

# **ANALYSIS OF SYSTEM OF INDICATORS FOR INSPECTION ACTIVITIES IN THE REPUBLIC OF BELARUS**

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## **1 ORGANIZATION OF PUBLIC ENVIRONMENTAL INSPECTION**

The Republic of Belarus has a system of the public oversight of the implementation of environmental regulations. The system covers control over the use and protection of land (including soils), mineral resources, surface and ground waters, air, ozone layer, forests, flora and fauna, specially protected natural areas, typical and rare natural landscapes, climate, as well as waste treatment. The control is administered by approximately 500 staff inspectors of the Ministry of Natural Resources and Environmental Protection (hereinafter "Ministry"). According to the administrative structure of the Ministry, there are seven regional agencies: the Minsk City environmental committee and six regional committees for natural resources and environmental protection. Sixteen to twenty-two regional inspectorates are subordinate to each regional committee.

The existing system of inspection relies on the assessment of various areas of natural resource users' operation; compliance with environmental legislation is determined by a set of conditions. For example, inspection of air protection involves checking the existence of permits, set emission limit values, existence of gas- and dust-collecting facilities and their efficiency, emission volumes, compliance of the list of discharged pollutants with those permitted, cash flow related to the pollutants, payment of pollution charges, etc. Similar lists of questions apply to other areas of operation.

### **1.2 Inspection Types**

Inspections carried out by the Ministry inspectors can be either scheduled (those carried out under a plan approved by the head of the Ministry's structural subdivision) or unscheduled. Unscheduled inspections are usually carried out in response to applications or complaints of legal entities or natural persons, announcements in mass media, or if an accident or unreliable information is revealed in the reporting submitted by a natural resource user to the Ministry.

### **1.3 Main Enforcement Instruments Used by Inspectors**

Based on the inspection results, the Ministry inspectors put together an injunction to eliminate the shortcomings detected during the inspection, as well as a record of environmental offences. Another common enforcement instrument is a ruling to hold administratively liable individuals guilty of an environmental offence, which is drawn up based on the record of environmental offences.

## **2 DESCRIPTION OF APPROACHES TO PERFORMANCE ASSESSMENT**

### **2.1 Frequency and Composition of Activity Reports**

Efficiency of inspections carried out by the area bodies of the Ministry is analyzed based on the information provided in monthly reports, which are submitted by the regional inspectorates to the regional committees. The reports include the following indicators:

- Number of inspected facilities by area:
  - water protection;
  - protection of air, land, flora, and peat;
  - protection of fauna, hunting, and state of national parks;
  - waste management; and

- state environmental review;
- Number of studied facilities subject to inspection;
- Number of injunctions regarding detected offences, including the number of items in the injunctions;
- Number of drawn up records of offences;
- Number of fines imposed for the detected environmental offences, as well as the number of levied fines and their amounts;
- Number of claims for environmental damage, as well as the number of levied claims and their amounts; and
- Number of arms seized from the individuals who violated the hunting rules.

## 2.2 Information Flows

Reports of the regional inspectorates are e-mailed to the servers of the regional committees. At the regional level, a database is created and a consolidated report is prepared, which is e-mailed to the Ministry. Finally, the Ministry receives seven consolidated reports. On this basis conclusions are made as to the performance of the regional committee and Minsk city committee. Since all the regional inspectorates in the country can submit information by e-mail and there is no need to provide a hard copy of data, a possibility currently under consideration is having the regional inspectorates report directly to the Ministry, without a database formation at the regional level.

## 2.3 Final Users of Information about Inspection Results

The Ministry and regional and Minsk city committees for natural resources and environmental protection are the final users of information about inspection results. In addition, inspection information plays an important role when the Ministry's performance is assessed by the Government of the Republic of Belarus. Other final users of the inspection review results are the Public Prosecutor of the Republic of Belarus and the Supreme Court.

## 2.4 Approaches to Performance Assessment

The main criteria for assessment of inspection activities in the Republic of Belarus are: the number of inspections, detected offences, imposed fines, issued injunctions, and other administrative penalties, i.e., the indicators which reflect mostly an inspector's activities and often serve as a penalty for an offence, without due regard to its prevention. The inspectorates' performance is assessed by comparing these indicators, using a number of specific values. Unfortunately, the indicators that have been traditionally used only reflect the inspectorates' activities and do not allow measurement of their outcome, i.e., a change in the state of environment resulting from an inspection.

In addition, indicators for each inspector are analyzed. However, the inspector specific approach is only temporary as the reliance on the principle of emulation leads to a pursuit of higher quantities at the expense of quality.

Approaches used for performance assessment also take into consideration differences in specific characteristics of different areas. These may include, for example, proximity to the area which suffered from the Chernobyl Nuclear Plant accident, existence of large industries, forests, water bodies, etc. In this regards, a matrix-based method of assessment of the totals (Table 1) has been used to assess the inspectorates' performance.

This evaluation method relies on the principle of the inspectorates' performance analysis based on aggregate indicators. It identifies an indicator band (minimum or maximum value, depending on whether a negative or positive implication of the activity is assessed). A conclusion about the inspection efficiency is made based on the number of coinciding (shaded area in the matrix) indicator values within a selected band.

**Table 1. Example of Inspection Assessment Method Based on Aggregate Indicators**

Inspectorate	Coinciding Inspection Indicators Within a Selected Band
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	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Inspectorate A						
Inspectorate B						
Inspectorate C						

This method of inspection assessment has some limitations and it is only applicable if the considered indicators are comparable and the overall operational frameworks (such as the composition of the economy of compared regions or logistic support of the inspectorates and capacity of their staff) are similar. Otherwise, the inspection indicators should be assessed on a case-by-case basis.

### **3 ANALYSIS OF PERFORMANCE ASSESSMENT SYSTEM. ITS IMPLICATIONS FOR THE INSPECTION STRATEGIES AND FUTURE OBJECTIVES**

#### **3.1 Strengths**

Notwithstanding the fact that the existing inspection assessment system does not allow the assessment of the efficiency of activities in terms of environmental improvements, this system has a number of strengths, such as, primarily, its ability to assess environmental objectives and their sequencing. Assessment of the inspectorates' activities by area (protection of air, water, etc.) helps prioritize problem-solving. The analysis allows conclusions regarding the staffing, as well as the need for structural changes.

#### **3.2 Assessment of the Nature of Violations**

Analysis of the liability rulings and preparation of statistics in compliance with the articles of the Administrative Code -- which set forth types of violations and imposed penalties-- help identify the nature and frequency of the violations. Received information makes it possible to respond adequately and to take measures to address the root causes, as well to adjust the inspectors' activities.

For example, analysis carried out based on the 2003 data has shown that the most frequent environmental offences in the Republic of Belarus are those related to the operation of motor vehicles or other means of transportation and excess of limit values of pollutants in the exhaust gas (Article 82 of the Administrative Code; 37.6 percent of the total number of violations). As a result of this and due to other causes, pollution from mobile sources (motor vehicles) accounts for more than 70 percent of air pollution in the country. Also, as the number of motor vehicles grows, the wear and tear of most of them reaches a critical point. In this regard, activities aimed to reduce the aforementioned violations are: impose restrictions on the purchase of vehicles with aged engines; shift to environmentally-clean fuels (liquefied or compressed gas); install catalytic converters; implement diagnostic lines to control emissions, etc. At the Ministry's initiative, economic incentives are also applied, in particular, tax reductions for environmentally-clean fuels.

#### **3.3 Ability to Identify or Assess Problems at the Local Level**

Inspection analysis helps assess problems that occur at the local level, and to prioritize and find ways of solving them. Analysis of the most common environmental offences in Minsk, the capital city of the Republic of Belarus, is an interesting example (Box 1).

#### **Box 1. Results of Inspection Analysis in Minsk**

Distinctive features of Minsk are: a large population (about 2 million people), a large number of transport companies and industries (about a half of the country's industry), a large number of wastewater sources, and a large volume of generated waste. Violations typical for Minsk

are uncommon in the regions. Analysis of inspections carried out in Minsk, as compared to the results of analysis of the violations common for the country as a whole, suggest the following:

1. Violations of the rules of stockpiling industrial and household waste (Article 83 of the Administrative Code) prevail over those related to the operation of motor vehicles or other means of transportation in excess of the limit values of pollutants in the emissions. The total number of the aforementioned violations accounts for about two thirds of total violations, which suggests that urgent environmental measures should be taken.

2. Violations related to the failure to comply with injunctions of the environmental enforcement authorities (Article 85 of the Code; 8.9 percent of the violations) are less typical for Minsk than for the country as a whole. This might be due to greater (compared to the regional level) responsibility of the natural resource users, their high degree of awareness through mass media, and advocacy of environmental knowledge among the general public.

3. Due to improper operation or capacity depletion, a large number of industries, which have water facilities and devices, waste water treatment plants and treatment plants for pollutants, incur violations related to the disruption of water facilities and devices (Article 61 of the Code; 6.5 percent of violations); violations of water protection rules (Article 59 of the Code; 5.7 percent of violations); violations of water use rules, in particular, those due to irrational water use (Article 80 of the Code; 3.6 percent of violations); violations of the operational rules; as well as absence or failure to utilize treatment facilities (Article 80 of the Code; 2.1 percent of violations). Measures taken by the Ministry to reduce such violations are: promotion of emission and wastewater treatment technologies (including by means of funding from the environmental protection funds funded from the environmental tax) and control over maintenance of water facilities and wastewater treatment plants.

4. Due to a considerably growing number of small and medium enterprises, the number of violations related to project implementation without a positive outcome of the state environmental review (Article 56 of the Code; 4 percent of violations) has been increasing. This indicator has been changing due to many factors, including the enterprises' awareness of the need of expert assessment for the newly-constructed facilities, changes in their by-laws, number of project solutions, time for development of design documents, etc.

### 3.4 Weaknesses of Current Approaches to Performance Assessment

Current approaches to performance assessment have a number of weaknesses. The most obvious inadequacies of the inspection assessment system include the following:

- Increase in the number of inspections along with a decrease in their qualitative indicators;
- Increase in the number of "idle" inspections and no inspection planning;
- No documentation of results of a certain number of inspections;
- No assessment of environmental indicators;
- Decrease in the share of levied fines in the number of imposed fines, decrease in the amounts of imposed fines, and increase in the number of warnings.
- Increase in the number of Inspections

The current approach to inspection assessment resulted in an increase in the number of conducted inspections along with a decrease in their qualitative indicators, such as the number of inspected pollution sources, assessment of efficiency of treatment facilities, screening the reporting for accuracy and timeliness, etc. This finding is indirectly confirmed by a decreasing number of claims for environmental offences as it takes more time to scrutinize pollution sources prior to filing a claim on environmental pollution.

### 3.5 Increase in the Number of “Idle” Inspections

An increase in the number of “idle” inspections is attested by the fact that, while the size of the regulated community remained relatively stable, the number of possible violations only slightly increased, despite the fact that the number of inspections has been steadily growing (Table 2). Inspectors have been carrying out inspections in order to improve the isolated indicators for the number of inspections. This ambition to artificially improve performance indicators has had a negative impact on the quality of work.

**Table 2. Dynamics of Inspection Indicators, 2000-2002**

Indicator/Year	2000	2001	2002
Number of inspections	59,571	66,042	91,808
Number of records	24,616	29,741	32,039
Number of imposed fines	21,089	25,577	26,323
Specific weight of imposed fines in the number of inspections, %	35.4	38.7	28.7
Specific weight of imposed fines in the number of records, %	85.7	86.0	82.2
Number of prepared claims	758	739	607

Source: Ministry of Natural Resources and Environmental Protection of the Republic of Belarus

### 3.6 No Documentation of Inspection Results

Inspection results are not always documented. There are difficulties with the documentation of inspections related primarily to the enforcement of environmental legislation on the protection of land, flora and fauna, peat, hunting, and state of national parks. In some events, failure to document the inspection results raises doubts about the reliability of provided information.

### 3.7 No Assessment of Environmental Indicators

Since the system of reporting does not include the indicators describing the state of environment, the existing system only partly describes the inspectorates' performance. For instance, a reduction in the number of prepared records or issued injunctions would not always mean a decline in the inspectorates' performance. The reduction might be due to environmental improvement, introduction of self-inspection systems by the inspected community, or necessary environmental measures.

### 3.8 Decrease in the Share of Fines

At present, one in five (and in the past, one in three) inspections leads to the imposition of a penalty, namely, issuance of a ruling to hold administratively liable individuals guilty of environmental offences. Identified decrease in the specific weight of imposed fines in the number of prepared records shows that the number of detected minor offences went up. This, in particular, might suggest that the focus of the inspections has shifted to the violations which are less time-consuming to detect.

Analysis results are affected by many factors, such as:

- The ability to apply various articles of the Code, which stipulate various fines, to the detected offence,
- The possibility to issue an official warning in lieu of imposing a fine (for minor offences),
- The subjective assessment of an offence by the inspector, and other causes.

Environmental problems could be analyzed by means of assessing inspections based on the specific weight of detected offences in the following events:

- The number of conducted inspections is large enough;
- The number of staff inspectors is large enough;
- Offences are differentiated by type;
- The general public is able to pay and liability for the environmental damage has been strengthened;
- There is capacity to compile and process a large volume of statistics.

### 3.9 Proposed Program of Changes in Approaches to Inspection Assessment

Reform of the inspection assessment as part of improvement of the inspection system could help to overcome the current crisis. The program of changes in approaches to inspection assessment could include the following objectives:

- Identify the most important assessment criteria;
- In the absence of numerical criteria, develop a scoring-based scheme (preferably a simplified one: bad – satisfactory – good).
- Take stock of natural resource users, which will allow the unequivocal interpretation of the indicator of quantity of inspected facilities;
- Develop a structure of the report filled out by the inspector during the inspection. The number of inspections should match that of the prepared reports, which would enhance the reliability of the provided information. The report could still include the information about indicators in use, such as the number of prepared records, imposed fines, issued injunctions, amount of imposed fines, etc.
- Introduce electronic report forms and implement computerized processing of statistics.
- Enhance personal responsibility for the information provided by an inspector.
- In the event of drastic change in the identified criteria, involve higher inspectorates of the Ministry in the repeated inspections with a view to identifying the causes for such change.
- Based on the reported information, constantly analyze and identify problem areas in the inspections, as well as develop programs and environmental plans and determine necessary levels of funding from the environmental protection funds.

### 3.10 General Framework for Improvement of the Inspection Assessment System

Reform of the inspection assessment system requires some general framework, which, among other things, would meet the following requirements:

- Stable number of staff inspectors;
- Detailed familiarization of the inspectors with the problems faced by the inspected facilities;
- Existence of a system of injunctions, by means of which an inspector would monitor the state of environment at an inspected facility;
- Existence of a permitting and licensing system for use of natural resources;
- Assessment of environmental pollution volumes;
- Existence of a system of state statistical reporting for the entities engaged in the use of natural resources and subject to inspections;
- Existence of a system of environmental pollution claims, environmental monitoring, and laboratory environmental quality analysis methods.