The economic mechanism for the formation and collection of non-tax payments in forestry

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Abstract. The article discusses the modern economic mechanism for the formation of payments for the use of forests. The classification of non-tax payments in the forestry of Russia and the mechanism of their receipt by the state are presented.

1. Introduction
The system of forming payments for the use of forests in Russia has existed without fundamental changes for several decades. The system is based on the principle of administrative pricing. In turn, the model of the pricing economy is formed by forest legislation. The Federal Forestry Law establishes the organization of the use of forests. The economic essence of the use of forests lies in the provision by the owner of the forests (the state) at the auction of forest resources to an unlimited number of individuals and legal entities. The most widespread use right in recent years has become the lease of forest plots.

The forest legislation establishes the principle of payment for the use of forests. The basis of economic relations between the state and the forestry business in forestry is formed by the system of taxes and non-tax payments. A condition for the progressive development of forestry is the observance of economic interests between the state and the forestry business.

2. Methods and Materials
2.1. Methods
The study used theoretical research methods: analysis of the actual data of forestry departments, official statistical sources, the results of scientific research of the Department of Forest Policy, Economics and Management of the St. Petersburg State Forestry University; statistical methods: grouping of statistical observation materials, sampling, etc.

2.2. Experimental part
The subjects of the Russian Federation of the Northwestern Federal District (hereinafter - the Northwestern Federal District) were selected as the object of consideration in the study: the Republic of Karelia, the Republic of Komi, Arkhangelsk, Vologda, Kaliningrad, Leningrad, Murmansk, Novgorod, Pskov regions and the Nenets Autonomous District. The forests of the Northwestern Federal District occupy an area of about 1.1 million hectares, or 9.8%, of all forests in the Russian Federation [1]. The indicator of forest cover in the district is higher than in the country as a whole by 17% - 54.2% versus 46.4%. The largest indicators of forest cover: the Komi Republic 72.7%, the Vologda region 68.0%, the
Novgorod region 64.3%. stands and maturing forests in the NWFD make up 39.7% of forests, which is 34% more than in the country as a whole.

The Forest Code of the Russian Federation (2007) defines several rights to use forests for the purpose of timber harvesting (figure 1): lease of a forest plot, purchase and sale of forest plantations, permanent (unlimited) use [2]. For permanent (indefinite) use, forest plots are provided free of charge to federal state institutions. In the Northwestern Federal District, in the period under review, this right to use does not exceed 1.5% in terms of the volume of forest harvesting.

![Figure 1. Structure of timber harvesting by right of use, 2008-2017, %.

According to Russian legislation, commercial timber harvesting can be carried out on the basis of lease agreements for forest areas, contracts for the sale and purchase of forest plantations [3]. Sale and purchase agreements for forest plantations are concluded both with citizens for harvesting timber for their own needs, and with entrepreneurs of small and medium-sized businesses.

Analysis of data on timber harvesting in the Northwestern Federal District for the period 2008-2017 in terms of use rights shows (figure 1) that under lease agreements for a forest plot, from 80% to 90% of timber is harvested. In the period under consideration, the absolute value of the volume of timber harvesting has been growing since 2008 by an average of 5% per year and reaches its maximum value in 2013. This volume of timber harvesting remains in subsequent years.

Timber harvesting under contracts of sale and purchase of forest plantations by small and medium-sized businesses in the period under review is declining. In the structure of timber harvesting by types of use rights, the decline occurred from 21% to 9%. The annual decrease in the volume of timber harvesting under this type of sale and purchase agreements over the six years from 2009 to 2014 averaged 19%. Since 2015, there has been an increase in wood harvesting by small and medium-sized businesses under contracts for the sale and purchase of forest plantations.

As can be seen from the presented analysis, the largest share of the use of forest resources is carried out under lease agreements. The calculation of the payment for the use of forests paid by the lessees of a forest plot is carried out by decree of the Government of the Russian Federation, according to which the minimum rates and rental allowances for forest payments for 1m³ of timber are established for forest tax areas, which are differentiated depending on the species, quality of timber and the distance of removal.

Formation of payments for the use of forest resources contains two components: administrative and market pricing. The minimum rate of payment is set by the state, after the auction between
representatives of the forestry business, the rate may increase. The rate of payment for 1m³ of wood is set depending on the consumer properties of wood and is divided into industrial and firewood.

Commercial timber is classified according to size categories. Large commercial timber includes trunk segments with a diameter of 25 cm or more at the upper end without bark, medium timber - with a diameter of 13 to 24 cm, and small timber - with a diameter of 3 to 12 cm [4]. The rate of payment, depending on the category of wood grain size, varies from 28% to 67%. Also, the timber haul distance significantly influences the payment for the use of forests. To date, seven categories of taxes have been set, depending on the haul distance. The rates of payment between these categories do not have an even relationship and will vary from 5% to 30%. In figure 2 shows the differentiation of the forest tax, taking into account the increasing coefficients depending on the consumer properties of wood and the distance of haulage on the example of the Leningrad forest tax area for the species of pine [5].

![Figure 2](image_url)

**Figure 2.** Differentiation of the forest tax depending on the distance of haulage and consumer properties of wood on the example of the Leningradsky forest tax district.

The consolidation of the principle of payment for forest use in forestry legislation requires the fulfillment of the state function of administering payments. Administration of payments for the use of forests is a kind of management activity of civil servants, carried out according to a unified methodology and includes the following functions:

- assignment, accounting and control over the correctness of calculation, completeness and timeliness of payments to the budget;
- assignment, accounting and control of penalties and fines for payments to the budget for forest use;
- collection of arrears on late payments, penalties and fines;
- making decisions on the return of overpaid (collected) payments, penalties and fines, as well as interest for the untimely implementation of such a return and interest charged on overly collected amounts;
- making decisions on the offset (clarification) of payments to various levels of budgets;
- other budgetary powers.

The result of the administration of payments is a service to the state for the management of payments that are formed as a result of forest use and are received by the budgetary system of the Russian Federation.

Forestry payments, fines and penalties are recognized as non-tax revenue. In figure 3 shows the composition of non-tax revenues from forest use.

The information base for checking the correctness of the calculation of rent are:

- federal government-approved starting rent rates;
- increasing coefficients to them, established by the subject of the federation;
- forest development projects;
- forestry regulations;
- forest plans;
- forest inventory materials.

Payers can be the following persons:
- using forests for business activities;

| Sources of income of the federal budget of the Russian Federation | Sources of income of the budgets of the constituent entities of the Russian Federation |
|---------------------------------------------------------------|----------------------------------------------------------------------------------|
| – payment for the use of forests in terms of the minimum rent;  | – payment for the use of forests in the part exceeding the minimum rent and the minimum payment under the contract for the sale and purchase of forest plantations; |
| – payment for the use of forests in terms of the minimum amount of payment under the contract for the sale and purchase of forest plantations; | – payment for the use of forests in the part exceeding the minimum amount of payment under the contract for the sale and purchase of forest plantations; |
| – income from the sale of timber obtained during the implementation of measures for the protection, protection, reproduction of forests when placing a state order for their implementation without the sale of forest plantations for timber harvesting, as well as timber obtained from the use of forests located on the lands of the forest fund; | – payment for the use of forests in the part exceeding the minimum rent; |
| – income from the provision of information and consulting and other types of services; | – payment under the contract for the sale and purchase of forest plantations for their own needs. |
| – funds from the sale of sequestered wood; | |
| – monetary penalties (fines) for violation of forestry legislation established in forest areas that are in federal ownership; | |
| – other receipts from monetary penalties (fines) and other amounts in compensation for damage, credited to the federal budget; | |
| – other non-tax revenues of the federal budget; | |
| – federal budget revenues from the return of the remnants of subsidies and subventions of previous years from the budgets of the constituent entities of the Russian Federation. | |

**Figure 3.** Composition of non-tax revenues from forestry by budget levels.

- the population, when concluding contracts for the sale and purchase of forest plantations for their own needs;
• receiving extracts from the state forest register;
• committed violation of forestry legislation;
• acquiring sequestered wood;
• other persons.

Lessees of forest plots are obliged to comply with the terms of payment of rent for the right to use during the calendar year. The main document that provides control over the calculation, the actual entry into the budget of payments for the use of the forest, is the personal account card of the forest user. The card is drawn up in the forestry and it records the accrued, actually paid amounts, additional accrued (reduced) amounts based on the results of checks, return (offset) of overpaid payments, penalties and penalties for violation of contractual conditions. Payment administration activities cover almost all levels, from forestry (forest park) to federal executive bodies. Each subject of this process is endowed with certain functions.

The main administrator of income is the Federal Forestry Agency of Russia (Rosleskhoz). Rosleskhoz annually submits to the Ministry of Finance information on the forecast of revenues to the budget system from payments for forest use for the next financial year and planning period, appoints administrators of payments.

Forestry departments in federal districts (7 in total) are endowed with the following separate powers in terms of administering payments:
• formation and submission to Rosleskhoz of budgetary reporting from the state authorities of the constituent entities of the Russian Federation exercising powers in the field of forest relations
• formation and submission to Rosleskhoz of information necessary for drawing up a medium-term financial plan and (or) a draft budget;
• information necessary for drawing up and maintaining a cash plan;
• control, analysis and monitoring of payments [6].

Territorial bodies of state power in the field of forest relations are administrators of budget revenues of the respective constituent entities of the Russian Federation, their planning and economic services:
• form a forecast for the receipt of non-tax revenues;
• prepare analytical materials on budget execution;
• information for drawing up a medium-term financial plan and (or) a draft budget of a constituent entity of the Russian Federation;
• register documents - the basis for calculating payments for forest use,
• organize interaction with the Treasury for the exchange of information;
• accept applications for refund of payments from payers;
• collect budgetary and statistical reports from forestries (forest parks) and send it to Rosleskhoz and territorial financial bodies;
• control and monitor payments.

Forests and forest parks perform the functions of a payment administrator, they:
• register copies of documents - the basis for payments for the use of forests;
• charge a fee with a distribution by payment terms;
• send notifications to payers about payment;
• register actually received payments to the budget;
• monitor the timeliness and completeness of the transfer of funds, identify payers who have arrears and overpayment of payments;
• draw up notices about violation of payment deadlines;
• carry out reconciliation of payments for payments;
• form budget reporting;
• control, analyze and monitor payments.

The payment for harvesting 1 m³ of timber under lease agreements for a forest plot in the period under review is the lowest in comparison with the payment under agreements for the sale and purchase
of forest plantations (figure 4). This type of payment in the period under review increased by 50% over ten years. Payments for harvesting 1 m³ of timber under purchase and sale agreements during this period increased by 139%. A significant jump occurred in 2017 by 86% in relation to 2015 and 2016. The basis for this was the adoption of a new methodology for calculating payments for timber harvesting under contracts of sale to small and medium-sized businesses [7].

![Figure 4. Average forestry business fee for timber harvesting, RUB/m³.](image)

The payment for harvesting 1 m³ of timber under purchase and sale agreements for own citizens has been growing throughout the entire period. The growth rate also increased annually. As a result, the payment for 1 m³ in 2017 is 239% higher than in 2008. The procedure for determining payment for timber harvesting for this type of law is determined by each constituent entity of the Russian Federation independently.

3. Results and Discussion

The results of the study showed a low level of payment for forest use. The value of afforestation is set by administrative means and is not related to the market price for round timber. The administrative price is set unchanged for a year, during this time the cost of harvested timber changes on the market both upward and downward. Due to administrative pricing, there is no balance of economic interests between the state and the forestry business [8]. Scientific research can be continued towards the formation of an economic model to comply with the economic interests of stakeholders.

4. Conclusion

The conducted research allows us to draw the following conclusions:
- the economic mechanism for the formation and collection of non-tax payments in forestry does not take into account the supply and demand for logging products;
- administrative pricing reacts poorly to market changes in demand and supply of forest products;
- payments for the use of forests are of a rental nature and are not a tax;
- the average rental rate is $ 1 / m³ and has a slight tendency to increase;
- to increase the efficiency of the forestry economy, it is necessary to link the formation of rental rates with market prices for timber.

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