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Author(s)	ANTONOVA, Natalia Ye.; SHEINGAUZ, Alexander S.
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Forest Sector of Khabarovskiy Krai – Problems of Economy and Management in a Heavily Wooded Province of the Russian Far East –

ANTONOVA Natalia Ye.* and SHEINGAUZ Alexander S.

Economic Research Institute,
Far Eastern Division of the Russian Academy of Science,
Tikhookeanskaya str. 153, Khabarovsk, 680042 Russia

Abstract

Khabarovskiy Krai is a typical heavily wooded province of Russia. Before the economic reforms in Russia (in the early 1990s), forest use in the Krai was characterised by depletion. Market transformation has allowed for more depletion and intensified forest use problems. In this paper, the state of forest resources and their use are analysed. Special attention is paid to the forest management system, especially an analysis of the relationship between federal and provincial governments in this system. The state of the forest management system during the transformation from a centralized to a market economy is described, and some unsolved key problems are identified.

It was ascertained that spontaneous restructuring of the forest sector had worsened forest resource use and had enhanced its foreign trade orientation. Numerous successive reorganizations of forest management system have made it intricate and non-clear. This situation has a negative impact on management effectiveness.

Key words: forest resources, Khabarovskiy Krai, forest management system, transition economy.

Introduction

Khabarovskiy Krai is one of the 89 Russian provinces and is located at the eastern end of Russia that is part of the Pacific Rim. It has abundant forest resources. The structure of the forest industry in the Krai has always been typical for the area that is a raw material base and is dominated by extractive industries. During the economic crisis, this situation has worsened considerably and the share of logging has grown dramatically compared to timber processing. In 2000, it constituted 90.5% of total forest product output. A major reason for such specialization is catering of the local forest sector to export of logs but not processed wood.

There were numerous changes in forest use management during the last 80 years on federal and provincial levels. In particular, drastic changes took place during the 1990s, the period of transition from a totalitarian to a market economy. This period is usually called as "transition period". They transformed the forest sector negatively. The last of such changes started on the federal level on May 2000 and are continuing now. Their goal was to strengthen federal power in the sphere of natural resource use. Amalgamation of such different departments as Forestry Service, Ecological Agency and other agencies in one monstrous ministry was

chosen as a method to fulfil the goal.

At the same time the Administration of Khabarovskiy Krai is trying to intensify efficiency of allocation of forest resources to users and to increase control on resource use. Its main goal is to promote the development of the forest industry, to provide on this base for as employment and the living standards of the local population, to increase Krai budget funding and to support the sustainable use of forest resources (Antonova, 1999). The methods of forest management and management structure created by the Krai Administration reflect this intention, however the last federal reform of natural resources management can put significant obstacles in the way of the provincial authority to realize its goals.

The purpose of this paper is to describe the state of the forest resources and to highlight the basic economic and management problems in the contemporary forest sector of Khabarovskiy Krai.

Materials and Methods

The major methods of the research are as follows:

An analysis of forest resource data;

An economic analysis of state statistic information and data of forest government bodies in Khabarovskiy Krai;

A study of federal and local legislation related to

forest use management;

An analysis of institutions in the forest sector, especially structural analysis and analysis of relationships between different levels of management and gaps in their relations.

Results

1. Forest Resources

By state inventory data as of January 1, 2000, the total area of forest lands in Khabarovskiy Krai is 73.7 million hectares, 50.9 million hectares or 69.1% of which are covered with forests. The other 22.8 million hectares are non forest areas. Growing stock is 5.1 billion m³ including 3.0 billion m³ of mature and over mature forests. The majority of forests consists of coniferous species, mainly larch and spruce (Table 1).

Russian forest legislation divides all forests into three groups. In Khabarovskiy Krai the area of the 1st forest group (protected) makes 9.2 million hectares (12.5%), the area of 2nd forest group (exploitable-protected) is 1.1 million hectares (1.5%), and of the 3rd forest group (exploitable) is 63.3 million hectares (86.0%). Khabarovskiy Krai includes over 200 specially protected territories including 6 state natural reserves that cover 1.7 million hectares.

Forest coverage of the Krai territory makes up 64.2%. Growing stock is 100 m³/ha on the average of all timber stands and 141 m³/ha on the average of mature and over mature stands. The long-term dynamics of forest resources has a tendency toward reduction of mature and over mature stands, increase of deciduous forest share and decrease of average density and commercial value of stands. A significant part of the Krai's forests is developed and transformed from virgin to secondary types, their average transformation making up 51%. The most productive and economically accessible cedar-broadleaf and fir-spruce forests are seriously depleted as a result of long-term, and often irrational, use as well as of fires (Antonova et al., 2000).

A specific role in the state and dynamics of forest resources belongs to forest fires and above all, catastrophic fires that break out once every 10–13 years. The latest such instance was observed in 1998 when fires covered an area of 1.8 million hectares. As a result of those disastrous fires the area of forests has decreased by 3% and total growing stock decreased by 5% during 1998. The extensive violation of carbon accumulation and high carbon dioxide emission caused by these fires has grown into an international problem whose urgency and economic nature is seriously examined by the international community and above all by the Asia-Pacific Rim countries (Yamane, 2000).

The biologically possible annual allowable cut (AAC) of Khabarovskiy Krai is calculated at 27.5 million m³. However actual operating AAC with the application of traditional methods and current logging

technologies constitutes only 17.6 million m³ including 14.4 million m³ of coniferous timber. The share of the accessible AAC use has grown for the last three years from 18.9% in 1998 to 28.3% in 1999 and to 33.1% in 2000. An especially large increase was manifested by cutting of oak and ash timber although they did not make up a large volume compared to coniferous cuttings.

In spite of such a significant transformation, the vast forest resources of Khabarovskiy Krai as a whole can still submit to the transition to sustainable forest use.

2. Situation in the Forest Industry

The role of the timber industry in Khabarovskiy Krai's economy has declined as compared to the end of 1980s. Its share of production in the total industrial output declined from 13.3% in 1990 to 10.6% in 2000. However the devaluation of the ruble during the financial crisis of 1998 created a shift in economic dynamics. From 1998 to 2001, the Krai's forest sector has been manifesting production growth that made up harvest - by 64%, commercial timber - by 76%, sawn timber - by 58%. But the results are not so remarkable compared with 1995 because there is an increase of only harvest and commercial timber output (Table 2).

The production growth and more real exchange rate of ruble vs. US dollar and Japanese yen caused improvement of financial indicators in the forest industry (Table 3). This improvement mainly refers to the logging industry, which has a sufficient forest resource base to regain the position that existed before the economic crisis of late 80s. Wood processing has already lost its base and large investments are needed for its reconstruction.

Logging has traditionally been directed at the production of qualitative raw materials against a detriment in the forest resource base. Harvesting uses mainly high grade methods and the bulk of low-grade trees, pulpwood, small-diameter logs and fuelwood comprising up to 60–70% of the growing stock remains unharvested (Sheingauz, 2000).

The largest share of timber harvesting belongs to four districts in the central part of Khabarovskiy Krai: Vaninskiy, Solnechniy, Komsomolskiy and Ulchskiy raions. These districts account for almost two thirds of the Krai's timber output.

In 1999 there were more than 500 loggers, 80% of whom were small-scale forest users producing less than 5,000 m³ of timber per annum. In 2000 the number of loggers decreased to 300 mostly because small business reduced under pressure from the Krai's Administration because a majority of them violated harvest regulations. Another 15 percent consisted of middle-scale firms and only 26 logging firms belonged to the category of big business with annual harvest over 50,000 m³ including 9 users, each of which produces 100,000 m³ of timber and more.

Table 1. Area of forests and growing stock in Khabarovskiy Krai, January 1, 2000

Species	Area of forests		Growing stock	
	million ha	%	billion m ³	%
1. Coniferous	37.8	74.5	4.3	84.4
(Larch)	(28.3)	(55.7)	(2.7)	(54.3)
(Spruce and Fir)	(7.9)	(15.5)	(1.3)	(25.5)
(Korean Pine)	(0.5)	(1.1)	(0.1)	(2.3)
(Common Pine)	(1.1)	(2.1)	(0.1)	(2.3)
2. Deciduous	6.7	13.2	0.5	10.2
3. Others	6.3	12.4	0.3	5.4
Total	50.8	100	5.1	100

Source: Database of Economic Research Institute, 2000

Table 2. Output of Forest Products in Khabarovskiy Krai

Product	1990	1995	1997	1998	1999	2000
Round timber, total, thousand m ³	11593	4564	4457	3325	4974	5460
Commercial logs, thousand m ³	9507	3453	3633	2708	4228	4776
Sawn timber, thousand m ³	1541	314	206	146	158	230
Wood chips, thousand m ³	506	105	66	58	68	57
Pulp, thousand t	264	27	-	-	-	-
Cardboard, thousand t	156	5	3	4	4	5
Plywood, thousand m ³	6.2	-	-	-	-	-
Chipboard, thousand m ³	91.2	15.0	8.9	5.1	5.1	2.2
Fiberboard, million m ²	22.2	4.9	3.0	2.6	2.8	1.6

Source: Database of Economic Research Institute, 2000.

Table 3. Profitability of Forest Industry in Khabarovskiy Krai, %

Industry	1996	1997	1998	1999	2000
Forest Industry, total	-16.9	-9.7	-17.5	13.9	13.2
(Logging)	(-11.0)	(-18.4)	(16.9)	(17.0)
(Wood Processing)	(-19.4)	(-12.9)	(0.8)	(0.1)

Source: Database of Economic Research Institute, 2000

Loggers' insufficient funding and lack of federal support financing do not give forest enterprises opportunities for technical refitting and reconstruction for production. It results in aging of fixed assets. Experts estimate depreciation of logging equipment by 70 to 75%. More than 70% of wood processing machinery is obsolete physically and technologically. Use of logging production capacities in 1998 made up 34% and in 1999 43%.

The construction of year-round roads for timber transportation has been reduced or totally ceased by some enterprises. State logging firms with annual output of about 250,000 to 400,000 m³ were divided into many small firms during privatization in 1992–1995. Division of large enterprises into smaller ones and splitting of timber resource bases is one of the reasons for the sharp decline in the construction of roads. Today it has become the main problem of production.

About 100 enterprises that have different ownership types, levels of production organization, supply with wood and finances are processing timber in Khabarovskiy Krai now. They manifest a profound recession of output, reduction of capacities, financial instability and indebtedness to the state budget. The production of sawn-timber as compared to 1990 has declined 9 times, of chipboard – 41 times and of cardboard – 31 times. Plywood, pulp, and paper production has stopped.

Due to increasing production costs, obsolete equipment, and output of low quality products, the competitiveness of processed wood production in foreign and domestic markets has declined considerably. In this situation it has become clear that the orientation of the forest industry and its timber export sector toward the production of round timber is fatal, especially since foreign markets started to demand forest products of constantly increasing quality and marketability (Antonova *et al.*, 2000).

Thus the timber complex remains without utilizing low-grade timber and by-products, without which it cannot function properly.

Activity on the foreign market is one of the key constituents of the Krai's forest sector. The volume of round timber export grew from 2.5 million m³ in 1995 to 4.4 million m³ in 2000. The share of timber products in the total export of Khabarovskiy Krai was 18.0% in 1999.

Over the last four years the number of exporters has grown to 200, which entailed keen but not always conscientious competition among them, and as a result, a drop in export prices, declines in product quality and loss of their niches in timber markets. According to reports of Russian traders between 1996 and 2000, Russian timber prices have declined in the Japanese market from \$137 to \$79 per 1 m³. The major losses are connected with a low level of log marketing. For example, most logs are not graded by quality, which

entails a loss by Russian exporters of tens of millions of dollars annually.

The main problem is shipment of unprocessed timber. In 1999, the share of round timber in timber export of Khabarovskiy Krai reached 95.0%. At the same time, only 40% of the round timber produced in the Krai meet the requirements of sawlogs for the Japanese market. The share of sawn-timber was only 4.7% and of wood chips - 0.3%. The export of wood chips has declined 12 times over the last 10 years and now amounts to 12,000 tons. Other timber products are lacking in export assortment in Khabarovskiy Krai now.

3. Forest Use Management System

The basic legislative documents that regulate forest use are the Constitution of the Russian Federation (hereafter RF), the Civil Code of the RF, the Forest Code of the RF (enacted in 1997), and the Forest Code of Khabarovskiy Krai (enacted in 1998). They are serving as a basis for the development of a number of legislative documents at the federal and provincial levels, which regulate different state management aspects of forest use.

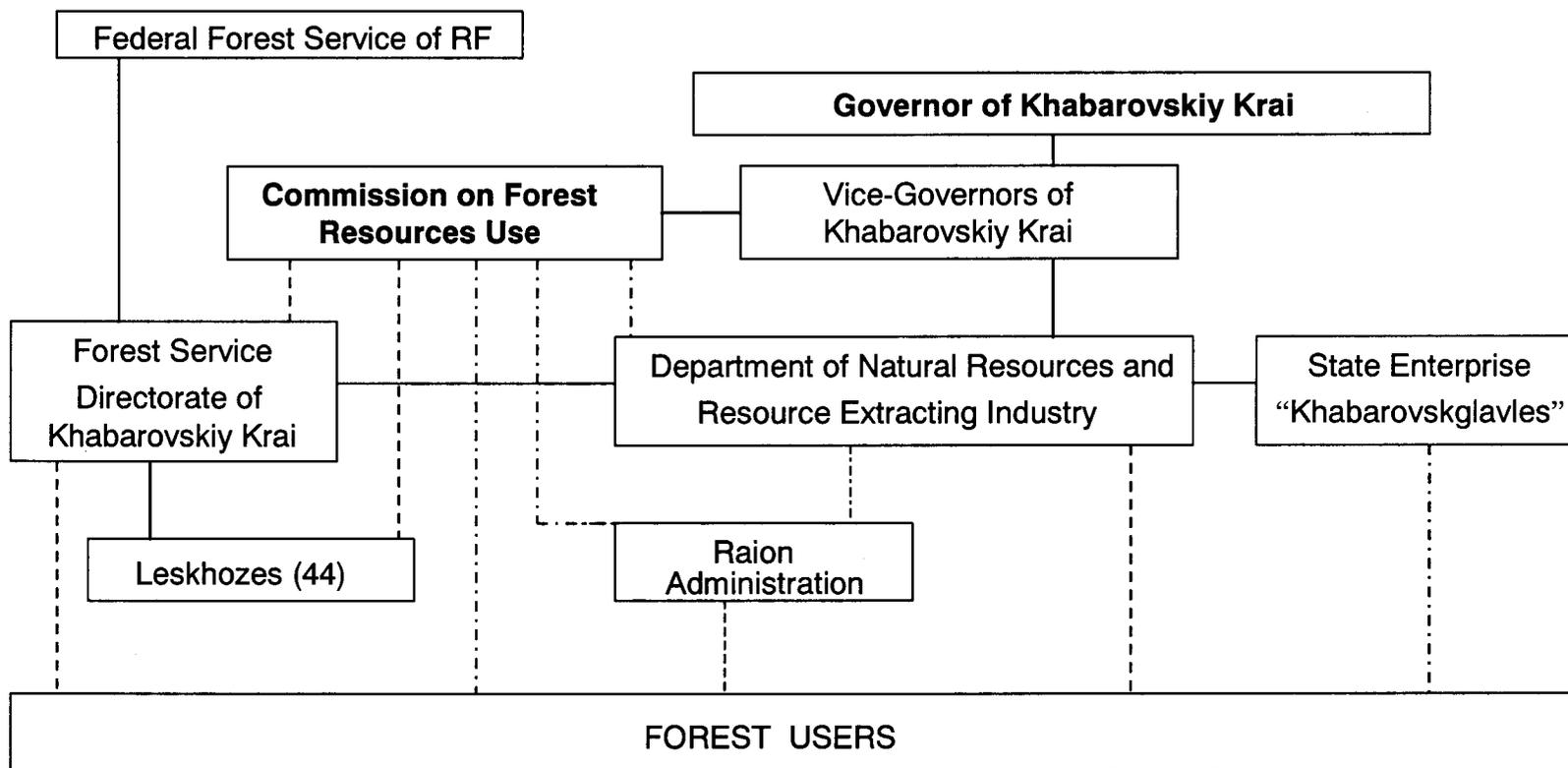
According to the Forest Code of the Russian Federation, the majority of forests in Russia are state federal property. The federal and provincial governments have joint rights to govern forest resources. According to the existing order, the provincial authority on behalf of the Federation and on the basis of its rights provides users rights to use forest resources.

The forest management system created by the Administration of Khabarovskiy Krai.

The forest management system in Khabarovskiy Krai corresponds to the goals of the Krai Administration in respect to forest resources use (Figure 1). The main goal is to intensify its influence on economic processes inside the forest sector that would be based on federal and local legislation. The main methods of forest use management include licensing, delivery of forest lots for use, collection of forest payments, and control of forest use (Table 4).

Licensing gives users the right to conduct activities in the forest. The main criteria to obtain a license are production capacities for the declared output, skilled staff, and the absence of debts to the state budget. In Khabarovskiy Krai, licensing is fulfilled by a Licensing Commission under the Department of Natural Resources and Resource Extracting Industry in the Krai Administration on the basis of the regulations on the licensing procedure.

Delivery of forest lots for use is fulfilled by the Krai Commission on Forest Use. The Commission consists of representatives of federal and Krai bodies, as well as academic and business structures related to forest use. The basic functions of the Commission are allotment of forest lots to users on a competitive



Functions:
 — subordination - - - - - control - · - · - · coordination

Fig. 1. The Structure of Forest Use Management in Khabarovskiy Krai before May, 2000

Table 4. Federal and Krai legislative acts for the forest management basis

Methods of management	Legislative acts	
	Federal	Krai
All methods	Forest Code of the Russian Federation	Forest Code of Khabarovskiy Krai
Licensing		Interim regulations on the licensing procedure for logging activities in the Khabarovskiy Krai forests. (Decree of the Head of the Khabarovskiy Krai Administration of April 13, 1999 No 164)
Delivery of rights for forest resource use	<ul style="list-style-type: none"> Regulations on lease of growing timber in forests of the Russian Federation. (The Decree of the RF Government of June 1, 1998 No 551). Regulations on the procedure of holding forest competitions to lease lots of the Russian Federation forests. (The Order of the Federal Forestry Service of September 30, 1997 No 123). Regulations on the lease of forest lots. (The Decree of the RF Government of March 24, 1998 No 345). Regulations on allotment of forest lots for free use. (The Decree of the RF Government of February 18, 1998 No 224). 	Regulations on the procedure of interaction of Khabarovskiy Krai Government bodies when holding competitions for the right to lease lots of the Khabarovskiy Krai forests. (The Decree of the Head of the Khabarovskiy Krai Administration of January 31, 2000 No 28).
Collection of forest payments	On minimum payment rates for the lease of growing timber. (The Decree of the RF Government of February 19, 2001 No 127).	<ul style="list-style-type: none"> On principles of calculating rates of forest duties and a rent for the forest use within Khabarovskiy Krai (The Law of Khabarovskiy Krai of June 28, 1995 No 11). On the Khabarovskiy Krai fiscal system for 2000. (The Law of Khabarovskiy Krai of December 28, 1999 No 164).
Control of forest resource use	<ul style="list-style-type: none"> The procedure of state monitoring by the Federal Forestry Service of RF and its territorial bodies, of the conditions, use and protection of forests and forest reforestation. (The Decree of the RF Government of June 1, 1998 No 544). Sanitary regulations in forests of the Russian Federation. (The Order of the Federal Forest Service of January 15, 1998 No 10). 	

Source: Collections of Legislation of the Russian Federation and Khabarovskiy Krai.

basis and control of their use. In reality it defines the Krai forest policy on behalf of the Krai Administration. The basic normative acts that regulate the transfer of resources in Khabarovskiy Krai are the Forest Codes of the RF and Khabarovskiy Krai, a series of provincial legislative acts, and governor's decrees.

According to the Forest Codes, forest resources can be transferred for long-term (more than 1 year) and short-term (less than 1 year) use on a competitive basis. The Krai Committee for State Property Management is in charge of organizing forest competitions (tenders) for the forest lease because it is responsible for trade in leasing rights of all state property within the Krai's territory.

The criteria for the competitions are: holding of license; the amount of an advance; proposals for participation in the social and economic development of the raion; availability of technical and financial resources to develop forest resources; the minimum share of timber that will be processed. Other conditions can be added to the mentioned above.

After decision of the Commission, the user, who has won competition and *leskhoz*, make a lease agreement that fixes all rights and engagements of both sides. Violation of any agreement condition can be grounds to withdraw the forest lot from the user.

After 1998 the Krai Administration tried to reduce the number of forest users and to enlarge forest enterprises because small users could not build forest roads and maintain forest settlements. For that purpose, the Krai Commission on Forest Use endeavours to promote competitions for forest lots with AAC no less than 30,000 m³. As a result, the number of leasers in the forests has been reduced considerably. The total number of forest leasers in Khabarovskiy Krai at July 1, 2000 was 137. They leased 169 forest lots located in 30 *leskhoz*es with a total area of 8,354,000 ha and growing stock of 569.0 million m³, which makes up 51.6 percent of the Krai forests that are available for development.

In case of short-term use, a user doesn't sign an agreement. It receives from *leskhoz* a special permission document called a "felling ticket".

The Krai forest policy emphasizes long-term use, which is performed contrary to deconcentration of production that has occurred in the forest industry over the first half of the 90s.

Payment for timber resources consists of different kinds of fees. The main fees among them are forest duties and rental charge. The forest duties are taken for short-term use as stumpage fee, and rental charge for long-term use. The amount of forest payments is calculated on the basis of minimal stumpage fees that are approved by the Federal Government decree. In Khabarovskiy Krai, rent for forest use is determined as a sum of the minimal stumpage fee and the extra rental charge. In case of short-term use, payments are fixed on

the level of a minimum stumpage fee.

Payments for forest use are constantly growing in terms of rubles, but in dollar equivalent this growth occurred only before the financial crisis in 1998. In 1999, the forest fees in terms of dollars slightly exceeded the level of 1995 and was \$0.61 per 1 m³ in 1995, \$0.78 in 1999 and \$0.74 in 2000. In the beginning of 2001 the Federal Government enacted a new pricelist, that increased minimum stumpage fees for most species of Khabarovskiy Krai by more than 2 times. The highest rates of payment are for species with increasing demand in foreign market such as ash, oak, and maple.

According to the Forest Code of Khabarovskiy Krai, distribution of payments is as follows: 40% to the federal budget, 40% to the Krai budget, and 20% to the municipal budget. However it can and must be clarified each year by the provincial law on the Krai's annual fiscal system. For example in 2000, another distribution of forest payments was established by the Legislative Duma (provincial Diet) of Khabarovskiy Krai: 40% minimum stumpage fee was delivered to the federal budget, 60% to the Krai budget and no one percent to municipal budgets; the amounts above minimum level was delivered to *leskhoz*es for silvicultural needs. The land tax for the forestlands was allocated to the municipal budgets. Such order works for only one year and will be either approved or changed the next year.

In order to improve management of the forest industry the state office "Khabarovskglavles" has been established by the Krai Administration. The basic functions of "Khabarovskglavles" consist of: management of the state share block at the timber industry enterprises; regulation of export; elaboration of recommendations for the expansion of the tax base of timber industry enterprises; promotion of the development of wood processing etc. Its establishment indicates the continuing tendency to strengthen direct management of the forest sector by the Krai Administration.

Control of timber resource use is regulated by a number of federal normative acts. The key instruments of influence on the forest users are penalties, compensation for damages, administrative pressure, and up to suspension of work or shutdown of an enterprise. The penalties for violation of forestry regulations and other forest penalties must be used basically for regeneration of forests and fire control.

At the same time federal government bodies manage forest resources in Khabarovskiy Krai. Until May 17 2000, the Forestry Service was a representative of the state. The provincial Forestry Service Directorate (*Upravlenie Lesami*) existed in the Krai and had double subordination; under the Federal Forestry Service and under the Krai Administration. It coordinated all basic decisions with the Department of Natural Resources and Resource Extracting Industry of the Krai Administration. *Upravlenie Lesami* supervised 44 basic

forestry units (*leskhoz*s). The basic functions of *leskhoz*s are fire protection, reforestation, issue of permit documents for activities in forest, the control on fulfillment of the forest regulations etc.

Parallel with *leskhoz*s the Krai Committee of Ecology and its district (*raion*) divisions fulfilled the control on the activities of forest users in the Krai. The Krai Committee of Ecology was subordinated to the Federal Committee of Ecology.

The federal reform of forest resource management and changes in forest management in Khabarovskiy Krai

The Federal Forestry Service, Federal Committee of Ecology and their territorial subdivisions were abolished by the Decree of the Russian President on May 17, 2000 (The RF President's Decree, 2000b). The Forestry Service and the Ecology Service were included into the Ministry of Natural Resources. Now the Department of Forest Use and Reforestation of the Ministry conducts federal forest management in Russia.

At the same time, the reform of territorial management system was going on according to another Decree of the RF President (The RF President's Decree, 2000a). The country was divided into seven federal districts (*okrug*) under leadership of President's Representatives. The main function of the Representative is control over provincial legislation, correction them in accordance with federal laws and realization of the state policy defined by the Russian President.

Far Eastern Okrug became one of such districts. On the Okrug level, the Far Eastern Department of the Ministry of Natural Resources was established. It included the forest division that supervised both forestry of the Russian Far East as a whole and forestry of Khabarovskiy Krai in particular.

Figure 2 illustrates the forest management structure in Khabarovskiy Krai in the beginning of 2001. The Far Eastern Department of Natural Resources is subordinated to the Ministry of Natural Resources and coordinates with this Office of the President's Representative in the Far East. *Leskhoz*s as basic units of the state forestry service submit to the Department of Natural Resources. The degree of their economic independence and share of federal financial provision are unclear so far.

Now the forest management structure and the structure of forest resource use do not coordinate anywhere except the Krai Commission of Forest Use, so the Commission's role in the implementation of the Krai's forest policy is increasing.

Discussion

Economic problems

The market economy transition has worsened conditions of forest use allowing for still more depletion. However, the problems of degradation of production and labor potential and curtailment of wood

processing are the most negative change.

The forest industry of Khabarovskiy Krai will come to the limits of high-quality timber harvest, so its further development can only be made on the basis of complete processing of total timber, especially of low-grade timber. Such a situation will influence the Krai's export and demands urgent efforts for the development of timber processing, especially for mechanical processing, which creates products with higher and more stable prices.

The necessity to develop wood processing is also justified by the potential to provide 4 times as many workplaces when using mechanical processing and 10 times as many workplaces when using chemical processing as compared to logging and sale of round timber. Unfortunately, there is the problem of quality labor shortage for the development of both logging and wood processing.

The current market demands that forest companies use more ecological and modern technologies of logging and modern trained forest workers. The development of a forest education system is one of the basic task for the forest sector in Krai (Kakizawa, 2000).

The management problems

The forest management system is characterized as a transitional one. On the one hand it is maintained with a considerable number of legislative documents, but on the other hand many informal levers are implemented inside the system, especially by the Krai Administration. For example, the Krai Administration tries to enforce the forest companies to maintain the social infrastructure of forest settlements, to dictate the level of export prices to forest firms, and so on.

Reasons for existence of informal relations are as follows.

Firstly, such informal relationships are caused by the imperfection of the legislative base, especially with the shortage of the interconnection between legislation on federal and local levels relevant to forest resource property. The rights of tenure, management and use of forest resources have unclear distribution among stakeholders. Hence it is raising some contradictions. The last reorganization of forest management is directed to eliminate the contradiction between federal and local governments in favour of federal government.

Secondly, the existing informal relationships are a reaction of the management system to the problems of the transitional economy. The Krai Administration had no management experience in the new economic situation and is turning slowly from an old administrative management system to a new one with major difficulties. It is possible to conclude that the Krai Administration attempted to create direct leadership in the forest sector during the last 5 to 6 years (Antonova, 1999).

The existing system of the forest management in Khabarovskiy Krai was aimed to increase the efficiency

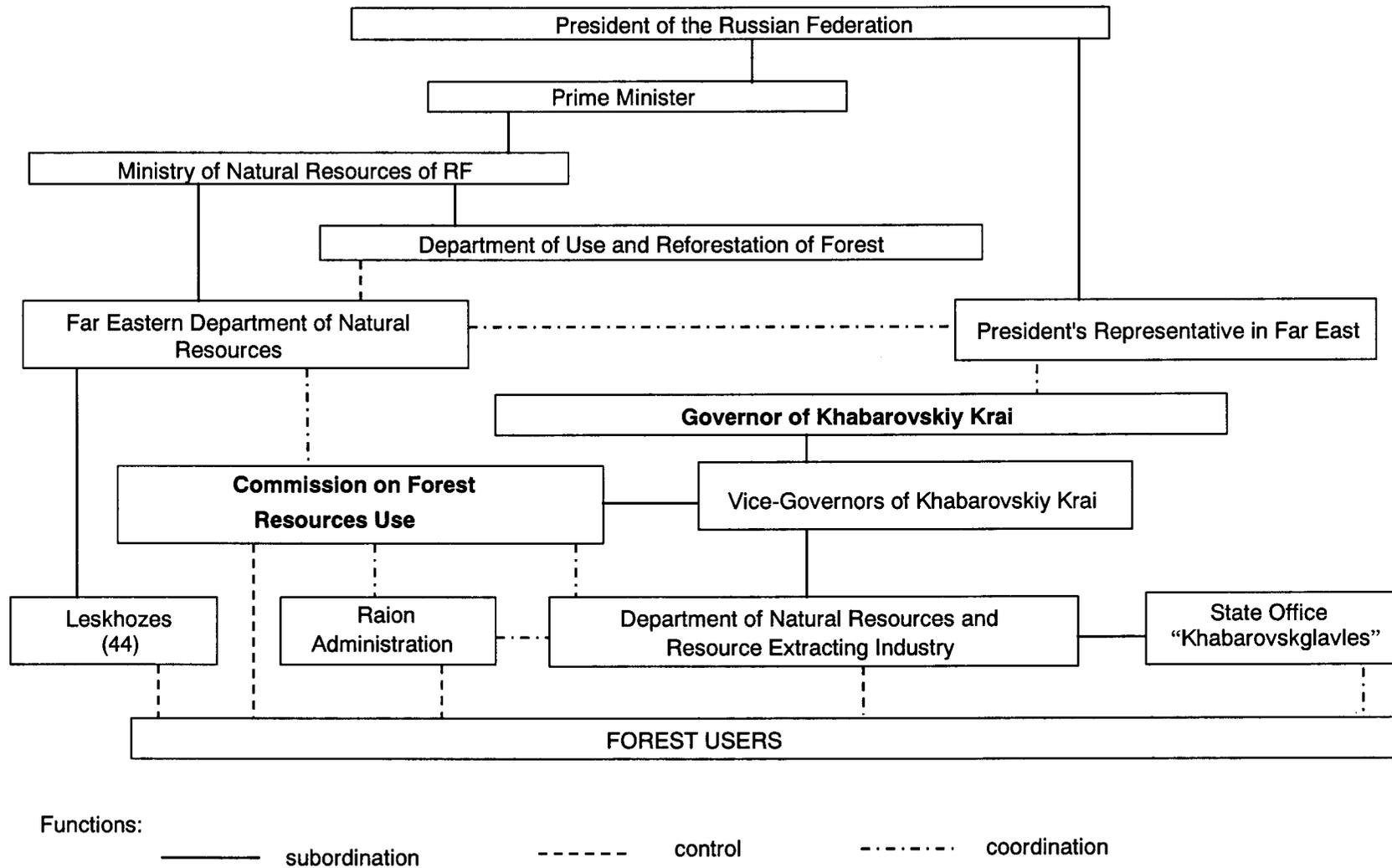


Fig. 2. The Structure of Forest Use Management in Khabarovskiy Krai at the beginning of 2001

of forest resource allocation and the control of their use. Unfortunately the results of these efforts are ineffective because of a few reasons.

One reason is that the low payment for forest use means that the rent is not received by the resources' owners (RF and Khabarovskiy Krai) in full and is instead received by the forest users. It is necessary to have a mechanism of a reliable calculation of rent, its full collection and redistribution to the real owners of forest resources (Sheingauz, 2000).

The other causes are the curtailment of federal financing of forestry service, continuous reduction of the forest guard and their wage rates. It makes control of forest users very ineffective. Leskhozoes must provide for their own financing, but they are forbidden to carry out commercial felling. All of these circumstances cause an increase in forest guard corruption and the extension of illegal logging of valuable species, especially by means of intermediate felling.

Nevertheless the Krai Administration is trying to manage forest use processes and so far the Krai forest management system is evaluated as one of the workable systems in Russia.

The renovated forest management structure in Khabarovskiy Krai is still in the reorganization stage. The purpose of the renovation is to strengthen federal power, to divide responsibility between federal and Krai bodies, to make order in federal territorial bodies because the functions of Krai government bodies often overlap, but at the same time do not execute the control functions (Putin, 2001).

Therefore, it is too early to give any evaluations of new changes. In fact, the new structure is becoming more complex, and the relationships between federal and Krai levels are more multistage. At present there are many new overlapping connections between the Ministry of Natural Resources bodies and Krai Administration ones, but at the same time some functions are not covered by any of them. The gaps, which are now in the new forest management structure, especially in control system, can play a destructive role in the forest sector.

It is possible to assume that the strengthening of the federal authority supposes some weakening of the Krai Administration influence in the forest sector, especially to regulate transfers of forest use rights and to control forest users.

Conclusions

Thus, the general features of the forest sector in the Krai's economy in the transition period are as follows:

- Decline in product output until 1998 and increase during 1999–2001. In 2000 the forest companies harvested 5.46 million m³ of timber that was at its highest index during the last 8 years.
- Spontaneous restructuring, which has led to the share reduction of processed wood, simplification

even primitivization of product assortment, worsening of forest resource use.

- Enhancement of foreign trade orientation of the forest sector.
- Reinforcement of product competitiveness problems and the difficulties in solving them.
- Decline in reproduction of fixed assets, technical and physical aging and deterioration.
- Decline of labor productivity (Antonova et al. 2000).

The restructuring of forest resource management is continuing from the mid-May 2000 till the end of 2001. It has a negative impact on management effectiveness, especially because it did not clarify relationship among central, okrug' and Krai' management bodies but confused them, creating new overlap between responsibility of federal and provincial forest departments. The latter makes management of forest resource use unclear and difficult. The situation must be improved because the forests of Russia and of Khabarovskiy Krai (one of the heavy-forested Russian province) are very valuable treasures and it is unconscionable to treat them so thoughtlessly.

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