

# Ways to improve environmental taxation in Russia

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**Abstract. Negative Environmental Impact (NEI)** is one of the measures of state control over the level of environmental pollution. The established fee must be paid by all organizations, enterprises and institutions whose activities are associated with a negative impact on nature. Assessing the potential of the tax system that exists today, we have to state that the maximum possible level of the share of revenues from the exploitation of natural resources provided by the tax system as a whole (including direct and indirect taxes) cannot exceed 20%. As for direct taxes on the exploitation of natural resources, they are calculated only by a few percent. The need for reforms in the Russian tax system is obvious. **The subject of the study** is the types of negative environmental impact. **The purpose of the study** is to identify ways to improve environmental taxation. **Methodology.** To study the topic, the rates for emissions of pollutants into the air and into water bodies, and for the disposal of production and consumption wastes according to their hazard class were considered. **Results** - greening of tax policy is needed, and some of its areas that will completely change the system of waste collection and disposal in Russia are highlighted.

## 1 Introduction

Despite the fact that payments for negative environmental impact have actually been charged since the beginning of the 90s of the XX century, the problem of introducing and legislatively fixing the environmental tax in the Russian Federation was actively discussed and was the subject of fierce debate as to what form - tax or non-tax payment - this fiscal payment should be established and collected.

Since the adoption of Part I of the Tax Code of the Russian Federation, it has been assumed that it is the environmental tax that will be introduced. It was supposed not as a tax on the use of various natural resources (according to the model of land tax or water tax), but as a payment levied in connection with the deterioration of the environmental situation as a result of the activities of economic entities.

According to the article 13 of the Tax Code of the Russian Federation as amended up to January 1, 2005, the environmental tax was classified as federal taxes levied throughout the Russian Federation [4]. At the same time, in the Tax Code of the Russian Federation, the

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environmental tax was understood as payment for a negative impact on the environment. However, since the issue of the legal form of the environmental tax has not been finally clarified, the State Duma of the Russian Federation periodically introduced a variety of bills with a proposal to legislatively consolidate the essential elements of the environmental payment.

The government is discussing the idea of replacing payments for enterprises for the discharge of untreated wastewater into water bodies with an environmental tax. Such a tax can be an additional incentive for “dirty” industrial and communal enterprises to use modern purification technologies [3].

Meanwhile, the state is helping enterprises modernizing wastewater treatment plants. It subsidizes the interest rate on loans taken for these purposes. Such subsidies have already been received by 40 organizations in the amount of 5.3 billion rubles. And the total cost of projects being implemented amounted to 146.2 billion rubles [3].

**Payment for environmental pollution and other types of harmful effects** on it is considered in the environmental law of Russia and foreign countries as one of the main economic incentives for enterprises-users of natural resources, whose activities are associated with such impacts on nature, to take measures to reduce environmental pollution in accordance with legal requirements. Some general requirements regarding payments for negative environmental impact are defined in the Federal Law of January 10, 2002. No. 7-FZ “On environmental protection”.

**Types of negative environmental impact** for which a fee is charged (in accordance with the Decree of the Government of the Russian Federation dated March 3, 2017 No. 255 “On the calculation and collection of fees for negative environmental impact”):

- emissions of pollutants into the atmospheric air from stationary sources (hereinafter referred to as emissions of pollutants);
- discharges of pollutants into water bodies (hereinafter - discharges of pollutants);
- storage, burial of production and consumption waste (hereinafter - waste disposal).

When differentiating the objects of NEI, a number of criteria are taken into account that determine the level of production impact on nature.

According to these regulations, the following conditions are taken into account in order to classify an enterprise into a certain category: the level of destructive impact on the environment; what class the industrial facility or production belongs to, what industry; hazard class of discharged substances, toxicity level, presence of mutagenic properties in waste; attribution to a nuclear power facility. According to the specified criteria, the NEI objects are divided into four categories, where I means that the source of pollution has a serious impact on the environment, II - moderate NEI, III - insignificant; and IV - minimal.

**Negative environmental impact (NEI)** is a source (or their combination) of harmful impact on the environment located in an isolated area.

Depending on the nature of the location, the following types of objects are distinguished:

**Stationary** - these are production pipes, boiler rooms, parking lots, diesel units, places where metal and wood are processed, paint is used, treatment facilities are located, etc.

**Mobile** - any means of transport of the enterprise, including air, water and underwater ones, all those with engines running on gasoline, diesel, gas or kerosene.

**Wastewater discharges** - any sources that generate contaminated water as a result of industrial activities and discharge it onto land, into a river, lake or sea.

**Household and industrial waste** generated during the operation of the enterprise. The last item includes many public places, for example, administrative buildings, schools, workshops, offices, shops, etc.

The introduction of an environmental tax in Russia is substantiated by the need for financial support for the activities of the government of the Russian Federation related to the implementation of state policy in the field of ecology, aimed at providing conditions for citizens to exercise their constitutional right to a favorable environment. Revenues from the environmental tax to the budget, in turn, will make it necessary to finance environmental programs of the state at the expense of other budget revenues [5].

Most opinions come down to one thing - we should all be careful about the environment; our health and the health of many future generations depend on it. Everyone should have in his mind to be careful with the environment and natural resources. No taxes and penalties will be able to compensate for the harm that the person himself causes.

## 2 Materials and Methods

Garbage generated in all types of activities of both organizations and individual entrepreneurs pollutes the environment, and one should pay for it [1]. In this case, it is necessary to distribute the responsibility for payments in such a way as to avoid double taxation. As a general rule, the garbage fee is charged when disposing of production and consumption waste. And here it is important to understand what is waste disposal, because in everyday life, we understand disposal as storing waste in ordinary garbage cans [6].

In a specific case, waste disposal means not just waste storage, but keeping them in special facilities for subsequent disposal, for example, at special landfills or dumps. Consequently, if an individual entrepreneur or organization simply throws office or commercial waste into a container standing on the street, and it is already taken out by an organization with which a contract for the removal and disposal of waste has been concluded, then there is no need to pay an environmental fee in this case [1].

Thus, the obligation to pay the environmental pollution fee is assigned to the organization involved in the collection and disposal of waste.

There are categories of organizations and individual entrepreneurs that do not pay for environmental pollution. The law applies to individual entrepreneurs and organizations that conduct their activities at facilities of IV hazard category, where:

- there are no releases of radioactive substances;
- there are no discharges of pollutants generated during the use of water for industrial needs into the sewage system, into the environment, and into surface and ground water bodies, as well as onto the earth's surface;
- there are stationary sources of pollutant emissions, while their amount is not more than 10 tons per year;
- there are only non-stationary sources of pollutant emissions.

**To calculate fees for negative impact on the environment, it is necessary to know:**

1. Standards of maximum permissible emissions (discharges) of pollutants and limits for waste disposal approved by the Federal Service for Supervision of Natural Resource Usage (Rosprirodnadzor) for the organization.
2. Standards for temporarily agreed emissions (discharges) of pollutants approved by Rosprirodnadzor for the organization.
3. The amount of fuel consumed by mobile sources in the reporting period.
4. Standards of payment for environmental pollution approved by the RF Government decree of June 12, 2003 No. 344.
5. Coefficients that take into account the inflation rate of fees and the coefficients of the ecological significance of the region.
6. Actual masses of emissions (discharges) of pollutants and disposed waste with a breakdown:
  - within the approved standards (MPE, MPD and WDL);

- within the approved temporarily agreed standards (TAE and TAD);
  - in excess of the approved standards and time standards.
7. Increasing coefficient, which is used when calculating payments for environmental pollution in excess of the approved standards and limits. The value of this coefficient is 5.0.
- The rates for emissions of pollutants into the air and water bodies are presented in Table 1.

**Table 1.** Rates for emissions of pollutants into the air and water bodies for 2016-2020.

Name of contaminants	Payment rate in rubles for 1 ton of pollutants (production and consumption waste)				
	2016	2017	2018	2019	2020
<b>For emissions of pollutants into the air from stationary sources</b>					
Nitric acid	35.1	36.6	36.6	38.1	39.5
Ammonia	133.1	138.8	138.8	144.4	149.5
Mercury and its compounds (excluding diethylmercury)	17492.5	18244.1	18244.1	18973.9	19703.6
Benzo(a)pyrene	5247490.6	5472968.7	5472968.7	5691887.4	5910806.2
Hydrogen sulfide	657.9	686.2	686.2	713.6	741.1
Sulfuric acid	43.5	45.4	45.4	47.2	49.0
<b>For emissions of pollutants into water bodies</b>					
Aluminum	17630.7	18388.3	18388.3	19123.8	20653.7
Ammonia	14105.6	14711.7	14711.7	15300.2	16524.2
Beryllium	1900943.1	1983592.8	1983592.8	2062936.5	2227971.4
Benzo(a)pyrene	70523113.0	73553403.0	73553403.0	76495539.1	82615182.2

The rates for the placement of production and consumption waste by hazard class are presented in Table 2.

**Table 2.** Rates for the placement of production and consumption waste by hazard class for 2016-2020.

Waste hazard class	Payment rate in rubles for 1 ton of pollutants (production and consumption waste)				
	2016	2017	2018	2019	2020
Waste of hazard class I (extremely hazardous)	4452.4	4643.7	4643.7	4829.4	5215.8
Waste of hazard class II (highly hazardous)	1908.2	1990.2	1990.2	2069.8	2235.4
Waste of hazard class III (moderately hazardous)	1272.3	1327	1327	1380.1	1490.5
Wastes of hazard class V (moderately hazardous)	635.9	663.2	663.2	689.7	744.9
Wastes of hazard class V (almost non-hazardous):					
- mining industry	1	1.1	1.1	1.1	1.2
- processing industry	38.4	40.1	40.1	41.7	45.0
- others	16.6	17.3	17.3	18.0	19.4

**Harm factors.** When calculating the amount of this fee, the degree of harm caused by the enterprise to the environment is taken into account. Depending on the factor applied, the fee may be higher or lower. This additionally stimulates entrepreneurs to take adequate measures to reduce NEI.

Table 3 shows the types of impacts associated with waste disposal, depending on the factor assigned to them.

**Table 3.** Types of impacts associated with waste disposal, depending on the factor assigned to them.

No.	Factor	Features of waste disposal
1	0	Disposal of wastes belonging to hazard class V by placing them in specially created cavities of rocks (in the mining industry).
2	0.3	Disposal of hazardous waste at special facilities equipped in accordance with the established requirements, without exceeding the established limit norms.
3	0.33	Disposal of waste of hazard class IV, which acquired this class after the neutralization of waste of hazard class II.
4	0.49	Disposal of waste of hazard class IV, which acquired this class after the neutralization of waste of hazard class III.
5	0.5	Disposal of waste of hazard classes IV and V, which acquired this degree in the process of waste disposal at an earlier date.
6	0.67	Disposal of waste of hazard class III that acquired this class after the disposal of waste of hazard class II.

Apart from the waste disposal factors, the **inflation rate** is also important. If the negative impact has exceeded the established limits, another **multiplying factor** is used, which is equal to 5 units. For 2020, a rate of 1.08 is set to the rates of charges for negative environmental impact.

Payment for negative environmental impact is calculated based on the actual amount of emitted pollutants, dumped pollutants, and disposed waste for the reporting period.

Emissions of pollutants are accounted for each operated source in the reporting period - according to the data from the emission register.

Discharges of pollutants - according to the wastewater quality logbook. If the discharge occurs in centralized sewerage systems, then the fee is paid by the organization that receives the wastewater of this enterprise.

Disposed waste - according to the data of the waste register. Payment is not made for waste accumulated at the enterprise, for waste transferred for disposal or neutralization. When calculating the payment for negative impact, it is necessary to take into account the available permits: within the limits of emissions, discharges and above; within the limits of the temporarily permitted emissions, discharges and higher; within the limits for the disposal of production and consumption waste and above.

**Over-limit pollution of the environment** is a term familiar to us in everyday life, which means exceeding standards, limits. For different objects that have a negative environmental impact, a separate rate of fees is established (Table 4).

**Table 4.** Rates for facilities that have a negative environmental impact.

Payout category	Rates for 2020 (per ton of pollutants)
Emissions of pollutants into the atmosphere when using stationary equipment	0.1 – 5472968.7
Emissions of pollutants into various water bodies	2.4 – 70523113
Disposal of industrial waste, as well as their consumption in accordance with the hazard class	1.1 – 4643.7

The calculation of the fee for negative impact is carried out in accordance with the following formula:

$$NEI = PB * R * C$$

Where PB is the payment base for a specific pollutant that is included in the list specified in the current legislation and corresponds to a specific hazard class;

R is the rate set for a specific pollutant;

C is the coefficient applied to the specified pollutant.

This fee should be calculated in relation to each individual pollutant that comes from the stationary sources used, after which all types of payments are added together, and on the basis of this amount, a total fee is already calculated.

### 3 Results

In the perspective of the development of environmental taxation in Russia, it is possible to replace existing environmental payments for environmental pollution with an **environmental tax** [4].

As the prospects for the development of environmental taxation, one can also note the improvement of legislation in this area, the establishment of the amount of payment for environmental fees, which would stimulate the introduction of environmentally friendly production at enterprises.

It is possible to create a new state body for environmental and economic orientation, which would be in charge of environmental protection, collection of environmental taxes, and control over the activities of polluting enterprises. In this organization, environmentalists could directly interact with specialists in taxes and fees for a more coordinated work in this area [6].

Prospects for replacing environmental charges for environmental pollution with an environmental tax are presented in Table 5.

**Table 5.** Prospects for replacing environmental payments for environmental pollution with an environmental tax.

<b>Tax element</b>	<b>Valid now</b>	<b>Proposed changes</b>	<b>Predicted impact of changes</b>
Components	Emissions of pollutants into the air, discharges of pollutants into water, waste disposal	Emissions of pollutants into the air, discharges of pollutants into water, waste generation	The tax is levied on the mass of waste generated. Waste disposal fees are related to the field of civil law relations.
Object of taxation - emissions and discharges of pollutants, waste generation	Established baselines for each component	3-5 groups for each component, groups are formed according to the degree of toxicity of substances	Significant simplification of the procedure for calculating and controlling measurements and calculations carried out on their basis.
Tax base	The amount of pollution produced for each substance	Total volume of produced pollution, by group of substances (waste)	Instead of a huge number of basic standards (for each pollutant) - 1-3 tax rates.
Payment source	Cost of production - within acceptable standards; profit - within the agreed	Production cost	Simplification of the calculation. Reducing the competitiveness of the products of "dirtier"

	standards and with excess pollution		enterprises. Fee for excess pollution (fines) belongs to the field of civil law relations.
Average tax amount	0.05 - 0.5% of production cost	On average, up to 1-1.5% of the production cost	Increasing the interest of enterprises to reduce harmful effects
Tax rates	In monetary terms (rubles/ton of manufactured products)	Establishing a fixed rate	
Tax deductions	According to the result of the costs incurred in accordance with the approximate list of activities	Not provided	Strengthening the anti-corruption resilience of the system.

In Russia, one of the ways to improve environmental taxation is to partially replace income tax. With the introduction of the “energy excise”, the state will be able to bring domestic prices for energy resources to the level of average European ones and will begin to form national development funds. The amount of this “excise” should not exceed the current corporate income tax obligations. Its advantage is that enterprises and other consumers of energy resources will be able to legally and indefinitely reduce their tax payments simply by saving energy or by switching to the use of alternative energy sources [5].

## 4 Conclusions

On the basis of all of the above, we will conclude that the **greening of tax policy is necessary**. Let's highlight some of **its areas**:

- a consistent increase in the share of taxes on the use of natural resource potential in total tax revenues;
- the introduction of taxes for the use of environmental resources and, due to this, the expansion of the environmental taxation base;
- the introduction of indirect environmental taxes on those goods and services that are associated with an increased risk to the environment;
- tax incentives for environmentally friendly industries and limiting direct and indirect subsidies for environmentally hazardous ones in order to stimulate them to improve technologies and shift “to ecological path”.

Optimizing environmental fees should push businesses towards being environmentally friendly. The increase in the tax burden on enterprises with the introduction of the environmental tax is not expected [2].

When replacing the environmental fee with an environmental tax, its rate will not change. It is still possible to reduce the payment of tax by the amount of expenses for actions to reduce damage to the environment [4]. It is taken into account that if enterprises invest in environmental protection and rational use of natural resources, it is possible to obtain a tax benefit. It is possible to budget for tax revenues as a result of the benefits provided to businesses, but it will be much cheaper than paying for restoration of environment or natural resources.

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