starts again.

Public deliberation is held in the form of a topic-specific parliamentary hearing rather than hearing of a particular draft law. For example, in February 2006 a parliamentary hearing regarding liability for environmental offences was held. Researchers, officials, Duma members, and representatives of the general public were invited. Also there are examples of expert review of requirements set by a draft law. It should be mentioned that under Article 11 of the Federal Law “On Environmental Expert Review” draft legislative acts of a regulatory and non-regulatory nature of the Russian Federation which might have adverse environmental impact are subject to a mandatory state environmental review held at the federal level. The procedure of review prescribes mandatory consultations with NGOs.

Specific requirements exist with regard to dates of entry into force of laws and regulations. In particular, legal acts issued by the federal executive authorities (mostly ministries) take effect following their state registration with the Ministry of Justice of Russia and promulgation in specialized publications. Regulations issued by the Government of the Russian Federation come into force following their publication. Effective dates of federal laws are set in their final part, taking into account the time necessary for the industry and public authorities to adjust to the new requirements. For example, the Federal Law “On Technical Regulation” was issued on 27.12.2002 and took effect on 1 July 2003, six months after its promulgation. Unfortunately, the transition period set is often too short for the adjustments necessary.

Public authorities do not develop plans for phasing in new requirements. However, the State Duma of the Russian Federation has law-making plans and the Government of the Russian Federation has action plans for drafting regulations. For example, there is such a plan for drafting secondary legislation for the Federal Law “On Technical Regulation” in 2006-2008. Federal executive authorities vested with powers to pass regulations prepare their own annual law-making plans.

2.3. Constitutional provision and primary legislation

The Constitution of 1993 set the overall framework for environmental management in Russia by formulating governmental functions in this field; the need for environmental protection and responsibility of the current generation to the future ones, as well as the obligation of the government to protect the environmental quality in the domestic and foreign relations. Article 42 establishes the **constitutional rights** to a favourable environment, reliable information on the state of the environment, and compensation for damage caused to human health or property as a consequence of an environmental offence. Constitutional obligation to protect nature (Art. 58) corresponds to the right of individuals to a favourable environment. Also, ownership of land and other natural resources is addressed, allowing owners to manage natural resources in their possession “provided this does not cause damage to the environment or infringe upon the rights or lawful interests of other people”. Also the Constitution provides for division of jurisdiction between authorities at the federal and sub-national level.

The main corpus of environmental law appeared in Russia over 1991-2000 (see Box 7). As mentioned above, these laws have been partly complemented and partly updated over recent years. They are backed by numerous regulations that provide for the implementation mechanism of legal requirements.

Box 7. Chronology of development of the Russian legislation in 1991-1999

1991: laws were passed “On the Protection of Natural Environment” and “On Social Protection of Individuals Exposed to Radiation as a Consequence of the Chernobyl Nuclear Power Plant Catastrophe”

1992: Law “On Subsoil” and Land Code of the RF

1993: Laws “On Certification of Products and Services”, “On Standardization”, “On Social Protection of Individuals Exposed to Radiation as a Consequence of the 1957 Accident at “Mayak” Production Association and Discharge of Radioactive Waste in the Techa River”, and Fundamentals of the Legislation of the Russian Federation on Health Protection

1994: Federal Law “On Protection of Population and Territories against Natural and Technogenic Emergencies”

1995: Federal Laws “On Natural Medicinal Resources, Therapeutic and Rehabilitation Areas, and Resorts”, “On Especially Protected Natural Territories”, “On Fauna”, “On Nuclear Power Utilization”, “On Environmental Review”, “On the Continental Shelf of the Russian Federation”, “On Geodesy and Cartography”, as well as the Water Code of the RF and new version of the Law “On Subsoils”

1996: “On Radiation Security of the Population”, “On Soil Reclamation”, “On State Regulation in the Area of Genetic Engineering”, as well as the Forest Code of the RF and Criminal Code of the RF

1997: Federal Laws “On Destruction of Chemical Weapons”, “On Safe Treatment of Pesticides and Agrochemicals”, “On Industrial Safety of Hazardous Production Facilities”, “On Safety of Hydrotechnical Facilities”

1998: Federal Laws “On Charges for Water Bodies”, “On Industrial and Municipal Waste”, “On Hydrometeorological Service”, “On State Regulation of Fertility of Agricultural Land”, “On Inland Sea Waters, Territorial Sea, and Adjacent Zone of the Russian Federation”, as well as the Urban Development Code of the RF

1999: Federal Laws “On Sanitary and Epidemiological Wellbeing of the Population”, “On Protection of the Lake Baikal”, and “On Ambient Air Protection”.

Over the past five years, a number of new federal laws and codes, as well as numerous Presidential decrees and Governmental ordinances have been issued and have taken effect. Key ones are described in more detail below. Many constituent entities of the Russian Federation have passed their own laws detailing the provisions of the federal acts or addressing gaps of environmental regulation.

2.3.1. Cross-cutting legal acts

In the Russian legal framework, there are legislative acts (and those equal to them) which govern environmental protection and use of natural resources as a whole. They set cross-cutting requirements and provide for the overall framework of environmental management. Among them, the key act is the Federal Law “**On Environmental Protection**” of 10 January 2002 that superseded a similar law which had been in effect since the Soviet era. It mandates the instruments of environmental policy and calls for a balanced solution for environmental, social and economic problems. The law introduced many new concepts and instruments. However, many provisions of the law have been criticized by practitioners and researchers as being contradictory, ambiguous, and difficult to interpret. Since this law perpetuated the Soviet tradition of declarative law-making, it has required the adoption of many implementing regulations. Some experts believe that the law needs to be reworked and better aligned with international practice.

Box 8. Brief overview of the Law “On Environmental Protection”

The law consists of 16 chapters, comprising 84 articles. Chapter I “General Provisions” defines 36 key concepts, lists 22 underlying principles of environmental protection, and specifies its subjects. Chapter II focuses on the fundamentals of environmental management and includes a number of articles traditional for the Russian legislation: on the powers of public and executive authorities of different levels and those of local governments.

Chapter III focuses on the regulation of rights and duties of individuals, non-governmental associations, and other non-profit organizations. Its norms detail the constitutional provisions, and Art. 13 obligates the legislature and the executive authorities of the Russian Federation and its constituent entities and local governments to guarantee the environmental rights of individuals, non-governmental, and other non-profit organizations. This chapter provides for the consideration of public opinion and referendum results when making decisions about placing business facilities which might cause environmental damage (Part 2) and comprises a reference provision on holding the officials of those authorities liable should they impede the exercise of the individuals’ rights.

Chapter IV comprises five articles on the economic instruments of environmental protection, earmarked programmes, pollution charges, incentives for better environmental performance, and environmental insurance.

Chapter V establishes general provisions on environmental standard-setting, including environmental quality standards, allowable environmental impact, allowable emissions of substances and microorganisms, waste generation, allowable physical impacts, allowable extraction of ambient components, allowable induced load on environment, elaborates in somewhat greater detail on the provisions of Art. 1 of the Law on the key terms, and comprises general provisions on the state standards, licensing, and eco-certification.

Chapter VI is comprised of two articles on environmental impact assessment and environmental review. Chapter VII comprises twenty-three articles containing summary provisions from other laws and regulations, provisions on specific bans, duties, procedures at various stages of design, construction, and other activities of various facilities of the national economy (energy, transport, agriculture, etc.). The chapter ends with a reference article on the possibility of restricting, suspending, or terminating the activity violating the requirements it sets.

Chapter VIII regulates the procedure for setting zones of environmental disaster or emergency. Chapter IX regulates the status of especially protected natural sites. Articles 58-62 determine the measures for such protection as a whole and with regard to rare and endangered flora, fauna, and other organisms, vegetation of urban and rural settlements, rare and endangered soils.

Chapter X comprises one article on setting up the state environmental monitoring.

Chapter XI determines the objectives and kinds of environmental compliance assurance (state, municipal, self-control, public), rights, duties, and liability of state inspectors, and the final article is about state accounting for the facilities that have negative environmental impact, which is maintained for the purposes of state regulation of environmental activities and day-to-day and long-term planning of activities to mitigate such impact.

Chapter XII sets for the first time in the Russian legislation at a federal law level general provisions on environmental research, assessing the adverse environmental impact of business and other activities, improving the legislation, developing best environmental techniques and programmes of rehabilitation of the environmental disaster areas.

Chapter XIII on the fundamentals of environmental awareness is also a novelty. It outlines the principles of the universal and comprehensive nature of environmental education, determines its forms, and requires that managers and employees whose decisions might have adverse environmental impact receive environmental training.

Another important cross-cutting act is the Federal Law “On Technical Regulation” of 27 December 2002 (see Box 9) drafted as part of a comprehensive regulatory reform aimed at convergence with international law-making practices. The adoption of this law constituted a radical change in the system of standardization and certification: it abrogated the Soviet-era standards, sanitary and construction norms and other similar regulation (in total, around 60 000 secondary legal acts). The law aims at addressing inconsistencies between Russian standards and the standards in effect in other countries (for noise, product quality, packaging quality, etc.) and adjust the system to the current context where new technologies and new products appear very rapidly. According to expert opinion, up to 8 000 sectoral laws and a similar number of by-laws will need to be developed and approved during the seven-year transition period allowed by this law. There are hopes that this reform will considerably reduce the administrative burden on industries and exclude some 8-10 billion USD per year from shadow economic activity. Unfortunately, progress on enacting new regulations has been extremely slow while old regulations have been abolished.

Box 9. Brief overview of the Law “On Technical Regulation”

The Law consists of ten chapters comprising 48 articles. Chapter 2 of the Law governs the content and application of technical regulations, types thereof, drafting, adoption, modification, and cancellation procedures. Environmental protection is one of the specified objectives of the technical regulations. Exceptional cases are stipulated where it is necessary to issue immediately a legislative act on technical regulation, e.g. in the circumstances posing immediate threat to life or health of humans, fauna, or flora, environment, etc. The President of the RF has the right to issue such an act without public consultations.

Chapter 3 sets the objectives, principles, types of documents in the area of standardization, powers of the national authority of the RF and technical standardization committees, content of the standards and their drafting (approval) rules.

Chapter 4 focuses on compliance verification (voluntary or mandatory), its forms, objectives, principles, the instrument of declaration (Art. 24), and certification procedures.

Chapter 5 addresses the issues of accreditation of certification authorities and testing laboratories (centres); and Chapter 6, those of state control (supervision) over compliance with technical regulations. Such control is exercised with regard to products, production, operation, storage, transportation, sale, and disposal.

Chapter 7 governs the issues of information provision on the violation of technical regulations and revocation of products, including forced revocation.

Chapter 8 provides for setting up a federal repository of technical regulations and standards.

Chapters 9 and 10 discuss financing and set forth final provisions.

2.3.2. Water Code

The Water Code of 16 November 1995 is in effect until 1 January 2007, but on 3 June 2006 the President of the Russian Federation signed a new Water Code. Its adoption was preceded by many debates and the code seems to be one of the most controversial pieces of environmental legislation in Russia. The new Water Code contains seven chapters comprising 69 articles. In addition to it, the Federal Assembly passed the Law “On Enactment of the Water Code of the Russian Federation” which, among other things, established the transitional period until 1 January 2007.

Box 10. Outline of the Water Code of the Russian Federation

Chapter I sets forth general provisions, i.e., defines the terms and principles of the water legislation (but not those of the water policy), specifies protected objects – surface and underground water bodies, as well as water bodies of open access, and subjects of legal relation. Chapter II governs the ownership right and other rights to water bodies. The Code for the first time has a chapter (Chapter III) on the water use agreement and decision to provide a water body into use. This law-making decision was a result of a heated political battle supported by the theoretical justifications regarding greater efficiency of public or private means (methods) of legal regulation of environmental protection and natural resources. Chapter IV focuses on management issues, and chapter V – the largest one – on the regulation of the right to water use. Article 55 of Chapter VI formulates main requirements for the protection of water bodies and then specifies measures for their protection against various threats, primarily pollution – depending on the category (type) of the water body – swamps, glaciers, etc. The same chapter formulates – from a somewhat different perspective – requirements for the protection of water bodies within the framework of various uses, as well as within the limits of special – *de jure* and *de facto* – zones. Chapter VII sets provisions on liability for violation of Code's rules.

Currently, it is difficult to assess the Water Code in general, but, clearly, it marks the shift in management approaches since focus is put on replacing public (administrative) means of regulation with civil ones. In comparison with the previous version, the requirements of the Water Code have become more declarative which, in fact, illustrates a trend in the most recent environmental legislation of Russia. In consequence, there is a greater need for developing the secondary legislation that might cause important delays in the implementation of the Code.

2.3.3. Land protection legislation

Land regulation in Russia is one of the most politicized segments of regulation, eclipsing even debates around radioactive waste import and protection of Lake Baikal. Recently passed legal documents include several laws governing issues of ownership and its delimitation, information support for the protection and use of soils, procedure for their use, protection of agricultural land, its utilization, etc. Most importantly, the new Land Code of 25 October 2001 was enacted. These legal acts required amendment very soon after their entry into force in order to make the legal provisions more realistic, clarify the language or address mistakes in the definition of the objectives of legal regulation. At the same time, they provided for many environmental duties, restrictions and bans that are generally consistent with the requirements imposed in the European legislation.

2.3.4. Other special laws

In Russia, most numerous are the legal acts laying the rules of conduct in a specific area or affecting a particular activity or specific environmental impacts (*e.g.* the protection of Lake Baikal, activities at especially hazardous production facilities, waste treatment, etc.). Since 2000, a number of issue-specific laws have been developed and enacted:

- Federal Law “On the Territories for Traditional Use of Natural Resources by the Aboriginal Small Peoples of the North, Siberia, and Far East of the Russian Federation” passed in 2001. The law introduced the very concept of “territories for traditional use of natural resources”. Its goals go beyond environmental protection – first, protect the aboriginal habitat and traditional lifestyle of small peoples; second, preserve and develop their original culture; and third, conserve biodiversity in the territories for traditional use of natural resources. Implementation of this Federal Law has been faced with certain difficulties, the main one being that the authorities slowly delimitate and have legally registered the territories for traditional use of natural resources.
- Federal Law “On Fishing and Conservation of Biological Water Resources” of 21 December 2004;

- Federal Law “On Earmarked Environmental Programmes for Rehabilitation of Radioactively-Contaminated Areas” of 10 July 2001; Federal Law “On Social Protection of Individuals Exposed to Radiation as a Consequence of Nuclear Tests at Semipalatinsk Testing Ground” of 10 January 2002, and Federal Law “On Social Protection of Individuals Engaged in Work with Chemical Weapons” of 11 October 2000. For a number of reasons, society perceives the requirements of these laws either as non-enforceable and reducing the level of benefits for the persons affected by accidents or engaged in hazardous work, or as posing high risk for environmental quality and human rights to favourable environment and protection of health (*e.g.* allowing import of radioactive waste), or as breeding grounds for corruption and abuse by governmental officials;
- Federal Law “On Quality and Security of Foodstuffs” of 2 January 2000: although the law set the requirements for the quality and security of foodstuffs for the first time in Russia, it is very declarative and obsolete compared to international benchmarks.

2.4. Selected sectoral legislation

2.4.1. Urban Development Code

This act was passed on 24 December 2004 and it superseded the Code of 7 May 1998. The Urban Development Code is quite complex in terms of its structure, content, and range of regulated relations. It was enacted by a special Federal Law of exceptionally large volume (18 articles). As in the case of the Water Code, it is difficult to assess the impact of this legal act due to a very short time since its enactment. Definitely, the introduction of urban zoning constitutes a positive development. Unfortunately, the new approval procedure of the urban planning documentation potentially gives rise to red tape and corruption. Many of the Code’s provisions are unclear and views have been expressed that this legal act was adopted to promote private interests, such as, for instance, easing property re-distribution.

2.4.2. Customs Code

The Customs Code of 2003 comprises a number of environmental provisions. Along with other legal acts, it details bans on bringing in goods and vehicles posing a threat to the environment, procedure for destruction of certain goods, etc., but its provisions are only applicable in conjunction with related environmental and other sectoral legislation. In fact, most of the provisions are of reference nature or are worded in such a general manner that it would be extremely difficult to ensure their direct effect while the previous Customs Code comprised not just reference provisions, but also ones with direct action. Compared to the previous Code, the new one has fewer environmental requirements for the products, materials, and goods brought in/out of the country. Specialists believe that this legal act needs urgent improvement.

2.4.3. Code of Administrative Offences (CAO)

The new Code of Administrative Offences of the RF (hereinafter “CAO”) was passed on 30 December 2001. It superseded the CAO of 1 June 1986. Its adoption was triggered by a number of factors, including a large-scale legal and judicial reform, internal contradictions due to a large number of amendments, inconsistencies with other laws containing administrative liability provisions, important reform of authorities with enforcement functions, etc.

The ever increasing rates of non-compliance (including environmental non-compliance) demonstrated the need for reform. To address this need, the new CAO:

- Expanded considerably the list of the constituent elements of environmental offences. The Code has incorporated new constituent elements and split those provided for by the previous Code;
- Uses three structures of constituent elements – *material*, specifying adverse consequences; *formal*, for which liability occurs for the violation of the rules proper, and *endangering*, where liability occurs for posing a threat to the environment or possible damage;
- Introduced a number of common constituent elements providing for liability for the violation of work procedures, waste management rules, hazardous substance management rules, etc.;
- Clarified and described in greater detail the features of an objective aspect of many conventional constituent elements of environmental offences;
- Comprises more complex precepts determining the framework of subjects of administrative penalties, reflecting the complexity of the setup of enforcement authorities. A number of agencies are authorized to impose administrative penalties in a number of areas. For example, the Federal Service for Supervision over Use of Natural Resources acts as an environmental enforcement authority in the area of water protection, use, conservation, and protection of forests, fauna, etc., where all of its functions of detecting and hearing the administrative offence cases cross, and sometimes, possibly, overlap with, the powers of the Federal Environmental, Industrial, and Nuclear Supervision Service of Russia, Federal Phitosanitary and Veterinary Supervision Service, border and customs authorities, etc.
- Expanded the range of subjects of administrative liability. In addition to individuals and officials, as well as individual entrepreneurs, legal entities are now also held liable. The penalties envisaged for legal entities are considerably higher than those for other categories of offenders.

2.5. Secondary legislation

2.5.1. *Decrees and orders of the President*

Over the past five years, the issues regulated through Presidential decrees concerned mostly the environmental security, programme planning in the most important areas of government activities, tighter control over export of hazardous technologies, substances, and materials, and reforming the management system. For example, the Military Doctrine of 2000, approved by a Presidential decree, formulates the strategic objectives of improving the control over the turnover of hazardous substances, protection of hazardous facilities (nuclear power, etc.), organizing the destruction of chemical weapons, etc.

The greatest impact on the system of environmental management had the decrees under which the administrative reform was implemented – those of 9 March 2004 and of 21 May 2004, addressing the issues of the structure and setup of the federal executive authorities, distribution of their competence, division of their regulatory, organizational, and enforcement functions, direct subordination of some entities to the President and the Government, and conversion of previous committees and supervisory authorities into the federal services and federal agencies.

2.5.2. Law-making by the Government

The Government is engaged in law-making in all the areas of environmental policy. For instance, since 2000, acts were issued to regulate water protection, protection of the Lake Baikal, issues of environmental standard-setting and pollution charges, a list of facilities subject to state environmental compliance assurance, etc. Within the framework of the administrative reform, the Government approved regulations on the ministries, federal services and agencies under its supervision, including on the Ministry of Natural Resources and other environmental agencies.

Many specialists do not consider such voluminous law-making to be a positive point. They believe this leads to the “substitution” of the law and suggest incorporating the provisions of the acts of the Government in the text of the law as much as possible when codifying the environmental legislation.

2.6. Legislation developed at the sub-national level

Recently, law-making at the sub-national level has intensified considerably. The quality of the environmental regulations enacted by authorities at this level has improved as well. In the 1990s, many constituent entities of the Russian Federation simply replicated the texts of the federal laws, adding insignificant new features. In contrast to this, since the early 2000s many sub-national authorities have been drafting and passing acts which have no federal-level analogues or which detail considerably the federal provisions, taking into account environmental, industrial, agricultural, and other specificities of the region. For example, the City of Moscow passed the law on environmental compliance assurance, a law on environmental monitoring, a law on protection of urban plantation, etc. Moscow laws on the protection of urban lands, waste treatment, etc. are being finalized. There is an environmental policy law in the Kaliningrad Oblast; a law on the protection of domestic animals in Bashkortostan, a law on environmental education in the Primorsky Kray, etc. Sometimes the laws or acts of the executive authorities of the constituent entities of the Federation approve earmarked environmental programmes (*e.g.* the Law “On Earmarked *Oblast* Programme “The Ecology of the Moscow Region for 2001-2002”” was enacted in May 2001).

2.7. Plans for law-making at the federal level

Further environmental law-making is planned in several areas. First of all, the current legislation is being updated. The number of amendments denotes a low feasibility and enforceability of requirements. Then new versions of legal acts are drafted to replace current laws: in 2006-2007, the new Forest Code and the Law on Subsoil have been under development. Current law-making plans aim at passing laws on drinking water, on environmental compliance assurance, on state environmental management, on the protection of flora (except forests), on hunting and game husbandry, on the environmental security of population, on chemical (hazardous) substances, etc. Some of these laws have already partly undergone the legislative process, but for various reasons they were put off, submitted for re-drafting, etc. Unfortunately, no regulatory impact analysis is conducted.

An important undertaking is codifying the environmental legislation. Over the past two years attempts have been made to draft the Environmental Code of Russia. A proposal to draft the Code was developed based on international experience. The Code is being drafted by the MNR of Russia, but there have been no publications yet on its work outcomes. In general, this development is consistent with the drive to streamline and simplify regulation (environmental in particular) in many OECD countries. However, there is a risk that codification will remain an exercise of form rather than substance.

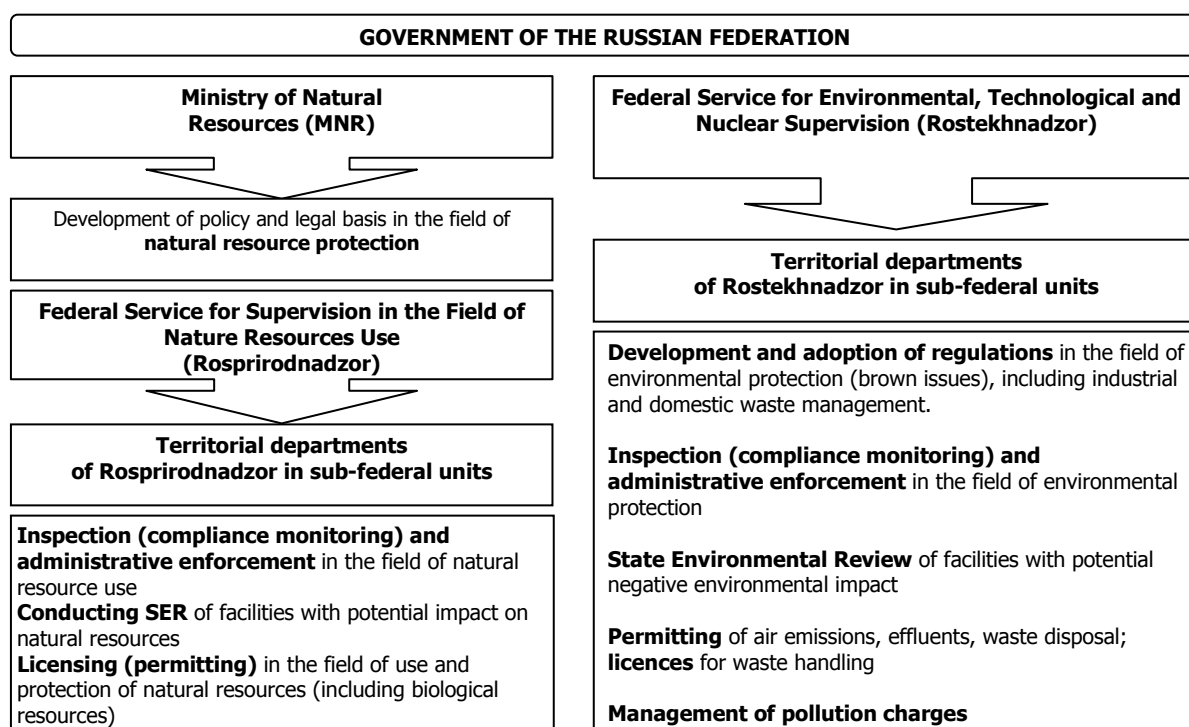
CHAPTER 3: GOVERNMENT STRATEGIES FOR ENSURING ENVIRONMENTAL COMPLIANCE

Environmental legislation and policies need a strict and concerted implementation to ensure effective and efficient protection of human health and the environment. In response to this need, compliance assurance systems aim to influence positively the behaviour of the regulated community and make its members comply with environmental requirements. This chapter describes the environmental compliance assurance practices in Russia with a focus on pollution control activities. Overall, these practices still focus on the discovery and punishment of violations by governmental officials. This strategy is hardly effective against the background of an increasing number of regulatees and decreasing resources, especially human resources, available to environmental enforcement authorities.

3.1. Responsibilities and powers of environmental enforcement authorities

As mentioned above, Russia has two specialised environmental enforcement authorities (Figure 2). Since 2004, they have received an enlarged mandate that covers almost the entire regulatory cycle: starting from regulatory design to administrative enforcement. Also, their institutional status has been raised from the departmental level to a more autonomous “federal service” level. These institutional changes were largely driven by the 2004 administrative reform.

Figure 2. Structure and functions of the key environmental enforcement authorities in Russia

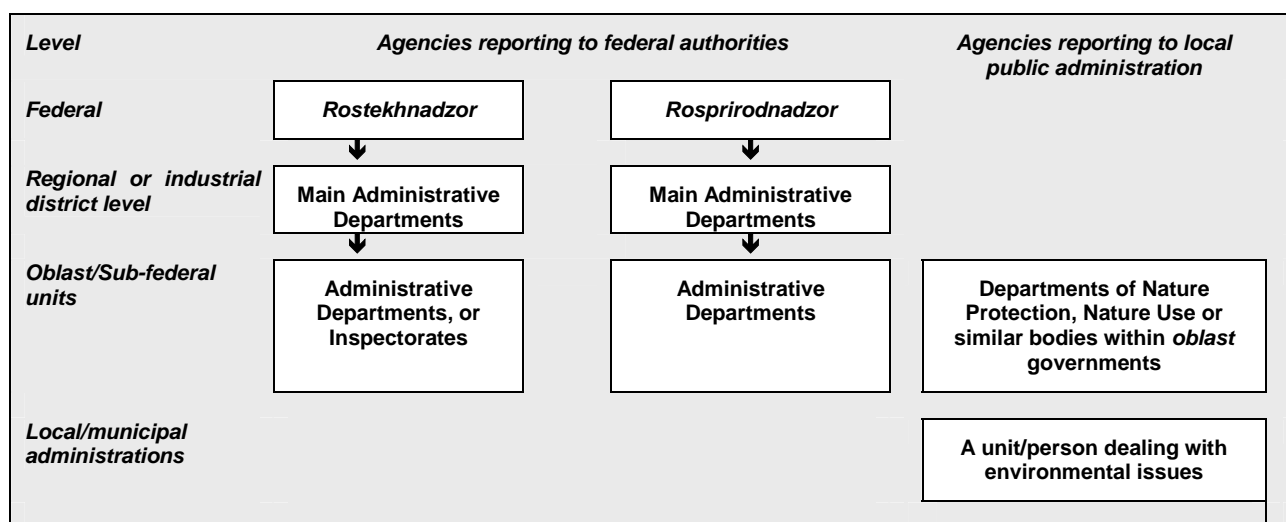


The administrative reform separated enforcement in the field of natural resources use from enforcement of pollution control requirements that previously were integrated under the umbrella of the Ministry of Natural Resources. The latter function was delegated to the governmental agency in charge with industrial and nuclear safety. This decision was taken less than two years after another major reorganisation that, on the contrary, aimed at integration. The benefits of the last re-structuring are not yet clear. For the time being, it resulted in duplication of certain functions and a higher level of institutional fragmentation: at the federal level, at least seven agencies have environmental management functions, while at the sub-national level their number is almost double.

Lately, the environmental enforcement in Russia has evolved toward a greater decentralisation: as of 2006, the local administration (including at the municipal level) received the right to regulate and inspect a certain segment of industry. The following regulatees, however, remained under federal jurisdiction:

- Nuclear power plants, military units, and facilities situated on land in federal ownership,
- Facilities that have adverse impact on the sites included in the World Cultural Heritage List and World Natural Heritage List and facilities contributing to the cross-border environmental pollution;
- Facilities that annually: store or dispose of more than 10,000 tons of waste of 1st or 2nd class of hazard; discharge more than 15 million m³ of wastewater; and have more than 500 tons of air emissions.

Figure 3. Division of responsibilities between different levels of administration in the field of environmental compliance assurance in the Russian Federation, as of 2004



The institutional capacity at the regional and municipal levels varies considerably. Several administrations set up strong environmental committees that assumed compliance assurance functions. In other regions, the administrations tend to delegate energy, municipal services, and environment to one department where environmental issues are the smallest priority. At the municipal level, in most cases there are no environmentalists or there is just one person who has the necessary resources and experience and who is forced to combine the environmental function with several other control functions.

Given the frequent regulatory capture by local administration to pursue economic development at any costs or favour certain companies, it might be prudent to keep the implementation of regulatory and enforcement functions under the oversight of the federal government. To this end, an effective mechanism of performance assessment is needed, alongside procedures that would ensure a full transparency and accountability of the local authorities. Commonly, to enable effective delegation of responsibilities, a number of criteria need to be followed, most importantly: clear definition of jurisdictions, standardisation of inspection tools, clear enforcement policy, capacity building and quality control, creation of co-ordination mechanisms, and financial support to sub-national units. Except for a certain clarification of jurisdictions, these criteria are hardly followed in Russia due to, among other things, a low institutional capacity at the federal level.

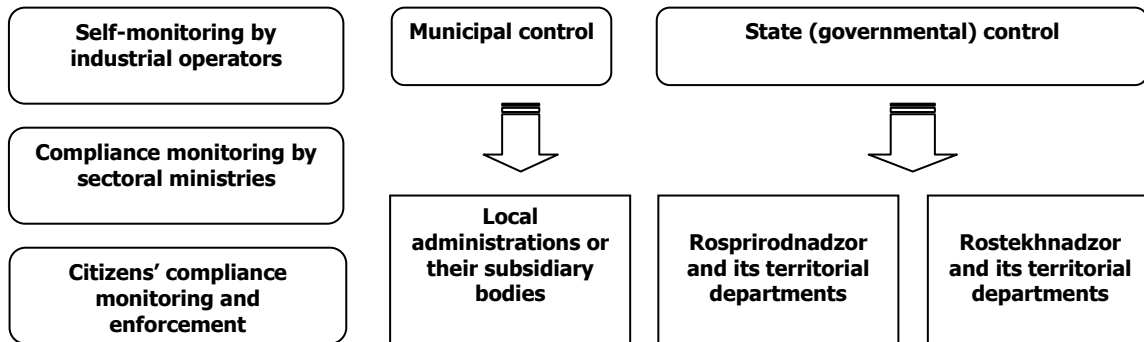
The powers of the environmental enforcement authorities are comparable to those in OECD countries and include the right to:

- Request and obtain information necessary to perform their functions;
- Enter facilities and inspect both the documentation and the technical state of facilities, including by sampling, measurements, surveys, etc.;
- Obtain oral and written explanations from managers and other employees of enterprises, organizations, institutions, and other persons;
- Issue opinions on the environmental compliance of activities, condition of a facility, items, materials, input, products, or specific parameters and indicators; issue binding orders to eliminate shortcomings and violations in activities;
- Suspend and/or terminate environmentally-adverse activity; and
- Suspend or cancel issued licenses/permits should their conditions be violated; impose administrative penalties;
- In some cases – use duty weapons, and conduct searches and examinations.

In principle, the powers vested in the enforcement authorities are proportional to the assigned responsibilities. One major exception is linked to the restricted frequency of site visits and their announced character, discussed below.

There is a wide range of other official actors that are involved in compliance assurance, including a variety of ministries, such as those covering public health, industry, economic development, agriculture and transport. Sometimes it results in the overlap of functions but gradually coordination among different authorities is improving. Furthermore, other stakeholders, such as industrial operators themselves and citizens, play an increasing role (Figure 4).

Figure 4. Key stakeholders involved in environmental compliance assurance in Russia.



In the second half of the 1990s, at the Ministry of Internal Affairs, specialised units were set up to deal with environmental offences. For example, the Moscow Militia (Police) Department for Prevention of Environmental Offences was established. Its main tasks were: to prevent and suppress environmental offences; to ensure safe operation of environmental authorities, *sanepidnadzor*, and others during performance of their duties; field control over environmental activities carried out in the city and the state of the city's protected natural territories. Similar entities operated in a number of constituent entities of the Federation (Kabardino-Balkaria, Krasnodar Kray, Yaroslavl Oblast, Nizhniy Novgorod, Saint-Petersburg and Leningrad Oblast, and other regions). In 2000, the Ministry of Internal Affairs abolished the environmental militia, despite the objections of the constituent entities of the Federation.

At present, the environmental militia is being revived: the executive authorities of more than twenty constituent entities of the Russian Federation have set up specialised environmental militia units. Its operation resumed in Moscow on 1 October 2001. The staff of the environmental militia in the capital city of Russia is 1,100 persons. Funding in the amount of Rub 48 mln a year comes from the municipal budget.

3.2. Activity planning

Several documents guide the activities of environmental enforcement authorities in Russia but there is no strategic plan which would specify objectives and compliance targets, and would then identify the optimal mix of compliance assurance tools to best achieve strategic objectives. More common are annual (federal and sub-national) inspection plans that often represent a simple schedule of on-site visits.

At the same time, inspection priorities are defined based on industry size and its potential adverse environmental impact. This kind of information is available internally from officials responsible for issuing permits⁸, as well as from the federal statistical authorities. The State of the Environment reports analyse data on the largest polluters and their relative contribution to the total emissions in a given sector thus can serve as another source of information. Unfortunately, priority setting is not systematically supported by the analysis of factors leading to offences although most widespread offences are being identified.

⁸ At the sub-national offices of *Rostekhnadzor*, inspection staff and permitting specialists operate at different units. But the inspection unit always has information on the permits and licenses issued to a regulated industry.

The annual inspection plans of the federal-level authorities used to be internal documents, but since 2006 they have started to be posted on the web site of the respective governmental agency. The information that is disclosed includes the name of the inspected facility, the type of inspection, priority aspects of inspection and licences/permits to be checked, as well as the bodies involved in each inspection.

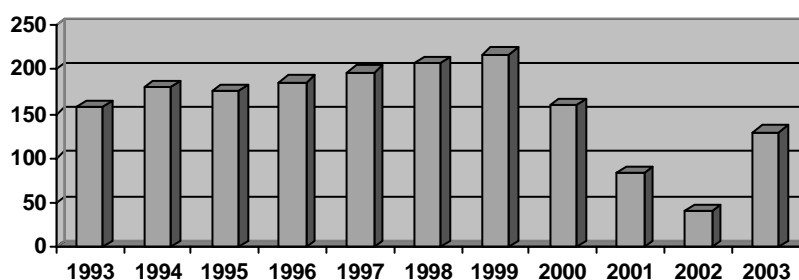
Inspection planning takes into account the restrictions set by Federal Law “On the Protection of Rights of Legal Entities and Individual Entrepreneurs during State Control/Supervision” of 08.08.2001 No. 134-FZ. This law forbids scheduled inspections to be held more frequently than once every two years. Furthermore, it requires that all inspections be announced. This situation does not correspond to practice in OECD countries and was mainly triggered by the need to reduce administrative burden on industries and corruption among government officials.

In order to ensure a sufficient level of environmental protection, the legal limitations on inspection activity should be re-considered. The need for sufficient number of site visits or unannounced inspections should not be regarded as an attack on industry, but an essential element in ensuring the implementation of the law and protecting citizens and the environment. NGOs might assist the environmental enforcement authorities in making this change happen. At the same time, environmental enforcement authorities should become more transparent and accountable for results to the government and the general public that is the only warrant against deals with the regulated community.

Data available from environmental authorities do not allow for defining accurately the actual frequency of scheduled inspections or the share of the regulated community covered by the inspections each year. For example, as of 2005 there was information on some 200 thousand hazardous production facilities in *Rostekhnadzor's* database. During the same year, *Rostekhnadzor* carried out about 50 thousand compliance monitoring activities; however, a large share of them are likely to be repeated unscheduled inspections. Thus, by indirect estimates, inspected hazardous production facilities might account for 10-25 percent of their total number, which might be insufficient for a country where spontaneous law-abidance has always been poor and the likelihood of discovering non-compliance through informal means is negligible.

In general, since 1999 a sharp decrease in the number of inspections has been recorded; some experts consider that this decrease is due to transition to integrated inspection and better prioritisation. While this explanation is quite credible, the new inspection approach was also imposed by a sharp decrease in the number of personnel and legal restrictions to enter facilities rather than being part of a new strategic thinking. Furthermore, due to the absence of facilities and sometimes skills, as well as that of the newly attributed functions to enforce collection of pollution charges, inspectors tend to focus on the verification of administrative aspects of environmental regulation, in particular the timeliness of payments related to pollution charges.

Figure 5. Number of environmental inspections in 1993-2003 in Russia.



Source: World Bank, 2004.

Overall, the compliance assurance approaches emphasise strict rule abidance while many obsolete, unfeasible, unenforceable, and overlapping provisions are in force. Such an approach lowers the public confidence in the compliance assurance system and governmental authorities in general. In this context, awareness has been growing both at the federal and sub-national levels that the tools applied to improve environmental performance must be more diverse and, along with conventional command-and-control tools, they should include, *e.g.* economic instruments and compliance assistance. Also, the need for improving the quality of environmental laws based on feedback from practice has been largely recognised. In conjunction with adoption of performance-oriented budgeting in Russia, it would be beneficial for environmental enforcement authorities to develop compliance assurance strategies with clearly identified compliance targets and better balanced implementation tools.

A first step towards the development of such strategies is a good knowledge of the regulated community. Although the structure of the regulated community has evolved over the last decade, large industrial enterprises continue to be the greatest contributors to pollution from point sources. The number of small businesses in Russia has not really grown since the mid-1990s and the 900 thousand Small and Medium Sized Enterprises (SMEs) that exist generate only about 12% of GDP. The specificity of Russia is the quasi-absence of SMEs specialized in technology intensive activities as the vast majority of Russian SMEs are very small firms, often individual entrepreneurs engaged mostly in trade, construction or services. In general, the importance of SMEs in Russia is not comparable with the European Union⁹ and the regulated community still comprises mostly large enterprises belonging to polluting sectors such as heavy industry or mining. This is linked not only to the heritage of the Soviet economic system, which promoted giant industrial units, but also to the abundance of natural resources, which led to the formation of a rent economy based on extracting sectors dominated by large enterprises.

While the regulated community is relatively well identified, its profile would deserve further analysis. In particular, the roots of non-compliance and the incentive framework for industries to comply with regulatory requirements should be studied.

⁹ European SMEs are a key to deliver stronger growth and more and better jobs - the two main objectives of the new Lisbon Partnership for Growth and Jobs. They make up a large part of Europe's economy: there are some 23 million SMEs in the EU, providing around 75 million jobs and accounting for 99% of all enterprises. They are also a key part of European industry, as they contribute up to 80% of employment in some industrial sectors, such as textile, construction or furniture.

3.3. Compliance assistance

Compliance assistance is not part of the responsibilities of environmental enforcement authorities in Russia and there are doubts whether an enforcement authority should become involved in such activities. It is believed that industry should request compliance assistance from consulting companies on a commercial basis. Therefore, guidance documents for the regulated community are rare and often produced within bilateral cooperation projects with OECD members. At the same time, providing online access to legal acts and regular publishing of news has become a rather regular activity for both *Rostekhnadzor* and *Rosprirodnadzor*. They also subsidize two specialised magazines: *Bezopasnost Truda v Promyshlennosti* [Occupational Safety in Industry] and *Ekologiya Proizvodstva* [Industrial Ecology].

Given the profile of the regulated community this approach seems to make sense. However, in the longer term, the environmental enforcement authorities will need to monitor the evolution of SMEs and be ready for more comprehensive compliance assistance if the number of SMEs or their structure evolved.

3.4. Self-control and self-reporting by enterprises

“Environmental self-control” (also known as “self-monitoring”) can be defined as the system of organisational and technical measures, put in place and financed by regulatees subject to environmental permitting or general binding rules in the field of environmental protection, in order to ensure their own compliance with environmental requirements. The primary goal of self-control is to ensure the earliest possible response to any environmental problem occurring because of malfunctions in production processes and, at the same time, reduce public spending on governmental compliance monitoring. Self-control data provide a basis for verification of compliance with legal requirements and enforcement, and for calculation of environmental or administrative charges. They also help to optimise national, regional, and local ambient monitoring systems, and establish priorities for inspection.

Under Russia’s environmental legislation, industrial operators have the responsibility to ensure environmental self-control and reporting. The new version of the Federal Law “On Environmental Protection” that took effect on 1 January 2006 reads: “Economic and other entities are obliged to provide information on the persons responsible for self-control, on the establishment of enterprise environmental units, as well as the report findings of self-control programmes to a respective executive authority engaged in the state environmental compliance assurance”.

Self-control is usually performed by the operators themselves according to the programmes, schedules, regulations, etc., which should be agreed upon with the sub-national bodies of the environmental enforcement authorities. The self-control programmes are a part of the permitting documentation. In principle, they are valid for five years while sampling schedules are updated annually. An enterprise is obliged to revise the programme should its processes change significantly. The obligation to conduct self-control applies regardless of ownership; uniform self-control requirements are established for public and private companies.

Regulated pollutants can be monitored directly at the source or by determining their concentration in the environment (within the so-called “sanitary protective zone”). The former type of monitoring is intended for controlled point sources of emissions; the latter, for fugitive releases to air, water, and land, non-point sources, and releases from controlled sources where instrumental measurements are impossible. The frequency of emissions monitoring depends on the hazard of each hazardous substance. For example, in Russia, the following frequency is established for ambient air pollutants: 1st category – once a quarter; 2nd

category – twice a year; 3rd category – once a year; and 4th category – once every five years. Also indirect monitoring using surrogate parameters and other means is possible.

Enterprises bear full responsibility for implementing self-control programmes and provide the necessary expertise, equipment, and analytical facilities. Sometimes services are obtained on a sub-contract basis. The costs of self-control are met by the enterprise.

Industrial laboratories must be accredited with the Gosstandart of Russia under the Federal Law “On Technical Regulation” and respective secondary legislation. The accreditation procedure is meant to ensure the reliability of monitoring data. Furthermore, the sub-national bodies of environmental enforcement authorities can impose comparative measurements. Accreditation documents of some industrial laboratories have been revoked when the results of such inter-calibration were not satisfactory.

Data on emissions are used to calculate pollution charges. If releases are estimated indirectly, maximum design estimates are adopted that usually increases the level of charges. Therefore laboratory tests and direct flow monitoring can help enterprises to reduce their costs. For example, modernization of the environmental laboratory of the Angarsk Electrolysis Plant and extending the scope of accreditation to a rather broad range of organic compounds allowed the plant to reduce considerably the charges for those pollutants that had been previously calculated based on their possible generation by the processes. And, conversely, after the change of ownership of OAO «Usolekhimprom», for a rather long time the new owner did not pay proper attention to the levels of mercury compounds released into the water bodies. Inspections conducted by the enforcement authorities involving an independent laboratory determined the real volume of releases of the mercury compounds, after which the amount of pollution charges brought the enterprise to the verge of bankruptcy.

Enterprises are obliged to submit reports on their environmental performance, including forms 2TP – (air), (water), (waste), (contaminated soils), and (charges for adverse environmental impacts). The reports are to be submitted within a certain timeframe (January-early February) to various public authorities: 2-TP Air to the Russian Statistics Agency; 2-TP Waste to *Rostekhnadzor*; and 2-TP Water either to *vodokanal* (for discharges into sewage network) or the basin department (for discharges into surface water body). Enterprise representatives often have to file reports with a respective institution personally, where a note of their acceptance is put on the enterprise’s copy.

Enforcement authorities say they have no major difficulties with getting necessary information from *bona fide* users of natural resources. If an economic entity conceals information intentionally, departmental analytical laboratories get involved in order to confirm an unlawful activity and get a bank of evidence for subsequent penalization of the offender.

3.5. Government capacity to conduct laboratory control of emissions

Eighty-five analytical laboratories accredited by the *Gosstandart* operate within the “Centres for Analytical and Technological Laboratory Studies” (CATLS) subordinate to *Rostekhnadzor*. They exercise comparative control over releases of enterprises according to programmes which usually determine the parameters of control (frequency, types of samples, set of determined ingredients, techniques, etc.). Also, the CATLS are involved in the assessment of environmental damage caused by large accidents and incidents which have adverse impact in the territory of several constituent entities of the Russian Federation.

Since 2005, the CATLS have not enjoyed budget funding and have been forced to ensure revenue from contracts with third parties. For instance, within the framework of self-control, many companies subcontract certain laboratory tests to the CATLS. At the same time, this information can be made available to the sub-national bodies of *Rostekhnadzor*. Despite the efficiency of such a system, it can undermine the confidence of the customers and thus the revenue basis. Therefore, disclosure procedures are necessary which would be clear and acceptable to all the parties.

3.6. On-site visits

On-site visits are conducted consistent with the annual inspection plans and procedures set in the Law on the Protection of Rights of Entrepreneurs. As mentioned above, the new law stipulates that any state agency may carry out no more than one inspection in one firm within two years. Although the number of unplanned inspections remains unlimited, the procedure of carrying them out has been streamlined. Furthermore, inspection procedures are governed by the Regulation on State Environmental Compliance Monitoring registered with the Ministry of Justice of Russia and other relevant regulatory documents. There are no differences in the procedures, frequency of inspections, etc. applied by the central and sub-national enforcement authorities. When an inspection is prepared, prior enterprise notification of the inspection should be envisaged – the list of issues that will be examined during the inspection is brought to its notice; the inspection team is set up; and the inspection timeframe is determined.

In order to visit a site, there should be an official inspection warrant which is registered at the enterprise in a special log book of compliance monitoring activities. The following information is specified in the log book on a mandatory basis:

- Goals and scope of inspection, what enterprise units are involved, which documents are requested, etc.;
- Name of the state enforcement authority;
- Activity date and time;
- Legal grounds for compliance monitoring activity (order, decision, disposition, etc.);
- Outcomes of the compliance monitoring activity, i.e., information about detected violations, prepared reports, and issued orders;
- Surname, name, patronymic, and position of the person(-s) who carried out the compliance assurance activity and his/her/their signature(-s).

The law encourages enterprise management to:

- Assess the compliance monitoring activity for its lawfulness under the current legislation;
- Develop an action plan to fulfil possible comments/order if the inspection is conducted lawfully;
- If the inspection is conducted unlawfully, develop an action plan aimed at protecting the rights and lawful interests of the enterprise (appeal to a higher authority, file a complaint with the prosecutor's office, file a statement of claim, etc.).

Existing restrictions on inspection do not apply to the relations concerning:

- Transport security, environmental security, and sanitary and epidemiological well-being of the railroad transport;
- Control over facilities classified as hazardous under the legislation of the Russian Federation, as well as especially important and sensitive facilities the list of which is set by the Government of the Russian Federation.

Prior to the introduction of frequency restrictions, many (particularly small) enterprises were subject to repeated inspections by several supervisory agencies. Lately, the number of inspections by all of the government agencies has dropped substantially and environmental inspections have the lowest frequency according to data provided by enterprises themselves as part of a comprehensive survey¹⁰.

The following is subject to verification during an inspection – the validity of an enterprise's permits and licenses; environmental performance data; process and technical information; data on the enterprise's financial performance; standards, technical conditions, regulations applied at the enterprise, etc. verification of compliance with the permit conditions is exercised both as desk checks based on the enterprise's reports, walk-through inspection and verification of the technical state of facilities, and sampling involving the CATLS.

Various types of inspection are used. Multi-media inspections constitute a large share of inspections conducted by the sub-national bodies of *Rostekhnadzor*. When non-compliance is detected and corrective measures are prescribed, a follow up inspection is usually scheduled. Unscheduled on-site visits are carried out in the event of:

- Receipt from a legal entity, individual entrepreneur, or public authority of information on emergency, change or disruption of a process, or breakdown of a facility or equipment that might cause direct damage to human life or health, environment, or property of an individual, legal entity or individual entrepreneur;
- Threat to human health or life, environmental pollution, and damage of property;
- Complaints of individuals, legal entities, and individual entrepreneurs, or receipt of other information supported by documents and other evidence of non-compliance.

Every on-site visit must result in an inspection record (control act) stipulating the violation(s) revealed, the legal requirements that have been violated, the cause(s) of non-compliance, and the corrective actions prescribed. Inspection reports are not disclosed to the general public.

3.7. Public information and participation

Various forms of information disclosure are used – articles, press releases, interviews, formal feedback on the issues raised, internet, and special issues of magazines. Officials consider that disclosure of data on violations and violators of environmental legislation is the most effective method of influencing public opinion and creating an atmosphere of social disapproval of violators.

¹⁰ Monitoring the Administrative Barriers to Small Business Development in Russia, www.cefir.ru

In principle, citizens can contribute to compliance monitoring by tracking the performance of industrial facilities through independently compiled emission data or independently assessed compliance/state of environment information. However, a considerable share of the functions performed by *Rostekhnadzor* and its sub-national bodies are considered as issues of national security; therefore, the possibility of involving the public in the *Rostekhnadzor* activities is rather limited due to the need to observe security requirements, including as concerns confidential information. Thus complaints remain the main mechanisms of public involvement in compliance monitoring.

Individuals or non-governmental organizations rarely initiate legal actions against violators – only five such cases were recorded in 2004-2005, and they all were brought by NGOs¹¹. Citizens' enforcement is limited due to a number of causes, including lack of legal knowledge; fear that negative court decisions might be issued thus imposing non-reimbursable expenses; high costs of legal services, etc. In general, many citizens still, as in the Soviet period, seek to redress violations through complaining to executive bodies rather than launching public suits.

3.8. Compliance levels and non-compliance responses

The level of compliance in Russia does not lend itself to precise statistical expression but is judged to be very low. Available data (Table 2) show that the number of violations discovered is equal or higher than the number of on-site visits. This observation, however, has to be carefully interpreted as there might be multiple violations discovered during one inspection and perverse incentives exist to qualify as violation any borderline situation. At the same time, extrapolation would be difficult due to the fact that only a small fraction of the regulated community (often, large facilities causing most environmental and compliance problems) is inspected annually.

Information available from the State of the Environment reports points to a sharp decrease in the number of detected administrative environmental offences in 2001-2002, as well as in 2004, which was most likely due to the major reorganizations of enforcement authorities and reduction in the number of inspectors. Since 2004, due to the reform of the federal executive authorities, the responsibilities for compliance monitoring have been re-distributed and, in consequence, data collection is quite dispersed. This magnifies the problem of data analysis that was already considerably complicated because of multiple contradictions in the officially published information sources.

¹¹ Several network NGOs are active in Russia, including the All-Russia Society for Nature Protection, the Social and Ecological Union, the Russian Green Cross, the Russian Ecological Union, the "Kedr" Environmental Public Movement, and the Russian Ecological Movement. Lately, many local and regional citizens' organizations have been established and engaged in practical activities to rehabilitate the environment. There is a Roundtable of the Leaders of Non-Governmental Associations in Russia which discusses specific issues of environmental policy development and implementation. Many NGOs are faced with major challenges in their activities due to the lack of funding.

Table 2. Major compliance monitoring indicators in Russia (1992-2003)

Actions, thousands	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004*	2005*
Inspections	180	175	185	197	207	217	160	84	41	129	6.8	50.2
Revealed violations	167	228	240	242	268	290	214	94	69	204	4.6	46.5
Corrected violations	157	157	162	170	170	175	125	62	32	117	N/A	N/A
Rate (%) of return to compliance	94.0	68.9	67.5	70.3	63.4	60.3	58.4	65.0	46.4	57.4	N/A	N/A

Note: (*) – Without water and forest-related inspection and violations

Source: Data for 1995-2003: World Bank (2004); data for 2004-2005: State of the Environment Report (2005)

The possible administrative sanctions include: fines; suspension of activity or permits; closing down a facility; damage compensation claims, administrative orders to discontinue the financing of the environmentally hazardous activity; criminal prosecution measures, etc. These sanctions are imposed on a case-by-case basis, depending on the severity of non-compliance. Though the list of tools seems to be extensive, in practice the most common punitive action is financial – through fees and fines. Also, the number of activity suspensions or facility closures is high as many inspectors believe that this is the only kind of sanction that has a strong impact on the regulated community. Criminal cases are referred to the prosecutor's office.

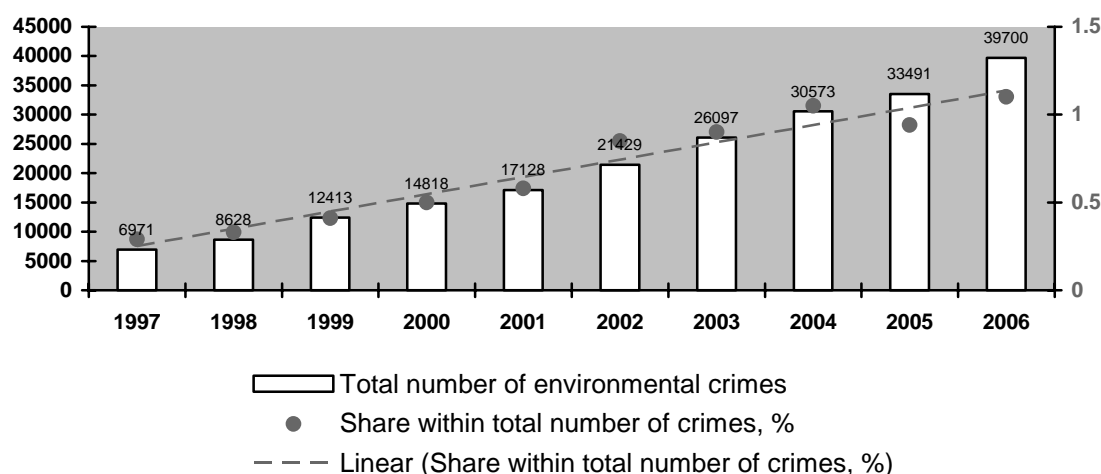
Federal inspectors may use a wide array of administrative enforcement tools. Inspectors of constituent entities of the Russian Federation have no such rights. They can only submit reports on non-compliance to the sub-national bodies of *Rostekhnadzor* or respective law enforcement authorities that are supposed to take further action. Officials and practitioners claim that in most cases enforcement actions lead to correction but this issue needs more analysis to understand whether achieved improvements in the compliance behaviour are sustainable.

Sometimes, enforcement authorities cannot influence an industry due to external pressure. For example, attempts were made for several years to suspend the operation of the company «Karabashmed»; however, the administration of the City of Karabash, Chelyabinsk Oblast, and that of the Chelyabinsk Oblast, permanently took action disrupting the process. The main reason named was employment – it is the only enterprise providing jobs. As a result, a decade ago the City of Karabash was declared an environmental disaster zone and the only – and the dirtiest – enterprise has not yet been brought into environmental compliance. There are cases when environmental policy-makers interfered in the process of environmental enforcement. For example, in Russia the Minister of Natural Resources was very closely involved in the decision-making on the controversial Sakhalin II case¹² that goes against the authorities' goal to pursue a clear separation of policy making and enforcement functions.

¹² The Minister of Natural Resources made several public declarations in relations to environmental compliance by Sakhalin II project developer, incriminating the project developers, led by Shell, for criminal breaches of the environmental law.

In parallel with the weakening of administrative enforcement, the number of recorded environmental crimes more than doubled in between 2001-2006. Increasingly it has taken the form of organised crime. Though there has been a downward trend in the crime rate as a whole, albeit not steady yet, the trend in environmental crime has been exactly the opposite. As a result, the share of environmental crimes in the total number of crimes went up from 0.5 percent to 0.9 percent over the specified period. The rate of resolved cases is very low: 4.9% in 2003, 27.3% in 2004 and 10.2% in 2005. “Green” crimes still dominate the landscape, including due to an easier detection and high priority for authorities. Crime linked to pollution and waste is more difficult to discover or prove therefore its level seems to be “artificially” lowered. Environmental pollution crimes are often recorded only in connection with major industrial accidents. In the field of resources use, organized crime is gaining ground, sometimes involving officials from public authorities.

Figure 6. Trends in the total number of detected criminal offences in Russia, 1996-2005



Source: State of the Environment Reports of the Russian Federation, www.mnr.gov.ru (1997-2005); data for 2006 reflect only 11 months (http://www.gks.ru/free_doc/2006/b06_01/3-4.htm).

Convictions largely depend upon the way specific articles of Criminal Codes are formulated. There is a large gap between the number of recorded crimes under Art. 247 of the Criminal Code, *Violation of the Rules of Shipment of Environmentally Hazardous Substances and Waste* and other articles setting criminal liability for the pollution of water, soils, etc. Article 47 – the only one in the environmental chapter of the code – provides for the criminal liability for posing a threat to the environment. This means that it is easier to prove the threat of causing environmental damage than to establish (and assess correctly) the actual damage. Also there are major annual fluctuations in the level of environmental crime by article. They suggest that, despite significant modification of the law, law enforcement authorities are not prone to holding criminally liable violators of environmental standards and rules.

As regards the environmental crime geography, the number of recorded crimes has been increasing in most regions of Russia in recent years. At the same time, regional differences in the intensity of environmental crime reached a record level by 2005. The highest environmental crime level was recorded in the Astrakhan Oblast, Ust-Ordyn Autonomous Okrug, Buryatia, Sakhalin Oblast, and some other

regions. The lowest level of environmental crime was observed in Saint-Petersburg (just nine crimes), North Caucasus, and Siberia and Far East regions, including the Extreme North. At the same time, experts consider that available region-specific data poorly reflect the real number of environmental crimes and just indicate the varying capacity of governmental authorities to detect them.

Criminal investigations and enforcement have not been particularly effective. The number of unsolved crimes reached almost 50% in 2005. Punishments for the persons convicted of environmental crimes are mostly reduced to fines or a conditional deprivation of liberty. As a result, the deterrent effect of criminal sanctions is low.

Prosecutor's offices play a key role in the process of criminal prosecution. If there are grounds to believe that violation of human and individual rights and freedoms (including environmental ones) is of criminal nature, the prosecutor initiates a criminal case. Alternatively, if the violation does not constitute a crime, the prosecutor makes a decision to dismiss or close a criminal case and initiates an administrative offence proceeding or immediately refers the inspection materials or communication concerning the offence to the body or official authorized to hear the administrative offence cases. Not only do the prosecutors' offices detect environmental crimes, they also supervise the legality of decisions taken by the federal ministries and agencies, legislatures and executive authorities of the constituent entities of the Russian Federation, local governments, military authorities, compliance assurance authorities, and their officials; verify the regulations issued by executive bodies for consistency with laws and perform other functions.

Prosecutors review and verify applications, complaints, and other communications regarding offences, explain to the affected parties the procedure for defending their rights and freedoms, take measures to prevent and suppress violations, to hold liable the persons who violated the law, and to undo the damages. The prosecutor or his/her deputy also files notices of opposition to an act violating human and individual rights with the authority or official which issued the act or goes to court. The prosecutor may challenge a court decision.

In the criminal prosecution, the prosecutor's office acts as a public prosecutor at the court. The prosecutor may participate in the civil trials when the affected party cannot protect his/her/its rights and freedoms at the court or court of arbitration or when the rights and freedoms of a large number of individuals have been violated or when the violation has gained special public profile due to other circumstances. In such cases, the prosecutor produces and supports the legal action in the interests of the affected parties at the court or court of arbitration.

The complexity of the supervision over environmental compliance and need for specific knowledge in the investigation of environmental crimes led to the establishment of a network of environmental prosecutors' offices in Russia. Currently, there are 35 inter-rayon environmental prosecutors' offices within the prosecutors' offices of the constituent entities of the Federation and one inter-regional Volga environmental prosecutor's office (which has oblast-level rights) comprising 15 inter-rayon prosecutors' offices based in the cities on the Volga River. The unique feature of such a prosecutor's office is that it ensures an ecosystem approach to addressing the environmental problems of the entire Volga basin.

For a long period, inadequate attention has been paid to the environmental activities of courts, and only limited analysis of the guidelines of the supreme judicial authorities, decisions of the Constitutional Court of the RF, judicial and arbitration practices is available. However, the capacity of the judiciary to hear

environmental cases directly depends on the legal framework used. Russian practitioners believe that if direct and indisputable evidence is produced of environmental damage and the administrative procedures are complied with, court decisions have a positive effect.

3.9. Performance assessment

The environmental enforcement authorities in Russia monitor over 30 parameters that characterise their institutional performance. These environmental compliance and enforcement (ECE) indicators constitute mostly activity counts and are officially published in annual reports on the state of the environment (SoE) or annual activity reports of the environmental enforcement authorities. Internal reports also contain various “input” and “output” ECE indicators. The ECE indicator data have been routinely collected within a structured framework, with clear procedures, in prescribed formats, and using standard information technology. Regular reporting to internal and external audiences ensured a certain level of operational monitoring and accountability.

The scope of collected data is comprehensive: the ECE indicators cover the entire corpus of environmental legislation and are broken down by media-specific programme areas, both at the federal level and in sub-federal units. Other features include the following: data can be tracked by industry sector and geographic area; non-compliance patterns are analysed by specific articles of the Administrative and Criminal Codes; outputs are relatively well recorded; and sector-specific offences can be easily identified.

Box 11. Key ECE indicators used in the Russian Federation

The key ECE indicators used in the Russian Federation are as follows:

- Number of regulated entities, and of issued licenses and permits;
- Number of licenses and permits checked (total and in cooperation with other federal authorities);
- Number of revealed violations (total and share of violations related to permit/license conditions);
- Non-compliance responses;
- Number of cases submitted to / proceeded by law enforcement authorities;
- Number of criminal cases brought against violators;
- Number of economic (and other) activities suspended, limited, forbidden, etc.

The category of “non-compliance responses” included the following sub-categories:

- Prescriptions issued / implemented;
- Fines imposed (total number and amount, roubles);
- Fines levied (total number and amount, roubles);
- Claims for damage compensations imposed (total number and amount, roubles);
- Claims for damage compensations levied (total number and amount, roubles).

Some other ECE indicators were also monitored:

- Total number of inspectors;
- Actual number of personnel in comparison with the number of officially approved Full Time Units;
- Number of inspections undertaken according to annual plans;
- Number of people made accountable under administrative or criminal law;
- The number of environmental crimes and their share in the total number of crimes.

Source: The Internet page of the MNR, www.mnr.gov.ru

Special emphasis has been placed on establishing the mechanisms for ensuring internal accountability. These include: semi-annual and annual reporting from sub-federal units, operation monitoring by managers, cross-regional analysis of results, agency-wide annual meetings that gathered representatives of all sub-federal units, and missions of federal-level officials to regions. In addition, internal audits are used to identify cases of mismanagement or misbehaviour that are often made known to the general public through the Ministry's web site.

Overall, however, the benefits of ECE indicators have been lower than could be expected given their comprehensiveness. The existing ECE indicators still reflect the traditional approach to compliance assurance which is based on detection of violations and violators and their punishment. The enforcement authority measures the intensity of inspection and the extent of application of enforcement tools not showing the connection between these activities and expected environmental changes. Indicators are designed around monitoring operations and much less attention is paid to the use of indicators in decision making. External accountability has had only marginal relevance; reporting to other stakeholders is not tailored to their needs. A number of other design flaws prevent the enforcement authorities from fully benefiting from such a wide scope of ECE indicators, including:

- The absence of clear goals and targets often resulted in perverse interpretation of ECE indicators, in particular at the regional level. Many indicators that were intended as output indicators came to be used as "targets". For example, in some of the regions the effectiveness of compliance assurance has always been associated with high numbers of inspections, investigated violations, and imposed sanctions. According to this approach, "the more the better";
- The notions and processes used for performance measurement are not standardised which opens up the opportunities for contradictions, mis-interpretation or manipulation of data;
- The ECE indicators do not cover the entire regulatory cycle, in particular indicators that describe compliance assistance are missing;
- Focus is put on "output" indicators with less attention to "inputs" (such as number of staff and the budgets) which does not allow an assessment of cost-effectiveness. Intermediary outcome indicators that would link activities with final environmental outcomes are missing.

KEY FINDINGS AND RECOMMENDATIONS

In 1991, Russia entered the transition period with a poorly developed system of environmental management. Against the background of radical political, social, and economic changes, the country had to address multiple gaps in the national environmental legislation, absorb international legislation, build institutions and provide for a minimum level of environmental democracy. Evidence shows that environmental management in Russia has seen almost a decade of steady development that allowed for addressing many of the above-mentioned challenges.

Since the late 1990s, this process has slowed down. The policy responses in many areas have remained on paper due to a lack of critical success factors, such as realistic objectives, coherent environmental legislation, and effective financing mechanisms. The general framework favouring economic development over the environment has compromised the work of environmental authorities and resulted in widespread environmental non-compliance. The situation has further been worsened by slow progress in engaging sectoral ministries and the general public in addressing environmental problems. Conflicting interests at different levels of the administration and insufficient institutional capacity have prevented environmental authorities from addressing these problems.

Environmental policy planning

The most recent efforts to address strategic environmental planning at the federal level have resulted in the development of the Environmental Doctrine. This document constitutes a clear shift from papers that used to focus on describing environmental problems rather than suggesting priority actions. The Doctrine lists the objectives and priority actions needed to achieve environmental sustainability in Russia. Unfortunately, it remains declarative, *e.g.* it does not establish targets or prioritise planned actions.

The environmental policy instruments have seen many changes, but reforms brought marginal results so far. Recently, the Russian authorities have come to realise the deficiencies of the Soviet-legacy command-and-control instruments. In this context, the reform of environmental quality standards and the permitting system became politically acceptable. This reform is inspired by concepts adopted in the EU but often a peculiar interpretation of these concepts radically changes their original meaning. For example, within the framework of integrated permitting, Best Available Techniques (BAT) are often regarded as a totally independent instrument (and even misinterpreted as a kind of uniform emission standards) while modern regulation of pollution from large facilities relies on a combined use of BAT and environmental quality standards to set facility-specific ELVs.

The overhaul of the old system of pollution charges, which was identified as one of the priorities in previous assessments, has not happened and a few recent improvements hardly change the revenue-raising nature of these instruments. Although pollution charge rates and collection rates have been increased, the increases have been too low to provide incentives for environmental improvements. The natural resource taxes and subsidies remain purely fiscal instruments without any incentive impact due to their low rates

and lack of environment-driven differentiation thus playing virtually no role in promoting sustainable use of natural resources.

The environmental liability system is undermined because of methodologies for environmental damage assessment that are speculative, inaccurate, and too complex to adequately support court cases. Although Russian legislation envisages expert assessment of damages based on actual costs of a selected remedy, the degree and effectiveness of this approach is not clear due to missing empirical studies of the issue.

Legal framework

The environmental legislation has rapidly expanded since the mid 1990s and nowadays it comprises more than 30 federal laws (as compared to only six laws/codes that existed in the early 1990s), and about 200 regulations. Standards and technical norms are scattered across another 800 documents. Many of these documents had been prolonged or amended many times, and a significant part of them is obsolete. The development of new laws and regulations in order to close loopholes and to address new problems resulted in a loss of simplicity and ability to understand what compliance with rules involves. Some norms are unfeasible thus impeding compliance.

The adoption in 2002 of a new Federal Law on Technical Regulation marks a turning point in the development of the regulatory framework. The law promotes a major review of around 60 000 norms and regulations concerning environmental, health, safety and other issues. Many norms that were previously mandatory will become voluntary, while others will be scrapped altogether. Moreover, the law outlines new procedures for proposing, evaluating and adopting new standards and regulations. If implemented in full and adequately, these procedures will make the regulatory process more predictable, transparent and inclusive, facilitating widespread consultation and full assessment of the potential economic impact of new regulations. Unfortunately, progress with the law implementation has been slow so far.

Russian authorities have started to draft the Environmental Code that would establish a more coherent framework for environmental management. This is a positive development that creates opportunities to make the regulatory framework more coherent, result-oriented and cost-effective. Regretfully, neither the *ex-post* nor the *ex-ante* analysis of regulatory impacts is planned within this process therefore a real risk exists that codification will turn into symbolic action rather than changing the regulatory and compliance culture.

Institutions

The major improvements in the institutional framework include the adoption of performance-oriented budgeting, higher transparency in the operation of environmental authorities, and measures to optimise horizontal and vertical organisation. At the same time, environmental authorities have undergone structural changes that have been much too frequent and often coupled with replacements of managers at all levels thus resulting in long transition periods of institutional uncertainty and inaction, as well as loss of qualified staff. Inconsistencies in assigning environmental management responsibilities to various actors within the executive branch are being addressed, albeit slowly. In particular, action has been taken within the public administration reform to clarify attribution of policy-making, regulatory, and compliance functions, and separate them from any economic activity undertaken by governmental agencies. Unfortunately, this process has resulted in excessive fragmentation of environmental authorities.

The vertical organisation of environmental management is evolving. In 2005, in addition to previous environmental management function, Russia has delegated the regulation and inspection of certain segments of industry to the *oblast* and even municipal level thus amending, under institutional capacity constrains at the federal level, a former decision of 2004 to increase the centralisation of these functions. Sub-national authorities in Russia have also become very active in the field of law-making: for instance, the City of Moscow enacted new laws on integrated permitting and environmental inspection, ahead of federal authorities. While some sub-national authorities are advanced, in general, capacities at the sub-national level are low and support for institutional development from the federal level is sporadic.

Environmental compliance and enforcement

The prevailing model of compliance assurance in the Russian Federation can be described as “check and punish regardless of effectiveness and efficiency”. The incentive framework for environmental compliance is not analysed. Fiscal objectives (collection of pollution charges and fines) remain an important driver of these strategies. At the same time, understanding is still low among stakeholders concerning the importance of compliance assurance for economic development, for example, for guaranteeing the level playing field for businesses.

Even though recently the “de-bureaucratisation” process and the adoption of performance-oriented programming and budgeting have been a high priority in Russia, this model has not been changed significantly. However, some modern features have been put in place, *e.g.* environmental authorities are proactively using mass media to promote public disapproval of environmental non-compliance. Also, the social pressure on regulatees has increased due to NGO activism, *e.g.* introduction of various rating schemes to assess and disclose industry’s environmental performance.

The government identifies full obedience with regulatory requirements as the overarching goal of compliance assurance. Observance of environmental requirements by the regulated community is indeed at the core of inspectorates’ mission worldwide, but in Russia the focus on rule compliance alone might be counter-productive because of existing flaws in the regulatory design and a declared but selectively applied “zero tolerance” approach.

Among non-compliance responses, fines are predominant. They are becoming more stringent but their collection rates are still unsatisfactory. Damage compensations are imposed but hardly levied. As a result, authorities make frequent recourse to such radical tools as the temporary closure of enterprises or withdrawal of permits. Sometimes, criminal cases are transmitted to law enforcement authorities but only a small fraction of them end by being accepted by courts. In general, the quality of criminal enforcement has not evolved and the number of recorded crimes is steadily increasing. This is happening against the background of an insignificant probability of discovering violations due to legal restrictions that limit the frequency of planned inspection to one site visit every two years and the ban on unannounced inspections that aimed at fighting corruption and reducing the administrative burden on industries. Another cause stems from low capacity to monitor compliance.

To promote compliance, the environmental authorities have improved the access to laws and selected by-laws through their websites. Other forms of compliance promotion (*e.g.* provision of informational materials or training for industry) exist but their use is not systematic. Voluntary initiatives beyond compliance are still rare although the use of environmental management systems has widened and several large companies have introduced corporate environmental reporting. In the same vein of compliance

promotion, Russia improved the legal basis for the compliance monitoring and reporting by enterprises themselves. Unfortunately, clear legal provisions on the parameters and frequency of monitoring do not exist. This pushes environmental authorities to impose all-encompassing monitoring that is expensive and unattractive for companies. Reporting remains administratively cumbersome: in contrast with permitting, this problem has hardly received any attention within the “one-stop shopping” approach to regulation that has been actively promoted.

Major interventions in specific policy areas

Overall, lawmaking has continued to dominate government interventions across all policy areas. At the same time, enforcement has received more attention, particularly in relation to water use and protection. Important changes have occurred in several policy areas:

- **Land management:** In this area, environmental regulation of private land ownership and urban planning has been improved. Public financing has been provided for the rehabilitation of radioactively or chemically contaminated land. Securing funding for earmarked programmes to restore the fertility of agricultural land is considered a priority for future action, since the degree of land degradation (70 per cent of agricultural land is under pressure) is considered as threatening to national security¹³. Also, experts are calling for the introduction of more restrictions on the use of pesticides and agrochemicals. The implementation of these measures will require a better sectoral integration, which is extremely limited at the moment.
- **Water resources management:** Since 2000, several legal acts have been enacted to provide for improved mechanisms of water resource use, and a new version of the Water Code was passed in 2006. The enforcement against violations of water legislation (illegal construction in the water protection zones, pollution of water bodies during industrial activities) has intensified.
- **Management of biological resource:** Policies in this field have evolved at a steady pace – the Federal Law on Fishing and Protection of Water Biological Resources has been enacted; the Forest Code is being revised, and regulations on the protection of fauna, its habitat, and forests have been updated. Although the number and surface of protected areas have been growing, attempts to “convert” the territory of protected areas into industrial or residential sites are still widespread. In many cases, competent authorities manage to settle the conflicts and ensure compliance with legal requirements. In some cases, for example as concerns the intrusion of a trans-continental pipeline into the territory the Baikal protected area, personal intervention by the President of Russia was necessary to enforce the environmental law (in response to concerns voiced by NGOs). This fact, unfortunately, attests not so much to the President’s environmental awareness as to the inadequately developed environmental law enforcement institutions and poorly implemented public consultation mechanisms.
- **Ambient air quality:** Growing industrial production in Russia triggered higher emissions from stationary sources of pollution. Against this background, policy instruments for air pollution prevention and control remain inefficient, despite their long-lasting use. While the Government

¹³ For example, desertification has affected territories of 27 constituent entities of the Russian Federation where about 50 percent of the country’s population lives and more than 70 percent of its agricultural output is produced. Soil is polluted with heavy metals in 6.5 percent of the localities surveyed.

has issued a number of legal acts and financed earmarked programmes of **ambient air protection**, their effect is low due to their detachment from sectoral strategies in the area of energy, industrial development, transport and urban planning.

- **Mineral resources use and protection:** A very intense extraction of mineral resources, primarily hydrocarbons, has been accompanied by a decrease in the level of protection of subsoil, a widening number of offences and corruption, lacking access to information on the use of mineral resources and distribution of profits, etc. The regulatory framework is subject to frequent change and, therefore, the costs of environmental compliance are often unpredictable thus increasing the investment risks.
- **Waste management:** In this field, the regulatory framework remains under-developed, particularly as concerns handling of hazardous waste. A poor functioning of utility services and obsolete infrastructure causes difficulties with collection, recovery, storage, and disposal of both hazardous and municipal waste. Transport of waste is hardly regulated. Some constituent entities of the Russian Federation pass regulations and develop earmarked programmes in order to improve waste management. Radioactive waste management proved to be a controversial issue. In 2002, the Russian authorities decided to authorise the import and processing of radioactive waste in order to generate revenues for de-contaminating areas exposed to radioactive pollution in the past. This decision generated a lot of public opposition but, nevertheless, was implemented. Four years later, in early 2006, the Committee for Environment of the State Duma voiced concerns about the limited benefits of that decision; nevertheless, banning of further imports is not envisaged.
- **Protection and use of resources of the continental shelf and marine environment:** Over the past six years, the specialised regulatory and enforcement authorities have been restructured; their responsibilities and subordination have been re-distributed. Also, the legal basis for licenses, which determine total allowable catches and quotas for fishing and extraction of other aquatic biological resources, has been improved.
- **Quality of production and products:** In this field, the legal framework has been developing gradually over the last years and new requirements have been enacted with regard to technical regulation, industrial security, safety and quality of foodstuffs, medicines, safe utilization of genetically-modified organisms, etc. Federal-level law-making has been complemented by similar efforts at the sub-national level, as well as the producers' initiative to set up voluntary certification associations. A transition to the international standards has been underway.
- **Cross-cutting issues:** Priority is given to improving environmental quality standards and approaches for setting the Emission Limit Values, as well as the related system of environmental assessments (including tools such as environmental impact assessment, state environmental review, and permitting). A comprehensive reform aimed at streamlining and simplifying the whole regulatory system has been the main driving force for improvement in this area.

Possible ways to reduce the implementation gap

Reducing the implementation gap, in particular at the sub-national level, is one of the major challenges in improving environmental management and, ultimately, environmental performance in Russia. To address this challenge, the Russian authorities may want to consider developing a reform package that would include the following actions:

- **Overcome the declarative character and fragmentation of environmental policy making.** Modernising the environmental policies in Russia requires a stronger focus on outcomes and, respectively, on the identification of specific targets, actions to achieve them, and sound financing strategies to enable policy implementation. The government needs to address the fragmentation and lack of coherence in the environmental policy planning and strengthen linkages between reforms of individual policy instruments. Further improvement of the instruments of direct regulation is required, primarily the system of environmental quality standards, EIA and permitting, with full understanding of the models used for reforms. A radical change of economic instruments is needed, in particular separating the incentive objective of the system (charges for a few target parameters) from the revenue-raising one (*e.g.* by introducing a product charge on motor fuel). Development of sound methodologies for damage assessment should support further promotion of environmental liability. In procedural terms, authorities need to increase the transparency, stakeholder involvement, and accountability of the policy-making process.
- **Ensure a high quality legal framework.** The environmental authorities of Russia face very challenging demands from various stakeholders to meet their interests that are often conflicting. Such demands can only be satisfied within a transparent regulatory regime that provides real incentives for businesses and individuals to improve their environmental behaviour. Therefore, the second cycle of environmental lawmaking, in particular the codification of environmental laws, should produce requirements that are ambitious, but also fair, feasible and clear. To this end, an effective use of the Regulatory Impact Analysis and meaningful stakeholder consultations should be ensured.
- **Improve compliance assurance strategies and use compliance assurance tools more effectively.** In this field, the challenge is to design strategies on the grounds of a better knowledge of the profile of, and incentive basis for, regulatees to comply. Primarily, environmental enforcement authorities in cooperation with their non-governmental partners should promote compliance through awareness raising and social incentives for better environmental behaviour. At the same time, the legal framework should allow, when necessary, unimpeded access to facilities, including a risk-based frequency of inspection and unannounced inspection, as well as a strict and timely response to non-compliance. Self-monitoring and self-reporting by enterprises themselves need to be optimised. Voluntary schemes need to be promoted whenever possible.
- **Fully implement the key principles of environmental federalism and strengthen the institutional framework for environmental management.** The accomplishment of policy goals is also contingent on institutions, including the features of decision-making and stakeholder cooperation. The need for a true institutional reform was overlooked at the beginning of the transition and to date, the notion of “institution” is still associated with structures and organisation charts, rather than strategies and working methods. In order to do so, environmental authorities need to put more emphasis on performance-oriented planning and management,

clarifying relations between different actors and levels of government, and mobilising further public support for the environment. Development of better procedures and guidance, extensive training for staff and modernisation of facilities are also important, as are adequate levels of staffing and budget allocation – at both federal and sub-national level. Given the frequent regulatory capture by local administration to pursue economic development at any price or to favour certain companies, it might be prudent to keep the implementation of regulatory and enforcement functions at the sub-national level under close monitoring by the federal government. Mechanisms for continuous training of staff should be established to enhance the professionalism of environmental authorities. Selected training institutions could become centres of excellence. At the outset, however, the government needs to address the institutional instability and fragmentation of environmental authorities and their poor staffing.

- **Empower stakeholders to act as partners of governmental authorities.** The environmental authorities will need to assume the role of catalysing and facilitating the participation of commercial and non-commercial third parties, which may act as partners during the policy development and lawmaking phases, as well as to become indirect enforcers. Such third parties range from industry associations through financial institutions to citizens' environmental and other pressure groups. To this end, it will be important to raise the transparency of policy making, regulation, and enforcement.

In addition, Russian authorities may want to look back at the recommendations provided in the 1999 Environmental Performance Review, conducted by the OECD, as they are still valid. Another set of recommendations can be extracted from the World Bank report on environmental management in Russia.

Taking account of reform barriers

There are external barriers that could prevent meaningful reforms in the field of environmental policy and regulation in Russia. First, these include political constraints, such as opposition from powerful line ministries and misinterpretation of better regulation as de-regulation, which is strongly backed by intensive lobbying from industry. There are social and competitiveness concerns related to ambitious environmental regulation and increased resource pricing. More generally, the Russian Federation still needs to build a basic framework of democratic governance: the rule of law; checks and balances between the executive, legislative, and judiciary branches; public scrutiny of government action; meaningful autonomy for local government; and an independent (and truly active) civil society.

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