Administrative Forestry Enterprise the Territory of Far Eastern Federal District Based on the Results of 2020

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Abstract. The Far Eastern Federal District (FEFD) of the Russian Federation (RF) includes 11 constituent entities with a total area of 555.3 million hectares, which is 48.5% of all forest lands in the country. Stock of wood forest plantations in the Far Eastern Federal District are 31% of the total stock of the Russian Federation, and ripe and over maturity stands prevail here. Most of the forests of the Far Eastern Federal District are boreal forests, which are known to be the regulator of the planet's climate. The process of intensive development of natural forests in this area can lead to the release of large amounts of carbon. The unique biogeography of the region has led to a combination of unique species of flora and fauna in a single ecosystem, and, unfortunately, most of the commercial forests are concentrated in the same area. Exhausting forest management practices reduce the many interrelated protective and ecological functions of forests of local, regional and global importance. The implementation of the state policy in the field of forestry in this area is under the jurisdiction of the Department of Forestry for the Far Eastern Federal District. The current state of forestry and plans for its management are reflected in the reports of the official statistics of the department. First of all, at the state level, it is recognized that there are no relevant forest inventory materials on a part of the territory. The indicator of the availability of a stock of seeds for reforestation purposes has been fulfilled by 51.5% of the plan; the shortage of seeds of small-coniferous species is of concern. Extinguishing forest fires takes place in a controlled area, here the burning rate continues to remain last year, and the area covered by the fires increases in area. Forest fires are not extinguished in uncontrolled areas. An important problem in the region is crimes committed in the field of violations of forest legislation, namely, illegal logging of forest plantations is of an organizational nature. With all the natural uniqueness of the territory under consideration, economic activity here is fraught with a number of difficulties, which it is not possible for the executive authorities to solve on their own. Special attention should be paid to forestry in the Far Eastern Federal District.

1. Introduction

The main tracts of undeveloped or intact forests in Russia today are concentrated in the Far East - vast sparsely populated areas with a rather underdeveloped infrastructure. According to article 54 of the Forestry Code of the Russian Federation (RF), forest management must ensure, inter alia, the preservation and enhancement of the natural properties of forests; multipurpose, continuous, sustainable use of the forest fund; reproduction; increasing the efficiency of forestry. The Forestry Department for the Far Eastern Federal District (FEFD) is a territorial body of the Federal Forestry Agency of the interregional level, performing functions: for the implementation of state policy, for
control and supervision, for the provision of state services in the field of forest relations. This article attempts to analyze the implementation of forestry activities on the territory of the Far Eastern Federal District according to the official data of the Forestry Department of the Far Eastern Federal District for 2020. [2]

2. Actuality
Most of the forests of the Far Eastern Federal District belong to boreal forests - the climate regulator on the planet. Intensive development of natural forests in this area can lead to the release of large amounts of carbon. Exhausting forest management practices reduce the many interrelated protective and ecological functions of forests of local, regional and global importance. The unique biogeography of the region has led to a combination of unique species of flora and fauna in a single ecosystem, and, unfortunately, most of the commercial forests are concentrated in the same area. Despite the impressiveness, the size of undeveloped forests must be seriously adjusted to take into account their global importance and extreme vulnerability. A significant factor in assessing the real stock of wood here should be considered its relatively low commercial quality, which does not allow maintaining economically sustainable logging enterprises due to the low price. The applied methods of estimating the allowable cut inevitably lead to depleting forest management. [1]

3. Formulation of the problem
The Forestry Department for the Far Eastern Federal District is a territorial body of the Federal Forestry Agency of the Russian Federation at the interregional level, it carries out the functions of implementing state policy, providing public services and managing state property in the field of forestry in the territory of the Far Eastern Federal District. The Department performs the tasks and functions of the Federal Forestry Agency, including those related to the implementation of federal programs, plans and individual measures provided for by acts of the President of the Russian Federation, the Government of the Russian Federation and federal executive bodies; the legislation of the Russian Federation. The analysis of open data on the work of the department demonstrates the state of forestry and the vector of development of state policy in the field of forestry relations.

4. The main part
The area of forest lands on the territory of the Far Eastern Federal District in all 11 constituent entities of the Russian Federation as of 01.01.2020 is 555.3 million hectares (48.5% of all forest lands of the Russian Federation), on which the timber stock of forest stands is 24373,3 million cubic meters m (31% of the total timber stock on the lands of the forest fund of the Russian Federation). The forest cover of the territory of the Far Eastern Federal District is on average 49.5% (from 6.8% in the Chukotka Autonomous Region to 77.2% in the Primorsky Territory). The area of forest lands covered with forest vegetation is 334.2 million hectares (44% of the total indicator for the Russian Federation). On the lands of the forest fund prevail maturity and old-growth stands (Table 1), their area is equal to 134,498.5 thousand hectares (40% of the total forested area of the Far Eastern Federal District) with a reserve of 13496 million cubic meters. m (55% of the total timber stock in the Far Eastern Federal District and 30% of the stock of mature forests of the Russian Federation). [3]

| № п/п | The title of specie | Area, thousand hectares | Reserve, million cubic meters |
|-------|--------------------|-------------------------|-----------------------------|
| 1     | Larch              | 198520,1                | 14923,9                     |
| 2     | Pine               | 17325,7                 | 1820,6                      |
| 3     | Stone birch        | 8966,1                  | 824,2                       |
| 4     | White birch        | 20056,9                 | 1265,8                      |
| 5     | Dwarf cedar        | 34729,6                 | 1173,9                      |
These indicators characterize the importance of forests on the territory of the Far Eastern Federal District in ensuring the environmental and economic security of the country, as well as in fulfilling the assumed international obligations.

The primary task of the Department for the Far Eastern Federal District is to conduct a state forest inventory and summarize documented information entered in the state forest register. Forest inventory materials are available for 555.1 million hectares of forest land (99.96%). There are no forest inventory materials for lands previously owned by agricultural organizations in the Republic of Buryatia and in the Amur Region. [4]

According to the existing standards, taking into account the intensity of forest development, actual forest inventory materials (less than 15 years old) are available for 86.2 million hectares (15.5% of forest land). The provision of relevant forest inventory materials varies from 0% in the Chukotka Autonomous Region and Kamchatka Region to 43% in the Sakhalin Region and 81% in the Primorsky Territory. Huge areas of the north of the Far Eastern Federal District in Yakutia, Kamchatka Region, Khabarovsk Territory, Magadan Region, incl. reserve forests are not provided with up-to-date forest inventory materials. The organization of forest seed production is one of the most important activities over which the department controls. The indicator "Stock of seeds of forest plants" was fulfilled by 51.5%, 4.1 tons of seeds of forest plants were harvested against the plan of 8 tons. There is a shortage of seeds of small-coniferous species in the Khabarovsk Territory, the Trans-Baikal Territory, and the Sakhalin Region.

The indicator of the ratio of the area of reforestation and afforestation to the area of felled and dead forest stands of reforestation performed in 2020 was 131.9%, which is 221% higher than the planned value of 59.5%. The target was achieved in all regions of the district except for the Trans-Baikal Territory (59.5%). The indicator "Increase in the area of reforestation" in the district was fulfilled 96.5% fact - 202.8 thousand hectares against the plan of 210.2 thousand hectares.

Indicator "Amount of grown planting material": with the plan of 51.5 million pieces, including 5.6 million pieces with a closed root system. grown 63.3 million pcs. (122% of the plan) including 8.3 million units. with a closed root system (148% of the plan). There is a shortage of planting material in the Primorsky Territory (385.6 thousand pieces), the Amur Region (650.1 thousand pieces), the Jewish Autonomous Region (82.9 thousand pieces).

Reforestation in the Far Eastern Federal District was carried out on an area of 246.2 thousand hectares, which is 96.6% of the planned annual volume (255.0 thousand hectares). of tenants is 45%, the plan is fulfilled by 85% (131.5 thousand hectares).

Work on the creation of forest plantations was carried out on an area of 16.3 thousand hectares or 67.7% of the annual plan (24.1 thousand hectares), including the tenants of forest plots carried out work on an area of 10.4 thousand hectares (share of participation tenants account for 43.1%, the plan was fulfilled by 59.7% (17.4 thousand hectares)). In full, artificial reforestation has been carried out in the Khabarovsk Territory, Sakhalin and Jewish Autonomous Regions, in the Amur Region (99.3% of the planned indicator has been fulfilled).

The indicators were not met in the Republic of Buryatia (80.9% of the planned indicator), the Republic of Sakha (Yakutia) (62.0% of the planned indicator), the Trans-Baikal Territory (76.9% of the planned indicator), Kamchatka Region (25% of the planned indicator). indicator), Primorsky Region (29.3% of the planned indicator).

Natural reforestation was carried out on an area of 228.9 thousand hectares, which is 101.7% of the planned volume of 225.07 thousand hectares. Natural reforestation is fully carried out in all regions, with the exception of the Trans-Baikal Territory (50.6%), Kamchatka Region (94.4%) and the Jewish Autonomous Region (65.3%).

Agrotechnical care was completed by 83.9%. The activities were carried out completely in 3 regions: Primorsky and Khabarovsk Territories, Sakhalin Region. In the Republic of Buryatia, agricultural care was completed by 64%, in the Trans-Baikal Territory by 33.2%, in the Amur Region by 83.4%, in the Jewish Autonomous Region by 93.7% of the planned indicator.
Forest fires are an acute problem in the region. In total, 5,034 forest fires occurred on the territory of the Far Eastern Federal District, which corresponds to the level of last year, but is 30% higher than the average five-year indicators (in 2019, 5,084 fires occurred, an average of 3,864 fires over 5 years). The total area of fires amounted to 8 million 120 thousand hectares, which is 26.6% more than in 2019 and 39% higher than the average five-year indicators (the total area in 2019 was 5.96 million hectares, the average for 5 years – 4,95 million hectares). The number of serviced forest fires was 2,938, which is 4% more than in 2019 and 11% higher than the average five-year indicators (2019 – 2808 fires, average for 5 years – 2618 fires).

The area of serviced fires amounted to 1 million 112 thousand hectares, which is 3.8% more than in 2019, but at the same time is 22% lower than the average five-year indicators (2019 - 1 million 70 thousand hectares, an average over 5 years – 1 million 401 thousand hectares).

In hard-to-reach and remote areas, 2,096 fires broke out on an area of 7 million 8 thousand hectares, for which the CoES and OPB decided to suspend or stop extinguishing. The number of fires in the controlled zones decreased by 8% compared to 2019, but 64% higher than the average since 2017 (the year when fires in the controlled zones began to be counted) (2019 – 2276 fires, average since 2017 – 1245 fires), the area of fires in the control zones increased by 30% in comparison with 2019 and 2.7 times in comparison with the average indicators (in 2019 – 4 million 890 thousand hectares, the average since 2017 – 2 million 565 thousand hectares).

On the first day, 57.7% of the total number of fires were liquidated, which is 11% less than in 2019 and remains at the level of the average five-year values (in 2019 – 65%, the average for 5 years – 57%). The average area of one serviced fire in the district (excluding control zones) is 378 hectares – at the level of the last year and 50% lower than the average five-year indicators (2019 – 373 hectares, the average for 5 years – 551 hectares).

The above statistics show that in 2020 the average and total area of serviced fires remained at the level of 2019 and decreased in comparison with the average five-year indicators, but the area of fires in the control zones increased unacceptably.

The most difficult situation in the spring was in the Trans-Baikal Territory, in comparison with 2019, 32% more fires were served on its territory - 817 (636 fires in 2019), the area of which increased by 70%, from 193 thousand hectares in 2019 year to 329 thousand hectares in 2020, the average area of one fire increased by 25% and amounted to 402.7 hectares, against 303.5 hectares in 2019. A third of the total area of forest fires serviced in the district falls on Transbaikalia. This disappointing statistics speaks of unsatisfactory implementation of preventive measures and a weak level of organization of forest protection.

In 2020, the fulfillment of the forecast for the receipt of payments to the federal budget for the use of forests in the subjects of the Far Eastern Federal District amounted to 103.3%, or 6,625.21 million rubles, including 63.9% or 188 under purchase and sale agreements, 2 million rubles, under lease agreements – 103.7% or 6 346.7 million rubles. Arrears to the federal budget since the beginning of the year have increased in the whole district by 22.7%. The Trans-Baikal Territory has reduced arrears by 6%, in the Republic of Sakha (Yakutia) arrears at the level of last year, all other regions have increased the level of arrears.

In 2020, the volume of financing from the federal budget in the district amounted to 9087.7 million rubles, co-financing from the budgets of the constituent entities amounted to 2,273.9 million rubles, which is 25% of the subventions. The maximum percentage of co-financing in the Sakhalin Region is 123%, in the Primorsky Territory – 54.9%. The minimum percentage of co-financing in the Chukotka Autonomous Okrug is 0.2%, in the Jewish Autonomous Region - 3%, in the Republic of Buryatia - 6.1%.

In the Far Eastern Federal District in 2020, it was planned to conduct forest pathological examinations on an area of 221.8 thousand hectares, sanitary and recreational activities on an area of 73.7 thousand hectares. The total implementation of the planned annual target for forest pathological examinations for 2020 amounted to 77.8%.
The planned target in full for forest pathological examinations was fulfilled in almost all constituent entities of the district, with the exception of: Jewish Autonomous Region (77.3% completed), the Republic of Buryatia (15.2%) and Primorsky Region (3.5%).

**Table 2. Execution of sanitary and recreational works.**

| №  | The title of specie                  | Plan, thousand hectares | In fact, thousand ha | % of completion |
|----|-------------------------------------|-------------------------|----------------------|-----------------|
| 1  | Clear-sanitary cutting (CSC)        | 61,4                    | 5,4                  | 8,8             |
| 2  | Select-sanitary cutting (SSC)       | 9,6                     | 1,7                  | 18,1            |
| 3  | Cleaning of illiquid wood (CIW)     | 2,7                     | 0,6                  | 23,1            |

It should be noted that the planned indicators are fully implemented only in 3 constituent entities of the district: the Republic of Sakha (Yakutia), Amur and Magadan regions. The Sakhalin Region also coped with the overall performance, with minor deviations in the type of work (SSR – 166.9%, HRV – 50.9%, UND – 132.2%).

The worst of all is in Primorsky (40.9%), Khabarovsk (17.1%) and Trans-Baikal (5%) regions.

In use for all types of forest use is 93.7 million hectares of forest land in the district (16.9% of the total area), of which the largest share of land use is in the Primorsky Territory (92.3%), Magadan Region (56.1%).

The annual allowable cutting rate is 117.8 million cubic meters. m, of which 82% falls on clear-cuts, 18% on selective. The development of the allowable cut was 15.7% – 18.5 million cubic meters were harvested. m.

![Figure 1. The largest volume of harvested wood, million cubic meters.](image)

The major percentage of the development of the allowable cut in the Primorsky Region (54%), Jewish Autonomous Region (24%), Khabarovsk Territory (23%), the Republic of Buryatia (26%).

In 2020, on the territory of the Far Eastern Federal District, 3491 facts of illegal felling of forest plantations with a total volume of 181,058,941 thousand m3 were revealed, the total damage from their commission amounted to 4,312,264.574 thousand rubles. Compared to 2019, the number of violations increased by 0.6%, the volume of felled timber decreased by 28%, and the damage caused to forests increased by 17%. The Zabaikalsky and Primorsky Territories account for 65% (118 198 cubic meters) of the total volume of illegally felled timber in the Far Eastern Federal District. On the territory of the Far Eastern Federal District, crimes committed in the field of violations of forest legislation, namely, illegal felling of forest plantations, are of an organizational nature.

An analysis of the current situation with illegal felling of forest plantations in the territory of the forest fund of the Far Eastern Federal District indicates that the main reasons for the increase in the volume and amount of
damage to forests are:
✓ low quality of life of the population, unemployment;
✓ high demand for wood;
✓ the ability to quickly sell illegally harvested timber, the availability of points for receiving and shipping timber, including settlements and private farmsteads not registered on the lands;
✓ increased demand and value for exported timber;
✓ the technique with the help of which the forest violation is returned to the owners (owners), which contributes to the further commission of forest violations;
✓ insufficient material and technical equipment of state forest inspectors;
✓ insufficient number of officials authorized to carry out federal state forest supervision (forest protection), federal state fire supervision in forests. [5, 6, 7]

In order to prevent the facts of revealing a large number of illegal logging of forest plantations of the past years in the territory of the Far Eastern Federal District, measures are being taken on an ongoing basis to identify, suppress and solve crimes related to illegal logging and circulation of wood. Provision of compensation for damage caused to the state by illegal felling of forest plantations, collection of imposed amounts of administrative fines for illegal felling of forest plantations, collection of imposed amounts of administrative fines for illegal felling of forest plantations. Ensuring updating of information on offenses and crimes related to illegal logging. Informing citizens through the media about measures aimed at curbing illegal logging and turnover of timber. [8, 9]

5. Findings
Summing up the analysis of the annual report of the Forestry Department for the Far Eastern Federal District, it seems that modern forest management is characterized by a formal approach to assessing forest management. The Forestry Department exists as a statistical body that records data from the annual reporting of entities. Separate statistical data by areas of work do not demonstrate the features and problems of each subject, which in some issues, and it is incorrect to compare with each other. Forests are perceived as a raw material base that can be exploited to the maximum. And the restoration of forest resources is left at the mercy of the natural forces of nature (promoting natural reforestation). Whereas the preservation of the environment-forming, water-protective, protective and health-improving functions of forests is possible with the full rehabilitation of the exploited forest. Having now relegated to the background issues of preserving the environment, biodiversity, and meeting social needs, we will face in the future the need to spend much greater resources (human, time and financial) to restore the lost balance.

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