

ANALYSIS OF SYSTEM OF ENVIRONMENTAL ENFORCEMENT AND COMPLIANCE INDICATORS IN THE RUSSIAN FEDERATION

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1 INTRODUCTION

In the Russian Federation, government's regulatory functions include environmental enforcement, which is defined as a comprehensive system of activities carried out by competent authorities to assure compliance with environmental legislation (including statutory requirements, rules, and standards). Recently, competent authorities responsible for the enforcement of environment protection legislation have been merged with those dealing with the use of natural resources. Since 2001, the Ministry of Natural Resources of the Russian Federation (MNR of Russia), a federal executive authority, administers the environmental enforcement system. Prior to 2001, the environmentally-related enforcement functions were performed (at various points) by three or four agencies, which managed the use of individual natural resources (water, forests, mineral resources) and the protection of the environment against pollution and degradation of ecosystems.

In order to perform its enforcement functions, the MNR of Russia has a State Service for Control over Use of Natural Resources and Environmental Protection (*Rosnaturecontrol* of the MNR of Russia). *Rosnaturecontrol* of the MNR of Russia performs only inspection and, to some extent, information functions. No other regulatory functions, such as lawmaking, permitting, licensing, environmental management or accounting, falls under the responsibility of *Rosnaturecontrol*.

The organizational structure of environmental enforcement is determined by the current legislation and comprises:

- Control over use and protection of land (including soils);
- Environmental control at sea and offshore (including control over use and protection of wildlife and natural resources at sea and offshore);
- Control over air protection (including ozone layer);
- Control over use and protection of fauna;
- Control over the management of protected areas;
- Control over waste management; and
- Control over compliance with licensing requirements.

The enforcement of legislation related to the use of water resources, forests and underground (mineral) resources are traditionally seen as separated from environmental enforcement. This separation has been quite subjective and could be explained by the family tree of legislation and institutions over several decades. Nowadays, all prerequisites are in place to integrate the various branched of environment-related enforcement, and to concentrate them in a single federal executive agency. This is well demonstrated by the integrated approach towards inspection that was embraced by *Rosnaturecontrol* in recent years.

Officials of the MNR of Russia, known as "federal governmental inspectors," assess compliance with regulatory requirements. There are approximately 2,400 inspectors at present, of which about 1,500 are environmental inspectors and others are geological, water, and forest inspectors.

The organisational structure of the *Rosnaturecontrol* comprises:

- Subdivisions of the Ministry's federal office: Department of Organization and Administration of Public Control over Use of Natural Resources and Environmental Protection, and Division for Control at Sea and Offshore (about 40 staff members);

- Inspection units in seven departments of public control and long-term development in the field of use of natural resources and environmental protection (DPCs) in the federal regions of the Russian Federation (50 to 70 inspectors in each department);
- Inspection units in eighty-nine Main divisions (Divisions) for Natural Resources and Environmental Protection (MDNRs/DNRs) in the constituent entities of the Russian Federation (15 to 25 inspectors in each Main Department, and 10 to 15 inspectors in each Department);
- Inspection units in sixteen Water Management Departments (three to four inspectors in each WMD);
- Nineteen specialized sea inspectorates (a total of 500 staff members).

In addition, under the Federal Environmental Protection Law, executive authorities of the subjects of the Russian Federation are authorized to conduct compliance monitoring. The scope of activity of federal and sub-national inspectorates depends upon the authority to check a certain type of regulated facility, rather than upon specific functions (the largest facilities, which have environmental impact in two or more constituent entities of the Russian Federation, as well as those administered at the federal level under the Constitution of the Russian Federation, are subject to the federal control). Facility distribution criteria are set forth by a government regulation. However, the absence of similar provisions in the laws on protection of specific media (air, water, land, etc.) hampers the implementation of this principle of division of responsibilities.

It is expected that the administrative reform underway will expand the principle of division of responsibilities between federal and regional executive authorities to all forms of enforcement. It is expected that laws and regulations governing this issue will be amended accordingly.

1.1 Types of Inspection

Inspections carried out by the staff of the MNR of Russia can be routine (i.e. conducted under an annual plan approved by the head of a relevant body of the MNR of Russia and coordinated with a higher body of the Ministry) or reactive. Routine inspections account for 60 to 75 percent of the working time. Reactive inspections are usually carried out following orders by supervisory bodies (such as the Public Prosecutor), inquiry of a Member of Parliament, request/complaint of a legal entity or natural person, in connection with criticism in mass media, or if negative impact on the environment is detected and requires urgent intervention.

Inspections can be integrated or targeted. Integrated inspections cover all aspects related to the use of natural resources and environmental protection; targeted inspections focus on specific areas. Recently, most scheduled inspections have been integrated, except for the follow-up inspections. The share of integrated inspections in the number of unscheduled site visits is much lower.

Also inspections can be facility-specific or carried out as part of specific enforcement campaigns. During a facility-specific inspection, activities of a concrete user of natural resources are checked for compliance with certain general binding requirements and permit conditions. Enforcement campaigns aim to detect violations of specific legal requirements by the whole regulated community, or parts of it, which are not identified in advance (e.g. annual campaigns "Clean Air," "Water Body Sanitary Zone," "Unauthorized Dumps," and others).

1.2 Inspection Reports and Inspection Follow-Up Documentation

The format in which inspections are to be documented is set forth by the legislation of the Russian Federation. An individual executive document (order, decree) is issued for conducting each inspection. After each site visit, the inspector prepares a report, and, should violations be detected, they are recorded in this report. An injunction to remove the violations

detected during the inspection can be put issued, as a stand-alone document or as part of the inspection report.

If the violation has signs of an administrative offence, the inspector would prepare a record of administrative offence and issue an order to hold administratively liable individuals guilty of environmental violations. In some events, an injunction to suspend or limit facility operations is issued. In the event of a significant (or systematic) offence, an order for shutting down is drawn up. For the criminal offences, materials are prepared and submitted to the police authorities. In the event of failure to fulfill the prescriptions, the materials are referred to the court or the public prosecutor. All inspection and enforcement-related documentation is registered with the body of the MNR of Russia.

2 DESCRIPTION OF PERFORMANCE ASSESSMENT SYSTEM

2.1 Frequency and Content of Reporting

Efficiency of inspections conducted by the regional bodies of the MNR of Russia is analyzed based on the information provided in the semi-annual and annual reports. Reports of the MDNRs are first summarized in the relevant DPC and then submitted to the supervisory subdivision of the head office of the MNR of Russia. Reports of the water management departments are also submitted there directly. Reports of the specialized sea inspectorates are submitted to the Division for State Control at Sea and Offshore of the MNR of Russia.

Recently significant attention has been paid by the MNR of Russia to the creation of modern information systems to support inspection activities. For example, there are plans to make all data of the regional bodies available in the near future on-line at the federal level (head office of *Rosnaturecontrol* and DPCs). This will ensure rapid access to inspection results.

The content of the inspectorates' reports is not standardized; however, they need to be consistent with the annual report on the state of the environment. Their compulsory elements are: the inspection indicator tables (the so-called 1-GK form) and data on current operations.

2.2 Inspection Indicators

The main quantitative indicators are: number of inspections, number of detected violations, number of issued and executed injunctions, number and amount of imposed and levied fines and other administrative penalties. These indicators ensure the accountability of inspection and are published in the state environmental reports. Semi-annual and annual reports include several other indicators.

In addition to summary data, information is broken down by sectors. For example, as regards control over air quality, information is provided for seven groups of facilities: (1) power generation facilities; (2) industries; (3) agricultural facilities; (4) transport facilities; (5) housing and community amenities facilities; (6) military, defense, and secure facilities and institutions; and (7) other facilities.

Box 1. Annotated list of enforcement and compliance indicators in the Russian Federation

Number of **regulatees (legal entities) accountable to a supervisory body**, total and for each area of supervision. This indicator cannot be very precise for objective reasons, firstly, due to intensive process of creation, merger, and liquidation of legal entities, and, secondly, due to delayed registration or application for permits.

Number of **control units by field of control**. This reflects the potential workload during an inspection, proceeding from the need to check compliance with all required authorizing documents in the field of use of natural resources (emission permit, license to use mineral resources or water, wood-cutting ticket, or land allocation deed). Different facilities would need different types of authorizing documents therefore the value of this indicator will vary among the regulated community and inspectorates.

Specific sets of indicators are provided for the following areas of inspection: ambient air protection; protection of land and peat; use and protection of bio-resources (flora and fauna, hunting, and state of the national parks); waste management; construction, reconstruction, and upgrade of production processed (enforcement of legislation on state environmental review).

Number of **conducted inspections**, the value of this indicator is determined according to the number of legal entities, the inspection of which is documented by special orders.

Number of **facilities inspected over the reporting period and control units checked for compliance**, total and broken down by the aforementioned areas of inspection.

Number of **detected violations**, total and by specific article of the Administrative Code, and injunctions issued.

Number of **prepared records** on the violation of legislation.

Number of **finances** imposed for detected environmental violations and the number of levied fines and their amounts.

Number of filed **claims** for environmental damages and the number of levied claims and their amounts.

Number of **lawsuits filed with investigating authorities** to initiate a legal action and number of cases **referred to the Public Prosecutor**.

Number of **rulings to suspend or limit an operation**.

Total number of **inspectors, their breakdown by age and background**.

Source: MNR of Russia (2004).

As regards control over waste management, information is available for five groups of facilities:

- Landfills for solid household waste, authorized dumps;
- Landfills for industrial waste;
- Sites with sludge storage, tail-end storage, terricones, etc.;
- Facilities engaged in storage and processing of waste, including highly hazardous waste; and
- Other facilities.

The inspectorates' performance is assessed by comparing absolute indicators. However, it is more common to use specific indicators. In order to conduct a comparative analysis of various supervisory authorities and study the dynamics of absolute indicators of inspectorates' performance and results of managerial decisions, ratios of absolute inspection indicators are calculated. They may include ratios of detected violations to the number of

conducted inspections or percentages of violations by type. In addition the ratios of the number of violations related to absence of authorizing documents to the total number of controlled facilities or ratio of detected violations of certain permits to the total number of accounting units of oversight of a given type can be calculated. Percentages of detected violations in the areas of land protection, air protection, waste treatment, fauna, and compliance with the environmental review legislation are also analyzed. Indicators for performance of individual inspector are practically not used.

2.3 Information Flows

All reporting is submitted by e-mail and in hard copies. At the regional level, a report is developed, which is forwarded to the MNR of Russia and relevant DPC. The received reports are summarized (from six for the Urals Federal Region to nineteen for the Central Federal Region). In addition to the reports from the MDNRs/DNRs, water management departments, and specialized sea inspectorates, the MNR of Russia also receives summaries of seven federal regional reports. On this basis a summary report on *Rosnaturecontrol's* activities is prepared.

2.4 Data Users

Management of *Rosnaturecontrol* and the MNR of Russia are the key recipients and users of information about inspection results. Information about inspection activities also plays an important role when performance of the MNR is assessed by the Government of the Russian Federation. The results of analysis of *Rosnaturecontrol's* inspections activities are used to prepare materials for the Public Prosecutor of the Russian Federation and mass media.

3 ANALYSIS OF PERFORMANCE ASSESSMENT SYSTEM AND POSSIBLE AREAS OF ITS REFORM

3.1 Strengths of Existing System

The existing system of assessment of inspection activities has a number of strengths, such as, primarily, the possibility to assess the intensity of inspections, analyze the structure of offences, and study the indicator trends. Assessment of the inspectorates by area (air protection, land control, etc.) helps prioritize the environmental problems and determine the sequence of problem-solving. Analysis of the indicators as a whole helps make conclusions on the staffing and the needs for structural changes.

Furthermore, the current system offers the following benefits:

- **The possibility to assess the intensity of inspections:** Currently used indicators of inspection intensity (number of inspections, frequency of inspecting individual facilities) are helpful in making decisions on compliance assurance strategies and tactics, assessing the results of such decisions and adjusting them, as well as prioritizing law-making activities.
- **The possibility to analyze the structure of offences:** Analysis of the content of rulings on liability and compilation of statistics pursuant to the articles of the Administrative Code, which specify types of violations and applied penalties, help make conclusions about the nature and frequency of offences. The information obtained allows the identification of the frequency of application of individual articles, as well as to adjust the inspectors' work.
- **Possibility to analyze sector-specific situation:** Comparative analysis of inspection performance indicators for specific groups of facilities allows, first, to keep track of developments in the sectors, which is crucial at the current stage of uneven recovery or decline in various sectors. Secondly, such an analysis helps take into consideration the experience of inspection activities gained by individual regional authorities from control over specific categories of facilities in order to replicate it

throughout the system of *Rosnaturecontrol* and use it in the inspector refresher-training system.

- **Possibility to analyze time series:** Analysis of enforcement and compliance promotion performance indicators is used broadly and allows comparing the indicators for current six months with those for the past periods. Long-standing practice of using the same indicators in various organizational systems of control, the way it has been in Russia over past years, is an important informative tool for decision-making purposes. Comparison of the number of violations relative to the number of conducted inspections is one of the examples of indicator dynamics analysis. This indicator has been used to implement the strategic decisions of the MNR aimed to enhance the comprehensive nature of inspection, reducing the total number of inspections.
- **Possibility to identify and assess local problems:** The system of applied inspection indicators allows assessing problems, which occur at the local level, prioritize them, and find ways of solving them. Assessment of the level of staffing of individual area authorities broken down by detected violation (taking into consideration the composition of use of natural resources within the scope of a given authority) is an example.
- **Possibility to use for program objectives:** Existing indicators generally allow to engage in short- and long-term planning within the framework of the public oversight system, assess the intensity of operation of individual supervisory authorities, determine the composition of offences, identify the most common and dangerous offences, identify facilities and sectors in need of priority attention on the part of supervisory authorities, and identify loopholes in the legal and regulatory framework for inspection activities, as well as the shortcomings in the setup of authorizing activities.

3.2 Shortcomings of Existing Approaches and Possible Improvements

The set of indicators used in *Rosnaturecontrol* of the MNR of Russia focuses largely on assessing the intensity of operation of inspectors and supervisory authorities, including the intensity of application of punitive measures and penalties for violations. The preventive effect of inspection activities is practically not assessed. The area of violations related to ignoring a binding requirement to obtain a permit (latent violations) is taken into consideration inadequately.

Unfortunately, the traditional indicators reflect largely the inspectorates' activities *per se* and do not allow identifying the degree of achievement of the main objective, i.e., they do not allow assessing performance as regards environmental improvement. The most important inadequacies of the existing system of assessment of inspection activities include the following:

- **Lack of analysis of quantitative indicators of environmental impact and state of environment in the impact area of inspected facility:** Positive development in the state of environment is the main target of inspection activities; therefore, dynamics of environmental impact indicators resulting from the execution of inspectors' specific injunctions is a priority indicator, which should be introduced in the inspection assessment practices. In the existing system of inspection assessment, the indicators of the state of environment are not taken into account. It can only be introduced if the environmental monitoring system is in place, and it requires fundamental long-term and costly study of relationship among the inspection activities, environmental protection activities carried out by the regulated community and the dynamics of indicators of the state of environment. The Russian Federation could only take such an approach at the level of local pilot projects. However, given the system of rate-setting adopted in the Russian Federation, dynamics of the ratio of

temporary emissions to total emissions could serve as an indicator of developments in the composition of negative environmental impact.

- **No assessment of inspection-planning validity:** Until recently, the number of facilities subject to environmental inspections has been several times higher than the actual capacity of the supervisory authorities. The share of facilities inspected annually was about **0.1** percent of the total number of facilities. It did not seem possible to ensure a rational planning system in such conditions. Moreover, it was impossible to organize an accounting system for the inspected facilities. With the introduction of the principles of dividing inspected facilities between the federal and regional supervisory authorities which happened together with an introduction of an electronic system of accounting for the economic entities and accounting units of oversight, prerequisites are created to implement research-based principles of inspection planning and, therefore, to assess the degree of implementation of such principles.
- **Impossibility of assessing the degree of implementation of inspection plans:** Total “impersonal” numbers describing performance over a certain period allow for concealing the facts of failure to implement a plan by replacing the inspection of “complicated” facilities with that of the facilities, which are simpler from an inspection viewpoint. At the same time, the total number of conducted inspections matches the scheduled number. Such replacements might be not only due to the shortcomings in the planning and management of an area authority, but also due to objective economic causes (inadequate or untimely funding or excessive load of unscheduled inspections by order of higher authorities). These factors can be taken into consideration by implementing an electronic system of accounting for inspection activities.
- **Impossibility of assessing the inspection quality:** “Inspection quality” should be understood as the extent to which the inspections detect committed violations, degree of validity and objectivity of imposed requirements and penalties, and extent to which the principles of consistency and coherence are implemented in the inspection activities. All of these indicators are qualitative by nature and they do not have numerical values. However, it is possible and necessary to develop a system of quantitative indicators, which would help indirectly assess the quality of inspections, with subsequent transition from a system of indicators to uniform scoring of the inspection quality.
- **Impossibility of assessing the importance of detected offences:** This problem could only be solved by the introduction of a system of “surveillance” inspections conducted by higher supervisory authorities with regard to the economic entities already inspected by a lower authority. The implementation of this assessment method could be hampered by a number of limitations set by the Russian legislation on the protection of rights of legal entities and entrepreneurs during the administration of public oversight/surveillance.
- **Impossibility of assessing the adequacy of imposed penalties and observance of the principle of inevitable punishment:** These indicators are also elements of “inspection quality” assessment; however, they can be assessed without “surveillance” inspections based on selective or continuous analysis of the documents prepared based on the inspection results. A share of decisions taken by the inspectors of an area authority which should be revised (modified, or tightened), in the opinion of the officials engaged in the surveillance, could serve as a quantitative indicator.

- **Impossibility of assessing the response of the inspected community to inspections:** A system of assessment of the inspected community's response to the inspections is an extremely important integrated performance indicator of supervisory authorities. It describes the results of their activities through generalized indicators describing the behavior of the inspected facilities. This system of indicators should cover: the number of claims filed with the court and challenging the decisions of the supervisory authorities, including those satisfied by the court; the number of complaints lodged with higher authorities the share of offences eliminated voluntarily and within a set deadline; and injunctions enforced through court. It should also cover the amount and composition (permitting, design and implementation of environmental activities, expert examinations, organization and administration of process control, environmental insurance, environmental audit, remuneration and training, funding of research and advocacy in environmental protection, etc.) of costs incurred by users of natural resources in connection with the injunctions of a supervisory authority.
- **Impossibility of assessing the socioeconomic implications of inspections:** Socioeconomic implications should be understood as change in quite a broad range of qualitative and quantitative indicators describing the socioeconomic conditions in a region within the scope of a given supervisory authority: from the relative investment attractiveness of the region and cost of housing in the impact area of the inspected facilities to the level of awareness of the general public about the activities of the authority and their support for such activities, including the willingness of the general public to participate in the environmental actions initiated by the supervisory bodies. This set of indicators should draw upon opinion polls and dynamics analysis of individual most environmentally-dependent indicators of the economic, sanitary, and epidemiological conditions in the region.

4 PRIORITY MEASURES TO IMPROVE INSPECTION ASSESSMENT SYSTEM

4.1 Sequence of Actions

A program of improvement of the system of public environmental oversight performance indicators could comprise the following stages:

- Set specific objectives regarding the inspection management system improvement, which should be described by the quantitative indicators (comparative analysis of area authorities' performance; optimization of the number of staff inspectors; enhancement of inspections' efficiency; and improved image of the inspectorates);
- Build a system of quantitative and qualitative indicators, describing the current condition of the inspection system from the viewpoint of a specific objective and allowing to assess the extent to which it has been achieved;
- List supervisory authorities and officials involved in the development and testing of a system of indicators;
- Establish a system of indirect quantitative indicators, taken into account when determining qualitative indicators on a scoring basis;
- Establish the terms interpreted unequivocally (starting from *inspection*, *offence*, *injunction*, *eliminated offence*, etc.), determine the meaning, content, and assessment technique for each used indicator;
- Develop the composition of reporting provided by each project participant;
- Assess the current condition of inspections for all the indicators expected to be tested during the project (including those used in the national public oversight system); and
- Based on the reported information, carry out continuous analysis of, and identify problem areas in, the inspection activities, as well as develop programs, environmental plans and determine necessary level of funding.

4.2 Important Issues to be Considered

Reform of the performance assessment system should take into account:

- Number and composition of the inspected community;
- Number of staff inspectors;
- Specific features of the national/regional environmental and administrative legal framework;
- Results of monitoring of the inspected facility's environmental impact and environment around the facility;
- Financial and economic (unrelated to penalties) aspects of inspections and their results;
- Public statistical reporting of the entities engaged in the use of natural resources and subject to inspections;
- Results of environmental and environmental impact monitoring; and
- Ensuring the uniformity of laboratory testing methods.

4.3 Eventual Impediments and Problems of Implementation

The implementation of the improved system of indicators (and, to some extent, its testing) might be somewhat limited by the provisions of the legislation of the Russian Federation on the protection of legal entities' rights during the administration of public oversight (in particular, ban on conducting the inspections more often than biannually), as well as by possible major changes in the public environmental oversight procedure and powers of public environmental inspectors due to the administrative reform.

The following might be major forecasted problems during the implementation of the public oversight indicators system project:

- Low reliability and representativity of available data;
- Major and poorly formalized influence of structural and organizational differences in the inspected community in various regions involved in testing the indicators;
- Low reliability of information reported by industries on the level of their environmental impact and efficiency of environmental activities and their costs; and
- Limited financial capacity of supervisory authorities and their poor logistic support (laboratories, computation techniques, etc.).