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**Institutional Change and Transition in
the Forest Sector of Khabarovsk Krai**

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Foreword

With this report on the forest sector institutions in Khabarovsk Krai the third study in a series of case studies that IIASA has initiated in different regions of the Russian Federation is completed. The first study was conducted in Tomsk Oblast. That study was reported in Carlsson and Olsson, 1998a; Carlsson and Olsson, 1998b; and Carlsson, Lundgren and Olsson, 1999. In a second report (cf. Carlsson *et al.*, 1999) the institutional embedding of the forest sector of Arkhangelsk Oblast was analyzed. Reports on studies in the Karelian Republic (Piipponen, 1999) as well as in the regions of Moscow (Kleinhof *et al.*, 1999), Murmansk (Ivanova and Nygaard, 1999), Krasnoyarsk (Sokolova, 2000), and Irkutsk (Blam *et al.*, 2000) are currently being finalized. All these studies deal with institutional aspects of the Russian forest sector.

In Khabarovsk, one of the authors of this report, Dmitry F. Efremov, Director of the Far East Forestry Research Institute, has served as the local coordinator. Alexander S. Sheingauz was mainly responsible for data collection and analysis. The field work has been performed by a group of experts. We gratefully acknowledge the help of: L.V. Beloglazova, Far East Forestry Research Institute (researcher), F.F. Frolov, Forest Management of Khabarovsk Krai (deputy chief), and N.N. Pankratova, Far East Forestry Research Institute (researcher).

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A Note on Russian Concepts and Transliteration

In this report we have directly used the Russian names of the most common organizations operating in the forest sector. So, for instance, a forest management enterprise is called a *leskhoz*. There are various “departments” in a *leskhoz*, such as *lesnichestvo* (forest district), *uchastok* (forest compartment), and *obkhod* (forest tending plot). A forest harvesting enterprise is called a *lespromkhoz* — actual logging in a *lespromkhoz* is performed at a *lesopunkt*. (In the 1990s, with the privatization of many harvesting enterprises, the concepts of *lespromkhoz* and *lesopunkt* are often no longer used.) In this as well as in other case studies we are dealing with the regional level. Regions are so-called *Subjects of the Federation*. There are many various types of “Subjects”, a region would typically be a *Respublik* (Republic) or an *Oblast*’ (a county). In the Khabarovsk case, however, it is a so-called *Krai*. The basic municipal unit in Russia is the *raion*. In analogy with the use in our earlier case study reports (on Tomsk and Arkhangelsk) we are also using the Russian plural forms of these concepts, i.e., *leskhozy*, *lesnichestva*, *uchastki*, *obkhody*, *lespromkhozy*, *lesopunkty*, *Oblasti*, *Kraii*, and *raiony* respectively. The transliteration of Russian names and concepts follows the United States Library of Congress standard, except for publicly well-known names, where the established English newspaper spelling has been used.

Institutional Change and Transition in the Forest Sector of Khabarovsk Krai

Dmitry F. Efremov, Lars Carlsson, Mats-Olov Olsson and Alexander S. Sheingauz

1. Introduction

The working hypotheses for this study¹ can be summarized in two statements:

- 1) The restructuring of the Russian economy can hardly be successful without fully integrating the forest sector.
- 2) The abundant Russian forests cannot be regarded as a “resource” in an economic sense without the establishment of a suitable institutional framework.

Starting with the latter statement, trees and forests are not an economic resource just because they are standing out there in nature! All types of forest use require regulatory systems to constrain the activities of those who use the resource, and, correspondingly, without any regulating mechanisms we can hardly claim that a particular forest is a “resource,” neither in an economic sense nor in the sense of representing a use value. As we shall see, the mechanisms regulating forest use in Russia today is largely deficient or malfunctioning. Thus, as a matter of fact, today the Russian forest sector does not represent such a huge and important economic resource as is often claimed. Statements about Russia’s huge forest “resources” that are commonly heard rather reflect the fact that Russia, within its territory, holds an immense area covered with forests, which, under certain favorable conditions, might generate income and welfare. Therefore, it may be more accurate to say that the Russian territory holds an asset in the form of forests that doubtlessly has the “potential” of serving as a resource for the creation of welfare among the people. But, this is not the same as to equalize the existence of a large forest fund with resource abundance.

Contemporary research indicates that the wood supply from the USA, Canada, and the tropical areas will decline. Russian forests are underexploited and have the potential to fill the expected supply gap (World Bank, 1997:44). Whether or not they will actually be able to do so is, however, primarily dependent upon whether adequate *institutional arrangements* will be developed in order to smoothen the entrance of the Russian forest sector on this new market. In this context, it is important to emphasize that institutional

¹ As this study is one among a number of case studies conducted by IIASA, the introductory chapter is virtually the same in this report as in the others. The following reports have been published: Carlsson and Olsson (1998a), Carlsson and Olsson (1998b), Carlsson, Lundgren and Olsson (1999), Carlsson *et al.*, (1999), Efremov *et al.* (1999), Kleinhof *et al.* (1999), Piipponen (1999), Ivanova and Nygaard (1999).

arrangements are not primarily to be understood as formal organizations and formally written laws and regulations. Institutions are “the rules of the game,” i.e., those formal or informal rules that are *de facto* used by a set of actors. With Pejovich (1998:23) institutions can be defined “*as the legal, administrative and customary arrangements for repeated human interactions*.” Their major function is to enhance the predictability of human behavior. The prevailing institutional framework in a society consists of formal and informal rules” (emphasis in original). Such an institutional framework, well functioning, is a basic prerequisite for the future development of Russian forestry. Logically, a poorly governed Russian forest sector will be a severe obstacle for the transition to a market economy.

The aim of this project is to describe and analyze the current institutional framework of the Russian forest sector. This is done through a series of case studies in several Russian regions. In this report we present the results of a study in Khabarovsk Krai in the Russian Far East (see map on p. 3).

Historically, Khabarovsk² has been one of Russia’s most important forest regions. Therefore, what happens within the forest sector in this region will presumably mirror a broader set of problems and possibilities related to the current state of economic transition. Khabarovsk has been selected as one among a number of case studies, the common goal of which is to provide knowledge and insights based on regional experiences that may be useful for policy making ultimately aimed at an institutional restructuring of the Russian forest sector. The knowledge and analyses that these case studies contribute may constitute an intellectual foundation for a series of policy exercises (Duinker, 1997) with federal, regional and other stakeholders in the Russian forest sector. In this way, the result of the research will hopefully make an impact on the development of a modern Russian forest policy.

The Structure of the Report

The report consists of seven chapters structured in the following way. In the next section of this introductory chapter the logic and methodology of the study are outlined. In the second chapter we will depict the social and economic role of the forest sector in Khabarovsk Krai. Since plenty of good information can be acquired by consulting the results of a number of studies specifically conducted for analyzing the Russian forest resources³ the description here is rather broad and sketchy.

² Throughout the report we will use “Khabarovsk” as shorthand for the region of Khabarovsk, “Khabarovsk Krai”. This complies with the name convention used in our earlier reports. The capital of Khabarovsk Krai is always referred to as the “City of Khabarovsk” or “Khabarovsk City”.

³ See, e.g. Backman (1998), Nilsson and Shvidenko (1997); Pisarenko and Strakhov (1996); Shvidenko and Nilsson (1997); World Bank (1997). See also the IIASA Forest database description at URL: <http://www.iiasa.ac.at/Research/FOR/dbdoc/>

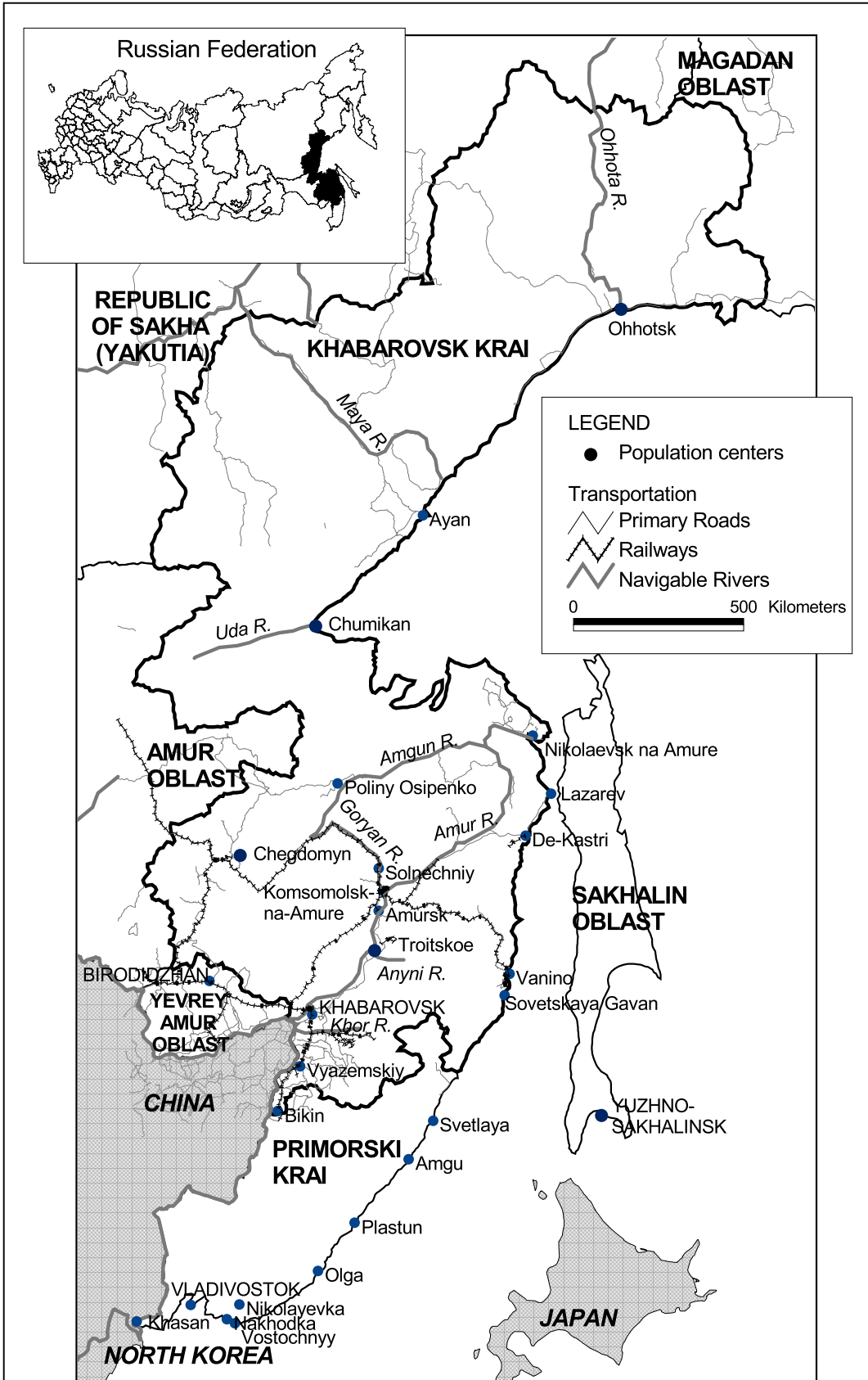


Figure 1 Transportation network in Khabarovsk Krai.
 (Data sources: Oblast boundary from IIASA Russian Forest Study Database,
 all other data from the Digital Chart of the World, Environmental Systems Research Institute Inc. (ESRI).

In the third chapter, the structure of the forest sector is analyzed. Here the main objective is to give a description of the numbers and activities of the forest enterprises, thus giving the current “status” of the sector.

In the fourth chapter we discuss a number of features related to the development of a regional forest legislation. Special emphasis is put on how the regional rules might comply with those of the Russian Federation.

The fifth chapter lists and discusses a number of problems that we found during the course of the study and can be regarded as obstacles for a successful modification of the forest sector. The basic principles for identifying and evaluating whether or not a feature is to be regarded as a “problem” or an “obstacle” are described more thoroughly in the subsequent methodology section of the present chapter. It turns out that some of the problems within the Khabarovsk forest sector are due to specific regional ways of handling things while others might be attributed to a more general set of problems related to the present transition period.

Chapter six basically contains the result of the survey made among the forest firms of the Krai. The chapter depicts how the enterprises assess and regard their own situation, their ability to operate, perceived obstacles, etc. The final chapter of the report, chapter seven, contains our conclusions and recommendations.

To achieve an ordered and carefully considered transformation of the old Soviet system is a tremendous task forcing the Russian people to simultaneously grapple with three problems: 1) economic restructuring, 2) state-building, and finally 3) nation-building, i.e., to establish Russia as a nation (Breslauer, 1995).⁴ For example, at the time of writing (Oct. 1999) the nation building problem demonstrates its significance in Dagestan and Chechnya, which has been the scene of almost daily fighting for the past month, the president has once again appointed a new prime minister, and the economic situation seems worse than ever. The three tasks are, indeed, intertwined with regional problems. However, the present report primarily deals with the regional forest sector, not with the general question of restructuring the entire society.

The point of departure for the discussion in the final chapter is that changing the forest sector is basically a matter for the Russians themselves to handle and our aim is by no means to provide readymade solutions to the great number of problems that currently beset the sector. Nevertheless, the report is aimed at contributing results and arguments useful for a wide circle of stakeholders within the Russian forest sector, and especially for those who are particularly interested in the future of the sector in Khabarovsk Krai.

⁴ The concept of “nation” seems to have an ethnic connotation in Russian. Here, we use the term in the sense reflected in the following citation from the *International Encyclopedia of the Social Sciences* (edited by David L. Sills and published in 1972 by The Macmillan Company and The Free Press, New York, the following citation is from Vol. 11, p. 7): “In prevailing usage in English and other languages, a ‘nation’ is either synonymous with a state or its inhabitants, or else it denotes a human group bound together by common solidarity — a group whose members place loyalty to the group as a whole over any conflicting loyalties. This latter definition was first proposed by John Stuart Mill ...”.

Methodology

Studying institutional aspects of the Russian forest sector requires a methodology suitable for investigating the sets of rules that govern the actors involved. In the case of Khabarovsk, a basic question to be addressed is what types of rules and norms do *actually* guide the activities in the regional forest sector. Thus, the question is not how these actors *supposedly* behave (or should behave) according to some *formal* regulation, such as the Russian forest code.

When designing our case studies we have taken the *Institutional Analysis and Development Framework* (IAD) as a point of departure. The IAD framework is a thoroughly tested tool for institutional analysis (Sabatier, 1991; Oakerson, 1992; Thomson, 1992; Bogason, 1994; Ostrom *et al.*, 1994; Ostrom, 1995; Imperial, 1999). This framework is sufficiently broad to be compatible with a wide range of theories, such as, collective action theory, transaction cost theory, game theory, and constitutional choice theory. The framework is described in detail elsewhere and will only be briefly outlined here with special emphasis on how we use it as an analytical tool. (For a comparison with other frameworks, see Sabatier 1991 and Sproule-Jones 1993.)

The focal point of the IAD framework is a specific *action arena* (cf. Figure 1:1), in this case the Khabarovsk forest sector.

Action arenas are supposedly composed of two clusters of variables: 1) an *action situation* involving participants, positions, actions, information, etc., and 2) *actors*, who have preferences, information-processing capabilities, and so forth (Ostrom, *et al.*, 1994:29 ff.).

The IAD framework seeks to understand action arenas with reference to three “factors”: *attributes of the physical world*, *attributes of community*, and *rules-in-use*. All together, this constitutes a complex set of relations that can be observed as patterns of interaction. Thus, it can be assumed that physical attributes, such as the structure and amount of forests in the region, affect the forest sector — our action arena — in particular ways. Similarly, a number of attributes of the Khabarovsk “community” (the second box in the framework), such as people’s level of education, their skills, habits, and norms, will affect activities performed within the sector.

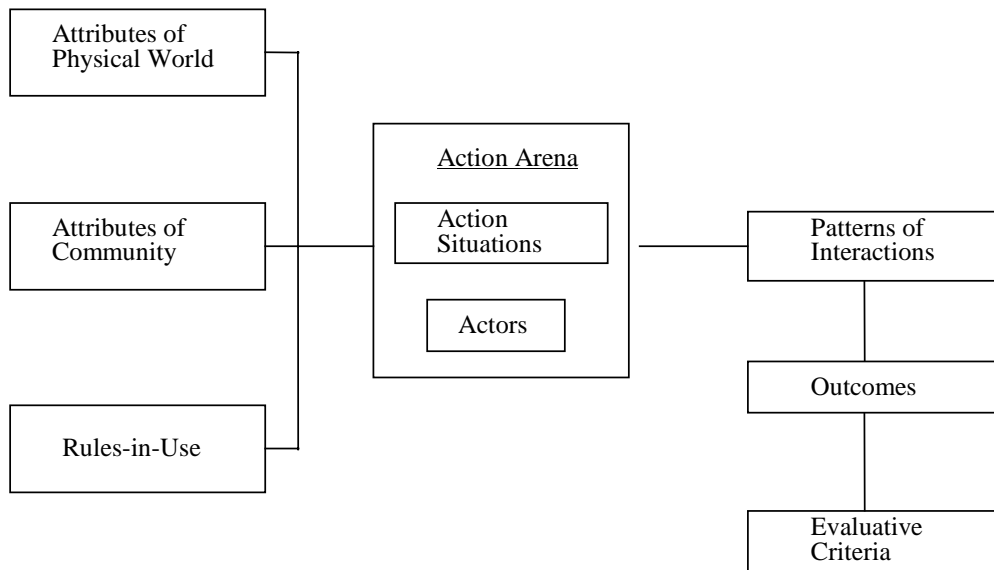


Figure 1:1. A framework for institutional analysis. (Source: Ostrom *et al.*, 1994:37)

In this way the IAD framework enables us to capture both social and political order, i.e., to reveal *how* and *why* various actors organize their relations to the forest sector in the way that they do. All together, these activities generate specific *outcomes*, and by applying a number of evaluative criteria, such as economic efficiency, fiscal equivalence and equity, these outcomes can be assessed. In this study of the Khabarovsk forest sector a set of rather general criteria is applied.

The arguments for this choice are the following. One should not expect that the Russian forest sector can — or ought to — be changed in accordance with any blueprint provided, for instance, by the forest sector in various western countries. Nevertheless, assessing whether the development is for the “better” or the “worse” will require some evaluation criteria. Since it would be presumptuous to judge Russia simply by comparing it to the situation in western countries the evaluation criteria that are applied in this study are more of a “baseline principles” type. Thus, we assume that a specific institutional configuration is conducive to a sustainable Russian forest sector and useful for the whole economy if the following conditions are met:

- Constitutional rules are acknowledged and transparent.
- The structure of property rights is settled and well defined, i.e., private actors can acquire property or get the right to utilize property for their own benefit.
- Rules and regulations from official authorities are regarded as legitimate and apply equally to similar actors.
- The market decides the prices of property and goods.
- Decision-making regarding collective choice and operational rules is decentralized.
- Private investors can realize the returns on their investments.
- Rules are enacted aimed at preventing the devastation of natural resources.
- Legitimate authorities take measures against violations of rules.

However, it is unlikely that unambiguous statements can be made whether or not individual conditions are really met. Using them for assessing the institutions embedding the forest sector of Khabarovsk is more a matter of discretion. Thus, in this report the listed criteria are looked upon as devices that indicate how close to an ideal the forest sector has developed.

Data Collection

The guiding principle for the collection of data has been the idea of “tracing the timber from the forest to the market.” For every link in this “forest-to-market chain” we concentrate on the various kinds of institutional features that affect the actors involved. The bulk of data that has been collected can be divided into four types:

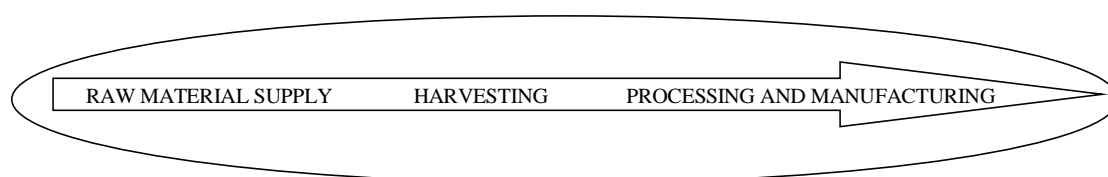


Figure 1:2. The action arena of the Khabarovsk forest sector, the focus of the study.

I) The first kind of information concerns the socio-economic situation of the Khabarovsk Krai, its economic geography as well as the formal political, administrative structure that relates to the forest sector. Here the IIASA database⁵ as well as a number of secondary sources have been used.

II) The second type of information consists of forest data. Likewise, for the gathering of this type of data, a number of secondary sources have been consulted. The data has been supplemented with information from the IIASA database.

III) The third type of data is supposed to depict the formal as well as informal institutional configuration of the Khabarovsk forest sector. Here information has been gathered during field visits and with the help of local collaborators who have collected information according to a specific instruction developed in the project.

IV) Finally, interviews have been conducted with management representatives of 25 enterprises in the Khabarovsk region. Since the forest sector consists of many sub-sectors and branches the selection of the enterprises has been guided by the idea that the total series of interviews should reflect different aspects of the sector. Thus, the interviewed enterprises are selected in order to cover the whole “forest-to-market chain” (cf. Figure 1:2). We have also deliberately incorporated both small and large companies, new enterprises as well as old, consultants as well as processing enterprises, and so forth. Accordingly, conclusions solely based on these interviews can only be generalized to the interviewed enterprises themselves. However, by adding this information to the broader set of data described above, we assume the result of our analysis to be relevant for the forest sector as a whole.

⁵ See description of IIASA’s Siberian forestry databases published on internet at URL: <http://www.iiasa.ac.at/Research/FOR/dbdoc/>

We now turn to report the results of our study of the Khabarovsk forest sector. Here we will consult and “unpack” the analytical framework described above. In the next chapter, we will describe some of the “physical attributes” of Khabarovsk Krai and, in particular, its forest resources.

2. The Role of the Forest Sector in Khabarovsk Krai

The forest sector of the Khabarovsk Krai is regarded as a sector of specialization.⁶ Together with fishing and mining it plays a central role of what makes up the basis of the natural resources complex of the Russian Far East (RFE) economy. However, mining has become the dominant of the three and its role in the economy significantly affects the current economic crisis.

Khabarovsk is one of the most important forest areas in Russia and its role in the structure of the federal forest sector is to a great extent based on timber exports. Late in the 1980s and up to 1991 the Khabarovsk forest sector contributed 12–13 percent of the regional industrial output and employed up to 15 percent of the regional workforce (Minakir and Freeze, 1994). However, the economic crisis in the 1990s has made a stronger impact on the forest sector than on other sectors of the economy and the recession went faster. This led to a continuous decrease of the forest sector in the regional economy (see Table 2:1). Signs of the coming economic recession were visible already in the second half of the 1980s.

Table 2:1. Relative output volume of the forest industrial sector 1991–1997. Percent.

Territory	1991	1995	1996	1997
Khabarovsk Krai	11.7*	10.4	5.6	7.3
Russian Far East	9.2	5.4	4.6	3.5
Russia	5.6	5.2	4.0	...

* Including Yevreiskaya (Jewish) autonomous oblast.

Sources: Goskomstat, 1991; Goskomstat, 1998.

Sheingauz *et al.* (1996) have argued that during the transition period the forest sector in Russia has not attracted much interest from the central powers of the Federation. The old central organs of state management have almost been entirely abolished. Before the transition, a number of federal decisions on forest issues resulted in a large flow of commands aimed at regulating the sector. Today, the main topics discussed in central financial and economic newspapers and journals concern the creation of an efficient banking system and stock markets as well as oil and mineral extraction. The problems of the forest sector have attracted much less attention.

⁶ According to a classification nomenclature inherited from the Soviet Union, a specialized industrial branch is one in which the production output exceeds the production demand in the territory within which it operates. This way of defining specialization does not comply with how the concept is used in western capitalist countries. The Russian concept rather reflects the idea of a regional division of labor.

The forest sector in Khabarovsk Krai not only plays an important economic but also a social role. In many parts of the region the sector is the principal employer and, as such, it is decisive for entire municipalities and villages. This is the reason why both the *Krai* and *raion* administrations pay serious attention to the situation in the forest sector. With its products and services the forest sector provides valuable inputs for many other branches in the regional economy and especially for the construction and transport sectors. The forest sector also contributes considerably to regional exports. The importance of the forest sector is also manifested in the interest it is attracting from the World Bank, the US development aid authorities (USAID), the World Wildlife Foundation (WWF), etc. Several foreign firms have also established joint ventures with regional companies to do forest harvesting and processing.

Table 2:1 shows that the relative size (in terms of output volume) of the forest industrial sector in Khabarovsk Krai has decreased between 1991 and 1997 from close to 12 to almost 7 percent of total industrial output. For the Russian Federation the share of forest industrial output was always considerably lower. While the decrease has not been as severe in Khabarovsk as it has been in Russia as a whole, the economic crisis in the region has had a relatively more adverse impact on the forest sector than on other sectors of the economy compared to the Russian Federation. The winning sectors in the current crisis are the energy and transport sectors, while the forest industry, machine-building, and agriculture are the “losers”.

However, within the Russian Far East region the forest sector of Khabarovsk Krai has strengthened its position, mainly indicating that the situation might be even worse in other parts (Table 2:2). The forest sector production of the Russian Far East is rather concentrated to Khabarovsk Krai where, in 1997, 40 percent of all forest production in the region originated.

Table 2:2. Forest industrial production volume in Khabarovsk Krai in relation to the Russian Far East. Percent.

Territory	1990	1995	1996	1997
Khabarovsk Krai	32.4*	31.1	34.0	40.3
Russian Far East	100	100	100	100

* including Yevreiskaya autonomous oblast.

Source: Department of the Far East Representative of RF Ministry of the Economy. Unpublished data.

The State Management Structure of the Forest Sector in Khabarovsk Krai

The organizational structure of the forest management system was elaborated after World War II and until the current period of economic reforms it had a rather clear and relatively simple structure. The institutional history of the Soviet/Russian system has been described earlier in many publications (see, e.g., Nove, 1977; Blandon, 1983; Barr and Braden, 1988; Sheingauz *et al.*, 1995; World Bank, 1997). The state management system remains virtually the same but as a result of the recent reforms it has become increasingly complicated. “Horizontally” it is divided into a legislative, a common executive and an administrative structure (cf. Figure 2:1). In a juridical sense these three

verticals cover all political-administrative levels of the Russian Federation although the scope of influence evidently varies. Each vertical is territorially organized, corresponding structures appear at the Federal level, at the regional (*oblast'*, *krai*, etc.) level, as well as at the municipal level. However, the structure illustrated in Figure 2:1 does not fully reflect the complexity of all forest sector management relations in the Krai. This will be discussed later.

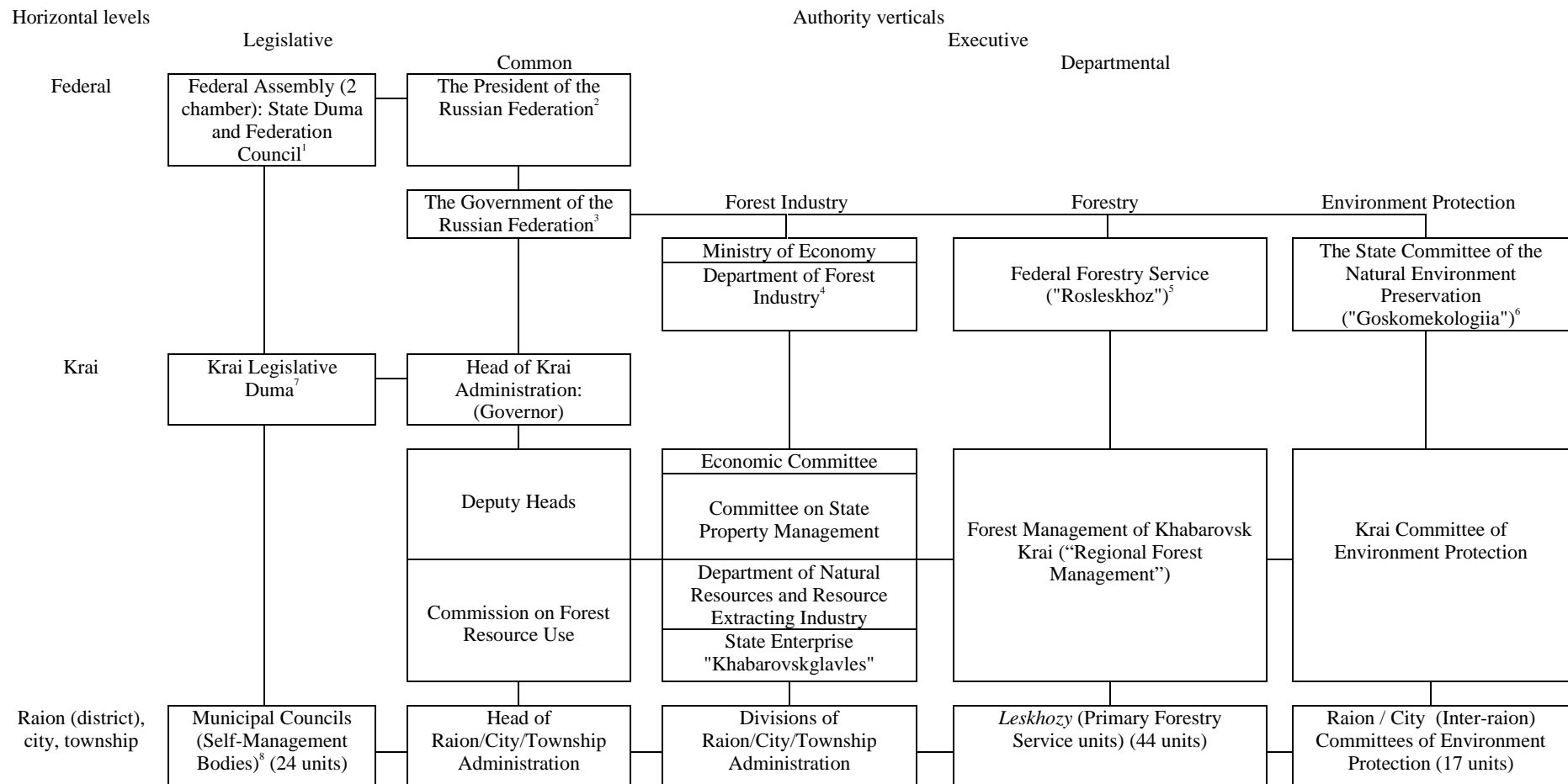
The management of forest use within Khabarovsk Krai is decided by two administrative structures, the Krai Administration (“the gubernator vertical”) and the regional unit of the Federal Forest Service (*Rosleskhoz*). The *Forest Management of Khabarovsk Krai* is submitted not only to *Rosleskhoz* but also to the Krai Administration. This principle of “dual subordination” (Nove, 1977:20 ff.) is inherited from Soviet times when forest management in the region was subordinated both to the Ministry of Forestry of the RSFSR and to the Khabarovsk Krai Executive Council. This double submission is preserved and has also been consolidated in the Forest Code of Khabarovsk Krai. The duality has become even more complicated by a permanent increase and diversification of the managing staff of the regional administration.

In 1992, when the Executive Committee was replaced, management of the forest sector became the responsibility of the Committee of Economics in the Krai Administration. Later the Directorate of Natural Resources and Resource Extracting Industries (subsequently converted into a Department) was separated from this Committee. The Directorate, now a department, takes part in the implementation of the long-term leasing decisions made by the Forest Use Commission (cf. below). The main organization responsible for the implementation of leasing decisions is, however, the *leskhoz*, whose director actually signs leasing agreements.

In 1992, the *Commission on Forest Resource Use* was also created (one of the first in Russia) representing administration and industry interests.⁷ Today, it has the use of all regional forest resources under its authority. The activities of this commission were regulated by a special regional law (currently it is regulated through the Krai Forest Code). The Head of the Commission is the First Vice-Governor on Economy.

In a subsequent change of the regional administration the *Directorate of Forest and Wood Processing Industry* was established. In addition to this directorate the *Committee on State Property Management* of the Krai administration has become more actively involved in the forest sector.

⁷ Article 59 of the Khabarovsk Forest Code stipulates: “1. The Krai Commission on Forest Use is established attached to the Head of the Krai Administration for decision making in the sphere of forest use management. 2. The responsibilities and personnel of the Commission are determined by a decision of the Head of the Krai Administration.”



¹ In the event of a gap in the “web of laws” the President of the Russian Federation can issue a decree that is in force of law until this problem has been elaborated by the State Duma in the form of an act of law.

² He does not often deal with forest and other natural resources. His last important decisions were made in early 1997 concerning the Federal Forest Code and in April 1996 concerning the Transition of the Russian Federation to a Sustainable Development (cf. Kontsepsiia, 1996).

³ It has four kinds of sub-units: 1) Ministry, 2) State Committee, 3) Committee, 4) Service and Agency.

⁴ 3rd rank.

⁵ 4th rank. It has full competence and responsibility relative to forest resources.

⁶ 2nd rank. Concerning forest resources it only controls use and participates in the adoption of AAC.

⁷ The Krai Duma can work out any law, but it should agree with federal laws. In some cases the governor’s decrees have the power of law.

⁸ They can establish local regulations in full accordance with Federal and Krai laws.

Figure 2:1. The organizational structure of the Khabarovsk forest management.

In February 1999, the *Directorate of Forest and Wood Processing Industry* was closed down and instead a new division, the *Division of Forest Industry*, was established within the Department of Natural Resources and Resource Extracting Industry. At the same time, a new structure, the State Enterprise *Khabarovskglavles* was established. The new company belongs to the Krai Administration. Some of the Administration's management functions relating to the forest industry are delegated to the new enterprise.⁸

In the late in 1980s and early in 1990, the system of environmental control began to get involved into managing forest use. However, when this system started to lose power on the federal level (i.e., the Ministry of Environment was "competing" with the State Committee on Ecology, the latter losing its power) a similar process occurred on the regional level. Today, the *Krai Committee on Nature Preservation* and its municipal (raion) subdivisions perform the function of nature protection control. It also examines regional projects, such as the establishment of new forest industries. The last function is regarded as the most effective of the tasks that the committee has to handle.

To summarize, the direct regulation of forest use on the Krai level is executed by the following organizations:

1. *The Commission on Forest Resource Use*, headed by the First Vice-Governor. The commission considers applications for utilizing forest resources and decides about lease tenders. The commission has the authority to cancel lease agreements.
2. *The Krai Administration Committee on the Economy*, headed by one of the Vice-Governors. This unit compiles the Krai budget including allocation of resources for forest use and forests regeneration. It governs the most important economic projects related to the forest sector. For example, it has implemented all of the activities related to the World Bank pilot project.⁹ The chairman of the committee is a permanent representative of the administration in the Krai Legislative Duma, which deals with all legislative initiatives relating to the forest sector.
3. *The Committee on State Property Management*, headed by one of the Vice-Governors. This committee organizes open auctions/tenders for forest lease rights. It is also the official trust holder of all packages and units of (forest) stocks belonging to the state.
4. *The Department of Natural Resources and Resource Extracting Industry*. The head of the department is a Deputy Chairman of the Krai Commission on Forest Resource Use. The department is responsible for the implementation of general state strategies related to the use of nature in the region. Among other things it studies normative-legal aspects

⁸ *Kabarovskglavles* was so recently established that it is too early to assess its actual position and importance for the Khabarovsk forest sector. In fact, it seems that the company has usurped much of the power and functions earlier resting with the Directorate of Forest and Wood Processing Industry.

⁹ Negotiations about the Sustainable Forestry Pilot Project is now being finalized and it is expected that the project will be launched in December 1999. It will be based on World Bank loans for three Pilot Regions in Russia, one of them being Khabarovsk Krai. The loan for Khabarovsk Krai will be about USD 25 million. The project will consist of two components. Component A will cover forestry problems (information systems, management, fire control, reforestation) and will be repaid from the Federal budget. Component B will cover forest industry and non-timber forest resource use and will be repaid from the Krai budget. The Project will run for about 15 years (the exact conditions are currently being negotiated).

of nature use. *The Division of Licensing*, which belongs to this department, deals with the licensing of nature use, including forest use. *The Division of Forest Industry* deals with forest industry management.

5. *The State Enterprise “Khabarovskglavles.”* This enterprise is responsible for the implementation of state policies in relation to wood harvesting and processing, the industrial potential of the Krai forest sector development, as well as the formulation of proposals on regional strategy of forest sector development, implementation of new methods, technologies and machinery.

6. *The Forest Management of Khabarovsk Krai.* The Head of the organization is the deputy chairman of the *Krai Commission on Forest Resource Use*. The Chief Forester of the organization is a member of the Commission and the Head of the Forestry Division of the organization is the secretary to the Commission.

The Forest Management is a specially authorized state organ subordinated to *Rosleskhoz*, the Russian Federal Forest Service, for the management, use, protection, stewardship and regeneration of all natural resources on forest lands (*lesnoi fond*) of Khabarovsk Krai. It is responsible for and deals with:

- the rational use of forest lands, the protection, stewardship and regeneration of forests on lands that have been transferred to its economic authority (*lesnoi fond*); and
- the management and control of use, protection, stewardship and regeneration of the forests all over the territory of Khabarovsk Krai.

The organization encompasses both regional and federal interests in regulating forest use, including protection, guarding and regeneration of the forests. It implements its activities via the *leskhoz*y and other units within its jurisdiction (Figure 2.2).

The Federal Forest Service

The activities of the Khabarovsk Forest Management is based on its primary units, the *leskhoz*y. *Leskhoz*y were, and still are, the lowest independent organizations (juridical persons) in the Russian forest management system. The structure of the Forest Service in Khabarovsk includes 44 *leskhoz*y and among them are the Genetic Center, Nanai Experimental Leskhoz, Vyazemskiy Leskhoz-College. The average area of one *leskhoz* is 1.6 million hectares and without taking into account the area of the three largest *leskhoz*y — the Ayanskiy (with 15.9 million ha), the Chumikanskiy (with 9.4 million ha) and the Okhotskiy (15.8 million ha) — the average area of a *leskhoz* is 775,000 ha.

*Leskhoz*y are the state management units for the vast majority of the forest lands. They are responsible for the use, protection, monitoring, and regeneration of forests in the areas entrusted to them by the regional Forest Management and the Khabarovsk Krai administration.

They perform the following main functions:

- accounting of growing stock;
- setting up agreements for lease and the assigning of Forestry Service lands for short term use in accordance with decisions made by the Krai Commission on Forest Resource Use;

- allocating felling areas as well as areas for other types of forest use; and
- annual allotting of felling sites and issuing of logging tickets, orders, etc.

Each *leskhoz* is subdivided into a number of *lesnichestva*. They are the smallest administrative units for forest management, responsible for:

- inventories as well as updating current changes in the records of the forest inventories;
- the execution of forestry operations, i.e., forest regeneration and other activities;
- prevention and control of forest fires, damages and poaching;
- protection of the forests from pests and diseases; and
- examination of logging sites and areas set aside for other types of forest use.

The *leskhoz*y in Khabarovsk contain 157 *lesnichestva*. The average area of one *lesnichestvo* is 457,700 ha. In December 1998, 2,800 people were employed by the Khabarovsk Forest Management.

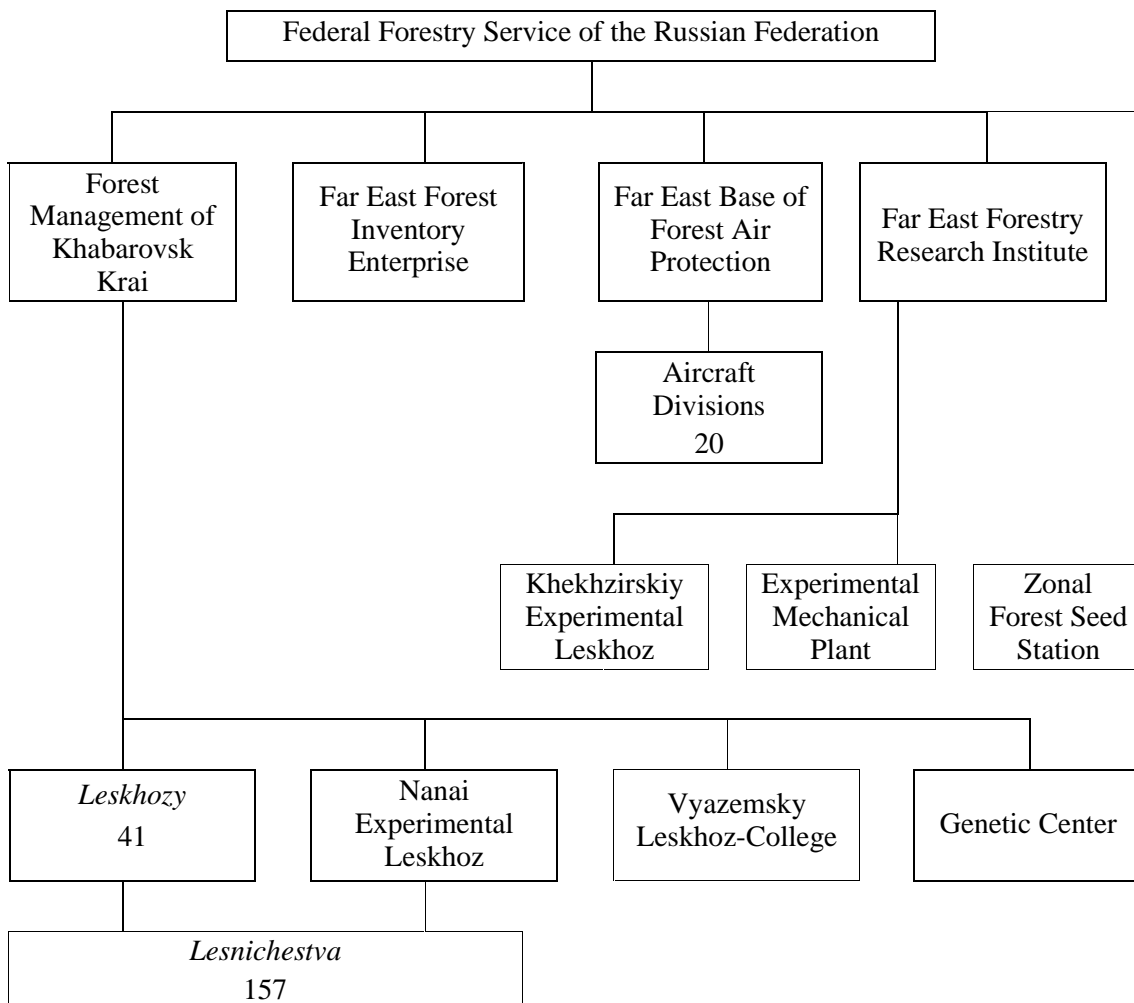


Figure 2:2. The structure of the Federal Forestry Service in Khabarovsk Krai.

One important function of the Russian Federal Forest Service in Khabarovsk Krai is the *Far East Base of Forest Air Protection*. It is directly submitted to the *Central Base of Forest Air Protection*. The goal of the Far East Forest Air Base is to prevent, detect and control forest fires as well as mass outbreaks of forest pests. Its activity includes aircraft patrolling of forest territories for early detection of forest fires. It also conducts forest fire control with smokejumpers and rappel teams as well as airborne surveys of forest diseases and the sanitary condition of forests. To meet these goals forest aviation fire stations and mechanized units are organized on the serviced territory. The Far East Forest Air Base in Khabarovsk Krai includes 22 mechanized units.

The Federal Forestry Service (*Rosleskhoz*) also includes the *Far East Forest Inventory Unit (lesoustroistvo)*. It is a zonal unit covering the whole Russian Far East and submitted directly to *Rosleskhoz* but its headquarters and main activities are located in Khabarovsk Krai. Hence, its forces are broadly involved to meet regional goals related to the forest sector. For example, its chief engineer is a member of the Krai Commission on Forest Resource Use. The main responsibility of the enterprise is, however, forest inventories and other types of forest surveys. The unit also develops plans for the organization of forestry on the territory of *leskhoz*y.

Although the *Far East Forestry Research Institute* is also directly submitted to *Rosleskhoz* it works for the whole Russian Far East area. The Institute itself and its two important subdivisions are located in the City of Khabarovsk. The Director of the Institute is a member of the Krai Commission on Forest Resource Use. The Institute carries out and coordinates scientific research on practically the whole spectrum of issues related to the condition and dynamics of forests as well as the forestry activities in them, such as the development of recommendations and normative-legal acts for the entire Russian Far East.

3. The Structure of the Forest Sector in Khabarovsk Krai

The structure of the forest sector in Khabarovsk Krai is rather typical for Russia. The most developed branch is the wood harvesting industry, which is engaged in the extraction of the economically most valuable resources, almost always to the detriment of the forests. This strategy, clear and understandable for the wood harvesting industry, obviously contradicts the long-term goals of the sector, ecological demands, and the strive for a sustainable development of Russia. In recent years, the sector has been submitted to a profound structural change which has significantly affected the forest enterprises and their relation to the legal structure and the previous management system.

Before the transition period, the wood harvesting industry consisted of state *lespromkhoz*y joined together under the umbrella of “Dallesprom”, which was submitted to the *Ministry of Forest Industry of the USSR*. The *lespromkhoz*y belonging to “Dallesprom” contributed up to 80 percent of all the timber that was harvested in Russia’s Far East region. By that time the number of *lespromkhoz*y did not exceed 40. After the liquidation of the Ministry of Forest Industry of the USSR in September 1991, “Dallesprom” was reorganized into a joint stock company. The forest harvesting and wood-processing enterprises which had formed “Dallesprom” now became the founders of the company AO “Dallesprom”. With the new conditions emerging as a consequence of the price liberalization, the company became involved in coordinating deliveries of

forest products in accordance with mutual obligations between stockholders, providing timely payments as well as material and technical services to the *lespromkhozy*.

In 1992, the rapid process of mass privatization of state enterprises commenced.¹⁰ The process also included *lespromkhozy*. The owners of AO “Dallesprom” now became stockholders in a number of companies, in which 15–51 percent of the shares were acquired by “Dallesprom”. The greater portion of the shares was transferred to the Committee on State Property Management of Khabarovsk Krai.

The first stage of the privatization program (1992–1994) resulted in a significant change in most sectors of society, both quantitatively and qualitatively. Thus, the institutional structure of the forest industrial complex in Khabarovsk Krai also changed significantly. During these first years of the transition most forest enterprises in the region were converted into stock companies.

As of 1995, a redistribution of shares has been going on affecting a majority of the stockholding companies of the forest sector both through direct take-overs and through the trade of shares in secondary markets. In some cases enterprises were reverted into state property again via court decisions. The Bikinskiy sawmill is one example.

In 1997, and especially in 1998–99, another method of equity redistribution appeared: the Krai authorities started to accept shares in order to set off enterprises’ debts to the budget and hence State ownership increased again and the State’s influence on companies grew. This development is in line with the development of the forest sector in other parts of Russia (cf. Carlsson and Olsson, 1998; Carlsson *et al.*, 1999).

However, during the course of the transition the number of new enterprises has increased. The increase was especially apparent between 1992 and 1993 (the stage of mass privatization) but after this period the rate of new enterprise formation seems to have decreased permanently. Table 3:1 illustrates the growth of the number of enterprises in the forest sector. It should be remembered, however, that many more enterprises are established than is shown in the table — many are also liquidated.

Table 3:1. Number of forest enterprises in Khabarovsk Krai.

	1991	1992	1993	1994	1995	1996	1997
Number of enterprises	40*	98	260	350	400	420	432
Index to previous year	100	245	265	135	114	105	103

* only enterprises belonging to the Ministry of Forest Industry of the USSR.

Source: Directorate of Forest and Wood Processing Industry, Khabarovsk Krai Administration, 1998. Unpublished data.

As can be seen in Table. 3:1, there are currently more than 400 forest enterprises in the region, i.e., firms given the right to engage in wood harvesting activities.

¹⁰ The privatization period is described in more detail in Sheingauz *et al.* (1996:16–17).

Almost all former forest enterprises have been converted into joint stock companies. However, some portion of the shares (quite often a control package) still belongs to the State. But, in practice, they function as private non-governmental firms. Most of them stopped their production activity transferring it to smaller “daughter” companies, which have emerged in great numbers.¹¹ New forest enterprises are constantly being established, both in corporate and private ownership. As a result, already in 1995, enterprises of private and mixed forms of ownership contributed 87 percent of the commercial output of the forest sector in Khabarovsk Krai. In 1998, 98 percent of total forest sector output was provided by the private sector (RFE Forest State Account, 1998).

Table 3:2. Number of independent enterprises and production amalgamations in the Khabarovsk Krai forest sector.

	1995	1996	1997
Number of enterprises	256	354	346
in % of the total number of commercial units in the region	19.2	25.6	24.2

Source: Goskomstat Khabarovsk (1998a).

Table 3:3. Small enterprises, production and employment (including subsidiaries) in the Khabarovsk Krai forest sector.

	1995	1996	1997
Number of small* forest enterprises	173	275	278
in % of the total number of small enterprises	16.7	24.9	24.2
Production volume:			
in prices of 1998, million rubles	72.4	240.9	411.1
in % of the total for all small enterprises	17.6	36.8	48.3
Employees, persons	2 477	6 089	6 410
in % of the total for all small enterprises	21.3	31.9	34.8

* In Russian statistics small enterprises have up to 50 employees.

Source: Goskomstat Khabarovsk (1998a).

Employment in the Khabarovsk forest sector enterprises increased faster than the average for the regional economy (Tables 3:2 and 3:3).¹² Thus, almost 25 percent of all

¹¹ By establishing new “daughter companies” these older and often unprofitable enterprises have found a way to avoid being overburdened by debts, instead transferring their production facilities to the new companies thereby getting a fresh start in business and the possibility of becoming profitable.

¹² It should be noted that the data on the total number of forest sector enterprises in Khabarovsk Krai given in Tables 3:1 and 3:4 are more recent than the numbers given in Tables 3:2 and 3:3. They are also the most comprehensive. Data on the total number of enterprises given in Tables 3:2 and 3:3 do not incorporate all forest enterprises in the region. Thus, for instance, very small enterprises are omitted, especially enterprises which are only registered at the regional (*raion*) level. Furthermore, the data in Table 3:3 includes only small enterprises.

small enterprises in the Khabarovsk Krai belong to the forest sector and these firms contribute almost half of the production value of all small enterprises in the region. Between 1995 and 1997 the small forest enterprises increased their number, production and employment relatively faster than corresponding enterprises in other sectors of the economy.

The most common legal forms of enterprise in wood harvesting are so-called “partnerships” (*TOO*) and “associations” (*OOO*) with limited liability (27.8%) and joint stock companies (26.4%) of open and closed type (cf. Table 3.4). The majority of the newly established enterprises have relatively insignificant production facilities intended for small production volumes. Almost half (47%) of the enterprises have production capacities enabling them to harvest up to 5,000 m³ of wood annually, 24 percent of these enterprises can harvest up to 20,000 m³, 16 percent up to 50,000, 7 percent up to 100,000 and only 6 percent of these firms can harvest more than 100,000 m³ of wood annually (RFE State Forest Account, 1998).

Table 3:4. Distribution of wood harvesting enterprises according their legal form in Khabarovsk Krai.

Raion	Stock companies		Partnerships, limited <i>TOO</i>	Associations, limited <i>OOO</i>	Individual private enterprises <i>IchP</i>	Small enterprises <i>MP</i>	Joint ventures <i>SP</i>	Other*	Total
	Open type <i>OAo</i>	Closed type <i>ZAO</i>							
Lazo	17	1	25	6	7	5	1	17	79
Komsomolskiy	10	1	16	2	3	6	0	11	49
Vaninskiy	8	4	7	3	6	3	4	12	47
Ulchskiy	12	1	6	1	4	7	0	16	47
Nanaiskiy	7	3	8	4	5	4	2	8	41
Nikolaevskiy	5	2	6	1	1	2	0	19	36
Solnechny	8	3	2	3	1	7	0	5	29
Verkhnebureinskiy	8	1	2	2	4	5	1	1	24
Sovetskogavanskiy	8	4	5	2	2	0	0	2	23
Amurskiy	5	0	3	1	1	2	0	8	20
Poliny Osipenko	4	0	9	0	2	1	0	3	19
Vyazemskiy	1	1	6	0	0	1	0	9	18
Total	93	21	95	25	36	43	8	111	432
<i>Percent</i>	<i>21.5</i>	<i>4.9</i>	<i>22.0</i>	<i>5.8</i>	<i>8.3</i>	<i>10.0</i>	<i>1.9</i>	<i>25.7</i>	<i>100</i>

* Training centers, agricultural farms, municipal enterprises, gold-mining cooperatives, aboriginal communities; construction, repair and road-construction organizations.

Source: Directorate of Forest and Wood Processing Industry, Khabarovsk Krai Administration, 1998. Unpublished data.

Despite the establishment of many new forest enterprises the old firms still have a role. In 1995, the joint stock company “Daldrev” was separated from “Dallesprom”. “Daldrev” incorporated a number of wood harvesting units in the southern parts of the region. According to data for the first half of 1998, “Dallesprom” consists of 21 reorganized state harvesting enterprises, while “Daldrev” consists of 12 former state owned wood harvesting units. These enterprises, comprising 8 percent of the total number of forest firms in the region, provide 57 percent of all harvested timber.

The total share of small and private units in the Khabarovsk Krai forest sector amounts to 90 percent of the total number of enterprises. This is why it is regarded as important to regulate their activities and protect their interests. Consequently, *the Far East Association of Small, Private and Non-Governmental Forest Users* was established in 1995. This is a public organization, the aim of which is to protect and lobby the interests of small forest businesses. According to a decree issued by the Governor it is supposed to function as a coordination unit for small forest enterprises. However, it has been unable to function because of lack of funding and the prevailing complicated “socio-psychological situation” in the forest sector. The Association still exists but it does not significantly influence the activities in the forest sector.

The role of forest industrial joint ventures and foreign companies in the economy of the Khabarovsk forest sector increased appreciably between 1994 and 1997. Despite the fact that their number is low (2% of all forest enterprises) their importance with regard to the total volume of felling operations is rather significant and amounts to 9 percent (which is equal to the volume harvested by all units of AO “Daldrev” mentioned above).

However, the institutional changes in the forest sector have been accompanied by a significant decrease in production volumes (Table 3:5).

Table 3:5. Volumes of commercial production in Khabarovsk Krai forest sector.

Production	1985	1990	1995	1997	
				physical volume	% to 1990
Removed wood, 1,000 m ³	13507	11593	4564	3832	33.1
Commercial timber, 1,000 m ³	11084	9507	3453	3160	33.2
Sawn timber, 1,000 m ³	1692	1541	314	206	13.4
Chipboards, 1,000 m ³	40.5	91.2	15.0	8.9	9.8
Fiberboards, 1,000 m ²	21.3	22.2	4.9	3.0	13.5
Plywood, 1,000 m ³	10.0	6.2	-	-	0
Cellulose, 1,000 t	95.1	96.9	27.4	-	0
Cardboard, 1,000 t	120.3	155.7	5.0	3.1	2.0

* Including Yevreiskaya Autonomous Oblast.

Sources: Goskomstat Khabarovsk (1996); Goskomstat Khabarovsk (1998b).

The production volume of the so-called “base enterprises” of the forest sector decreased faster than in the industrial sector as a whole. In this situation it is quite natural that newly established forest enterprises are responsible for an increasing share of production.¹³ In the course of the prolonged economic crisis the situation has become considerably worse. As a result, the share of harvested wood relative to wood processing has changed significantly. Currently, the share of wood harvesting amounts to 85–90 percent of total production in the sector, i.e., the structure of the forest sector has become “heavier” and, as a result, it has moved almost completely to “primary production”. The general decline in the Russian Far East forest sector was noted already by Sheingauz *et al.* (1996).

However, during the last three years there has been a slower production decrease in the forest sector of Khabarovsk Krai compared with similar Russian regions. This is explained by the fact that until the middle of 1997 timber exports from Khabarovsk was still on a stable level. With the deterioration of the situation, especially in 1998, this tendency might be undermined. At the same time the devaluation of the ruble provided favorable conditions for a restoration of forest exports accounting for 50–70 percent of the current forest production (RFE Forest State Account, 1998). Time will show if this opportunity will be used.

A majority of the production and management units that appeared during the last three years have survived and the total number of forest industrial enterprises has not changed significantly. In order to improve the management of state property the Krai Administration in 1995 transferred the “control package” of its forest enterprise stocks to be managed in trust by AO “Dallesprom”. The results of this operation are not yet clear, but it seems that it has not improved the workings of the forest industrial enterprises in any obvious way. Recently, therefore, state owned stocks were again transferred to the Committee on State Property Management of Khabarovsk Krai. For the last three years the Krai authorities have tried to make their regulating role stronger relative to the forest sector and to strengthen the role of management.

The City of Khabarovsk still remains the largest forest center of the Russian Far East. In 1991–1992, in the period of export limitations, when so-called “special exporters” became the main actors, two new organizations were established. The first was the *Far East Association of Producers of Forest Products*, “Dalexportles”, joining Russian timber delivering units from Eastern Siberia and the Russian Far East in an effort to establish an export strategy. The second, AO “Dalles” (including its daughter insurance company “Dallesstrakh”) also aspired to become a “special export dealer”. However, the role of “Dalles” soon became problematic, its financial condition deteriorated. Its control package of stocks now belongs to the Committee on State Property Management of Khabarovsk Krai. The role of “Dalexportles” has also been reduced to practically zero.

As was mentioned above, the principal producers in the Khabarovsk Krai forest sector are joint stock companies mainly engaged in wood harvesting and processing. “Dallesprom” and “Daldrev” united the main enterprises of the former Ministry of Forest Industry of the USSR and equipped them with subsidiary units. However, their

¹³ We should bear in mind, however, that many of these newly established enterprises were based on existing older firms.

role has changed radically and they are no longer involved directly in production management, as was earlier the case. Currently, “Dallesprom” mostly has the functions of a holding company, regulating and coordinating other units. Along with a constant reduction of profits the financial situation of the forest enterprises is getting worse. Hence, in the middle of 1998, the administration of Khabarovsk Krai decided to restructure “Dalles”, “Dallesprom” and “Daldrev” and merge them into a common financial-industry group. However, later it was decided not to go through with this merger and “Khabarovskglavles” was instead established to extend the Administration’s management and control.

The general development and restructuring tendency of the enterprises in all branches of the forest sector indicates that they have not yet adapted to the new conditions of the economy. The majority of the so-called “base enterprises” have formed subsidiaries, disintegrating into individual shops and production units. This reduces the potential production as well as the trading of traditional types of products. A kind of “multi-stratum” structure arose in the former state enterprises, i.e., they combined ways of preserving employment and generating profits in old and inefficient production units.¹⁴ Similar to other branches of the economy privatization and auctioning in the forest sector did not lead to improved financial and economic activities in the enterprises. No unambiguously positive relations between privatization and production volumes, profitability and changed production structure can be seen.

All this relaxes the control and management of the forest industrial sector. This tendency is also further strengthened by the fact that the smallest enterprises are registered on the municipal (*raion*) level, while larger enterprises are registered at the regional (*krai*) level. In addition, quite a few firms registered outside the borders of the Russian Far East exist. In order to strengthen the current processes of state management a special department was established in the Khabarovsk Krai Administration (see Figure 2:1). However, it had no rights and instruments to interfere directly into the economic activities of the firms.

Great hopes are connected to the federal restructuring program of the forest industrial sector that was approved by the Ministry of Economy of the Russian Federation in November 1998. It was suggested that similar programs should be created in each forest region of the Federation. Such work had already been implemented in Khabarovsk Krai a year ago. The two principal aims of this restructuring are:

1. Reconstruction of the debts of the enterprises. Currently the majority of forest sector enterprises are in debt and their “creditor” most often is the local budget. For example, the greater part of *Dalles’* shares were taken over by the regional administration because the company owed money to the budget. If a debt restructuring appears to be impossible the enterprise should be declared bankrupt and the new enterprise should not be burdened by its debts but be established on its own base.
2. Wherever possible a vertical integration of enterprises should be pursued. This would allow for subsequent control of the technological processes of harvesting,

¹⁴ This is the typical behavior in what Gaddy and Ickes (1998; 1999) have termed the Russian “virtual economy”.

processing and transporting. On the other hand, it enables tax avoidance at every stage of production and thereby also a reduction of production costs.

As already mentioned above, in the spring of 1999, a new state enterprise, *Khabarovskglavles*, was established by the Krai Administration based on the staff of *Dalles*. One of the aims of *Khabarovskglavles* is to become a new “instrument” for regulating forest use in the region. For this purpose, it is expected to perform commercial functions. The idea is that most timber exports should be channeled via *Khabarovskglavles*. This way it will be able to influence prices and financial operations for the firms in the forest industry. As a first measure, in July 1999, the Krai Administration established privileged forest loans through “forest *veksels*” (*lesnoi veksel*). The loans will only be available for firms that make a trade agreement with *Khabarovskglavles*.

The situation in forest management, i.e., the duties of the Federal Forest Service, is more stable and controlled. In all regions of the Russian Far East, excluding the Chukotskiy Autonomous Okrug, forestry is conducted on 99 percent of the territory by forest management units, *leskhozy* submitted to the Federal Forest Service (*Rosleskhoz*) of Russia. Here the old structure of forest management has been preserved from Soviet times. However, the regional Forest Management is nowadays obliged to coordinate its forest management activities with the regional administrations to a greater extent than before the transition. Formally, it is necessary to comply with the main decisions of the provincial committees of the State Committee for the Protection of Nature, which has a supervisory function.

Timber Distribution¹⁵

Under the centralized system of management, all timber produced and processed by state-owned enterprises were strictly distributed to consumers. Any violation was subject to severe punishment. The remainder of the timber produced by *leskhozy*, state farms and other entities (3–4% of the total timber harvested in the region) was distributed on the basis of single and long-term (less than a year) contracts. By the middle of the 1980s, 15–20 percent of timber production was shipped to other regions of the country, about 25 percent was exported abroad (80–85% of this to Japan) and the remainder was used in the RFE. Economic reforms put an end to this strict system of timber distribution and quotas for timber exports were canceled in 1995. The current timber distribution system is unrestricted and works on the basis of free contracts, with prices negotiated between the parties.

Since 1994, timber shipments to other regions of Russia and the newly independent states (former Soviet republics) have all but ceased. Interregional markets have shrunk considerably, mostly due to low demand from the construction industry, which used to be a principal timber consumer. Export volumes have also shrunk. By the middle of 1995, 50 percent of the regionally produced timber was consumed within the region and the other 50 percent was exported. The share of shipped timber in the region’s total harvesting has increased and this means that the Russian Far East is becoming even

¹⁵ This section on timber distribution is an updated version of Sheingauz *et al.* (1996:32–37).

more of a raw material resource base. There are no exact data for 1998, but according to expert estimations, about 60–70 percent of the logged volume was delivered abroad.

The restructuring of timber consumption largely depends upon price increases due to increasing input prices. Before Perestroika the cost of timber from the Russian Far East was 66–75 percent lower than that of timber produced in East Siberia because of two factors:

- 1) proximity to sea ports for timber export; and
- 2) availability of species not found in Siberia, when shipping timber to other regions of the former USSR, including Siberia.

However, there was a “Siberian barrier” for timber from the Russian Far East that constrained delivery to other regions of the country. Now the cost of producing timber in the Russian Far East (including transport costs) makes this timber unmarketable in the west. Simultaneously, relatively inexpensive energy in Siberia, and the ensuing low cost of East Siberian timber, contributes to the competitiveness of its f.o.b. price in comparison to the f.o.b. price of timber from the Russian Far East.

In the Russian Far East, moving timber from the logging site to the consumer goes through three phases. In the first phase, temporary skid roads are used to deliver timber from a harvest site to an upper landing or loading site. Cut timber, in the form of full-length trees, with uncut branches, or lengths (topped clear-boled stems) or assortments (separate logs), are moved up to 0.5–1.2 km with the help of special equipment: tractors, cableways, multiple processing machines of LP-18 or LP-49 type that are now being replaced by forwarders and skidders. The total length of such roads is unknown.

In the second phase, at the upper landing deck (loading site), branches are cut and timber is loaded on hauling equipment: log trucks or timber carrying platforms. Some places still use narrow-gauge railroads. The timber is then transported from the loading site to a logging terminal adjacent to a main road via improved logging roads or narrow-gauge railroads. The distance can be a 100 km or more. If a harvest area is near a timber processing facility, the log yard may serve as a lower landing deck. In such cases, transportation is limited to two phases.

In the third phase at the logging terminal, logs are processed to enhance market qualities, are graded and loaded in railroad cars or onto timber barges, then delivered to consumers via main transport lines (Table 3:6).

Table 3:6. Roads in the Forest Lands (Forest Fund) of Khabarovsk Krai, 1998, kilometers.

Type of road	Forestry Roads	Forest Industry Roads	General-Purpose Roads	Total Length
Railroads:				
roads with common width of gauge	0	210	1509	1719
Subtotal — railroads	0	291	1685	1976
Car roads:				
roads with hard surface	952	2702	2229	5883
earth roads:				
all-the-year-round roads	10136	16872	6899	33907
winter roads	1648	967	8727	15757
subtotal — earth roads	13280	21130	7425	41835
Subtotal — car roads	14232	23832	9654	47718
Total — all roads	15880	32850	16721	65451

Source: State Forest Inventory of January 1, 1998: Database of the Economic Research Institute, Khabarovsk.

The principal, domestic, transportation corridors are rather limited: the Trans-Siberian railroad (*Transsib*), the Baikal-Amur railroad (*BAM*), the Amur river and its principal Ussuri tributary. There are several major automobile highways. The most prominent is the Khabarovsk–Vladivostok and the partially completed Chita–Khabarovsk–Nakhodka highway. Sea lanes are the major external transport corridors. A relatively limited number of principal arteries cut the territory into transportation corridors:

1. The Trans-Siberian railroad, including the ports in the south of Primorskiy Krai (Nakhodka, Vostochny, Posyet, Zarubino, Bolshoiy Kamen, Slavyanka) and all land passages across the state border with China and North Korea;
2. The Baikal-Amur railroad (*BAM*), including the ports of Vanino and Sovetskaya Gavan;
3. Lower Amur with its ports and port points;
4. Ports on the coast: Svetlaya, Plastun, Preobrazheniye, Olga, Amgu, Rudnaya, Pristan, De-Kastri, Mys Lazarev, port points of Sakhalin, Ust-Kamchatsk, Tiksi; and
5. Closed, internal traffic lines of Yakutiya, Kamchatka, Magadanskaya Oblast and Sakhalin.

Except for the fifth group all transport routes are used to a varying degree for the transport of timber from Khabarovsk Krai.

Transport is one of the main components of the forest sector. Logging roads provide the basis for logging operations and their construction is supposed to supersede, and has

always preceded, start up of logging operations. The majority of road construction, prior to the economic reforms, was financed from the central budget. Now enterprises finance road construction based on a “residual principle”. Due to budget deficits, the majority of *lespromkhozy* and contract construction organizations have reduced road construction teams. *Lespromkhozy* build just enough roads to transport the timber that is currently being logged. Most *lespromkhozy* have depleted the available timber reserves located close to existing logging roads. Up to 1,000 km of gravel-top roads were annually built by loggers in the Russian Far East prior to 1990; at present the figure is 75–80 percent lower.

The construction of transportation links is motivated by two main factors:

1. the timber resources in previously and currently exploited areas of the region have now been depleted; and
2. an easier access to the Russian Far East sea ports is required since transportation tariffs for both railroads and highways have increased dramatically.

Both in Primorskiy Krai and in Khabarovsk there is a growing trend to increase the use of seaports on the coast of the Sea of Japan to transport timber products traditionally moved by rail. This will mean considerably lower transportation costs for delivered timber, primarily round wood.

Several new logging and general-purpose roads are under consideration in Khabarovsk Krai. In 1998, a new car road Khabarovsk–Lidoga–Sovetskaya Gavan was opened. It is the first car road that joins Amur and the Pacific coast. The construction of the road is not completed (the road still lacks hard cover). It is expected to be fully completed during the year 2000.

Another car road is planned from the town of Sukpai (tributary in the Amur basin) to Nelma Bay on the coast of the Tartar strait (Sovetsko–Gavanskiy raion, Khabarovsk Krai). Construction has stopped due to financial constraints with no specific project plans for the future.

There are plans to go ahead with the construction of a general purpose, state-owned road between Sidima–Zolotoi–Sukpai (Khabarovskiy kraï) and to start building an automobile road between Selikhino and Yagodniy to Cape Lazarev. The construction of the Chita–Nakhodka highway will continue in Khabarovsk and Primorskiy Krai. In Primorskiy Krai, a railroad branch line is being built to Zarubino–Khanchun (China). This will be the second railway to cross the Russian Far East border to China.

If road construction, especially logging road construction, continues at its current slow pace, the Russian Far East forest sector will face considerable hardships, not only in its effort to reach previous production volumes, but also in preserving the status quo of the industry.

Sea and river ports (Table 3:7) are an important loading link, especially for exports. Their relative value has rapidly changed in the course of the current reforms. New timber ports have appeared in the last five years and there is now less concentrated cargo movement, especially export traffics. There has also been a significant increase in

the number of border-crossing land routes. For example, in Primorskiy Krai alone, four additional routes have been established across the Russian-Chinese border.

Table 3:7. Volumes and Share of Timber Shipments per Ports and Small Loading Terminals, 1997.

Ports and small loading terminals	Shipment volume, thousand m³	Share of total regional shipments, percent
Nakhodka	2058	31.0
Vanino	1398	21.1
Vladivostok	663	10.0
Plastun	435	6.6
Vostochniy	397	6.0
Loading terminals of Sakhalin	378	5.7
Nikolaevsk	341	5.1
Sovetskaya Gavan	323	4.9
De-Kastri	242	3.6
Bolshoi Kamen	98	1.5
Olga	90	1.4
Lazarev	54	0.8
Posiet	49	0.7
Svetlaya	47	0.7
Amgu	34	0.5
Ust-Kamchatsk	16	0.2
Mago	9	0.1
Tiksi	6	0.09
Petropavlovsk-Kamchatskiy	0.7	0.01
Russian Far East total	6638	100

Sources: Database of the Economic Research Institute, Khabarovsk, 1998; Joint-stock company *Dalles*, 1998 (unpublished data).

Overall, the regional timber distribution system as well as the distribution of forest resources have undergone the most sweeping changes, forming a genuine foundation for a market orientation of the Russian Far East forest industry.

Organizations of the Forest Sector in Khabarovsk Krai

The role of the forest sector is very significant in the regional economy and it is tied by multiple links to the social, environmental and economic spheres of society, not to

mention the sector's importance as an employer. Here we only concentrate on structures with a significant influence on forest management and use. These can be divided into three groups:

The first group consists of enterprises working for the forest industry. The main unit in this group is *Dallespromproekt* (the former Far Eastern branch of *Giprolestrans*, a central consultancy firm in the forest industry). This enterprise is in state ownership. Its main function is to design projects for wood harvesting enterprises. A project always includes technological descriptions as well as a plan of felling operations determining the allocation of logging sites.

In the course of privatization a number of firms belonging to this group were "broken out" of the former structures of the Ministry of Forest Industry of the USSR. These firms were engaged in the provision, sales and leasing of felling and wood processing equipment and some of them also provided consultancy services. Similarly, many new firms arose, including representations for foreign firms, such as Wood-Mizer, Timber-Jack and others. By delivering equipment and training the staff to use it, these firms brought in new technologies and exerted a significant influence on numerous sides of forest production. In this way the so-called Finnish and Scandinavian technologies of wood harvesting were introduced into the forest sector of Khabarovsk Krai, and currently experts work to introduce western American technologies.

The second group consists of scientific research institutes and educational units. This group is headed by the *Far East Forestry Research Institute* that works directly with forest use, as was already mentioned. This group also includes scientific research institutes of the Far Eastern Branch of the Russian Academy of Sciences, such as the *Institute of Water and Ecological Issues* and the *Economic Research Institute*. The *Market Institute* of the Russian Ministry of the Economy also belongs to this group. These institutes often participate in the development of normative-legal acts and programs at the krai and higher levels. To some extent, mainly through the results of their research, they exert an influence on the strategy of the region's forest use.

A similar role is played by two faculties of the Khabarovsk State Technical University. One is called the *Institute of Forest Industry* and the other is the *Department of Economics* with its special focus on the "economics of forestry and forest industry". When the University releases students of these and related specialties it creates the personnel who currently promote modern ideas of forest use and who will continue to do so in the coming decades.

The third group consists of non-governmental organizations (NGOs). The Khabarovsk branch of the *All-Russia Association of Nature Protection* has existed for a long time. But being a stillborn child of Soviet officialdom it has never been very active in the region.

Today, the most authoritative and strong among the non-governmental organizations that influence forest use is the local *Wild Animals Fund*. Its stand is a reasonably moderate ecological position without recourse to spectacular populist actions. Recently it started closer cooperation with the *World Wildlife Fund* (WWF), which wants to open its Far East regional representation in Khabarovsk. The direct goal of the WWF is to

develop a system of voluntary certification of forests and forest products in the Russian Far East.

Ecodal is a relatively new environmental NGO in Khabarovsk. It has already appeared in various actions promoting a forest management based on a combination of rational forest use with forest regeneration.

The implementation of international programs has exerted a continuous influence on the situation in the region's forest sector during the last five years. These programs include:

- The Russian-American *Russian Far East Sustainable Natural Resource Management Project* (EPT/RFE), 1994–1998, funded by USAID. Within the framework of this project two establishments for growing plug seedlings were constructed, the region's forest fire fighting system was strengthened and the Forest Code of Khabarovsk Krai was drafted.
- The Russian-Canadian *Gassinskiy Model Forest*, 1994–1998, funded by the Canadian Forest Service, within the framework of which a model forestry unit in Nanaiskiy raion was established.
- The Russian-American project *Russian Environmental Partnership*, 1998–1999, funded by USAID, providing support for small and medium sized businesses engaged in wood processing and the use of non-wood forest products in an environmentally safe way.
- The already mentioned WWF program of voluntary forest certification supported by the World Bank. This project started in 1998 and it is funded by various international organizations.
- A pilot project on sustainable forest use in the Russian Federation. This project will start in 1999 based on World Bank credits. It concerns forestry as well as forest industrial activities.

Summary

Profound changes have occurred in the Khabarovsk Krai forest sector during the transition period. To a great extent these changes are related to the overall change of the economic, political and legal conditions in Russia. As we have seen, the strict management verticals have been ruined, the system of state planning has been canceled, and the system of centralized procurement has been changed for market solutions, which in many respects works better and more straightforwardly. State enterprises were converted through auctioning and many new enterprises arose with different forms of ownership. But, even so, we cannot conclude that the restructuring has been completed, a fact that is illustrated by the current financial-economic condition affecting individual forest enterprises as well as the sector as a whole. The situation can be summarized as follows:

- The industrial complex has concentrated on the easiest accessible forest tracts and a considerable transformation of forest resources has taken place which has resulted in a significant decrease of the volume of forest resources accessible with current harvesting methods.

- The discrepancy between forest industrial and environmental concerns has increased.
- A radical change of property rights has caused new contradictions between private production and state owned forest resource management.
- The management of both forest resources and forest processing has been reorganized.
- The forest sector has been submitted to a rapid increase of production costs, primarily transport and energy costs. This has severely reduced the possibilities to compete using regional forest products. Consequently, interregional markets have decreased drastically.
- The Russian domestic market has also collapsed.
- Simultaneously, largely due to inconsequent and even chaotic policy-making concerning the regulation of forest exports, the region has lost its position on the international market.
- Artificial forest regeneration has almost entirely ceased.
- Environmental demands on the forest sector have increased.
- Finally, Khabarovsk has also been hit by the effects of the economic crisis on its foreign market, mainly in Japan and Korea.

4. The Central Features of the Federal and Regional Forest Legislation

Until 1977 there was practically no forest legislation in effect in the Soviet Union. All activities in the forest sector were based on acts of various agencies and on decrees issued by the Council of Ministers and the Central Committee of the Communist Party. After 1977, basic forest laws have been approved in the former Russian Republic (RSFSR) and the current Russian Federation on three occasions.

In 1977, the “Fundamentals of Forest Legislation of the USSR and Union Republics” were adopted (Osnovy, 1977). In 1978, these “fundamentals” were improved and specified in the “Forest Code of the RSFSR.” These laws completely conformed to the ideology and the specific order of the planned centralized economy of the time. Their characteristic feature was the lack of an implementation mechanism. But, in contrast to subsequent federal laws, they tried to take region specific features into account through special clauses on cedar (*Pinus koraiensis*) and mountainous forests.

Under the new conditions of transition, these laws turned out to be completely useless and in 1991–1993 local forest laws were being drafted in an intensive activity among various Subjects of the Federation. Being a region for which the forest sector is of great importance, Khabarovsk Krai was one of the pioneers in this process, which was entirely new for the former USSR.

Many and diverse regional normative acts were adopted during these years. Undoubtedly the most important was the “Regulation on Forest Use on the Territory of

Khabarovsk Krai” (Polozhenie, 1992a). It included a number of features which were principally new to Russian forest legislation. So, for instance, it declared Krai sovereignty over its forest resources: “Forests and the lands belonging to the Forest Service are the property of the Krai population and they constitute the economic basis of the social development in the region.” At the same time, abolishing state ownership and privatizing the region’s forests was prohibited at least for the transition period.

Similarly, during this period, changing the functional status of the forests (through group reclassification) was only allowed in order to increase the degree of protection. All forest resource use in the Krai was to be declared and authorized, all permits were to be paid and they should be valid for a specified time. Concessions and licenses were to be provided on an obligatory competitive basis, rights were to be given any juridical and physical person, including foreigners meeting the juridical and forest legislation qualifications. However, the proposed use permits system turned out to be too complicated.

The “Regulation” was apparently the first legal document in the Russian Federation in which the lease of forest lands was not simply declared but for which a real implementation mechanism was proposed. Lease was interpreted as an additional permit providing a forest user with an exclusive right to fully use forest lands. The notion of exclusiveness did not cover forest resources that might reduce the value of the lease. Such a clause of lease exclusiveness still cannot be found in any of the currently existing forest acts, including the RF Forest Code (Lesnoi kodeks, 1997). So far, it has only been included in the Forest Code of Khabarovsk Krai and the draft Forest Code for Amursk Oblast.¹⁶

The “Regulation” describes in detail a system of payments for forest resources that seems cumbersome and includes eight types of payments.

The “Regulation” also contains more interesting new ideas, for example, a list of formal conditions which must be met if the right of forest resource use should be refused, limiting the risk of bureaucratic arbitrariness, and it guarantees the rights of the population for recreation and use of forests for private needs on leased lands and lands held in concession.

As a whole, the “Regulation” was a significant step in the direction of establishing a democratic forest resource use system and in the current Federal Forest Code one can see a number of positions which first appeared in the Khabarovsk “Regulation.” However, the Khabarovsk “Regulation” also included a number of features contradicting this democratic spirit. These features were based on an inherent strive to achieve a very strict regulation “from above,” from the regional Forest Management and Krai authorities.

After the “Regulation of Forest Resource Use” (Polozhenie 1992a) a number of related documents were developed and adopted, such as the “Regulation on the Forming and

¹⁶ Note that “exclusiveness” here does not mean an unconditional right of a leaseholder to do whatever he might want on his forest land. The rights granted a leaseholder by the RF Forest Code as well as the Khabarovsk Forest Code are usufruct rights to the forest resource. These rights do not exclude the right of a third party to use other resources on those lands.

Use of a Krai Nonbudget Fund for Protection and Regeneration of Forest Resources” (Polozhenie, 1992b), the “Regulation on the Preparing and Organizing of License (Concession) Tenders” (Polozhenie, 1992c), the “Regulation about Quality Certification of Forest Users in Khabarovsk Krai” (Polozhenie, 1992d).

The above mentioned regional legislative acts vaguely raised the question of liquidation of the old system of centralized assignment of forest resources which would make forest loggers the actual owners of the forests.

At the same time, regional nonbudgetary funds of forest resource protection and regeneration were established. These funds are still in operation although on a smaller scale than was originally expected.

In addition to these specialized forest legislative acts, a number of other regional documents influencing forest resource use were adopted during these years. For example, the “Temporary Regulation on Territories of Traditional Nature Use of the Indigenous Northern Minorities of Khabarovsk Krai” (Vremennoe polozhenie, 1991) declared all forests of such territories protected by transferring them to “Group I” forests. This way they were made unavailable for industrial exploitation, while wood harvesting for local demands and with the permission of Krai authorities was allowed (including export to other regions and abroad). Forest use was also influenced by decisions on game reserves (*zakazniki*) (Zoological *zakazniki*, 1993) and approval of specifically protected areas (Ob utverzhdenii..., 1993). All these areas are located on the lands belonging to the Forest Service. Decisions on the harvesting of medicinal resources and the approval of the list of protected plants are also examples of such acts (Ob uporiadochenii..., 1992).

Thus, in the sphere of forest legislation, the period of 1991–1993 was very important because it provided an opportunity to introduce the basics of a new forest legislation at the regional level. This initiative was mainly due to the Krai Council and later its experience was partially used in preparing the federal “Fundamentals of Forest Legislation”. In other respects, however, this period was complicated and contradictory.

The New Forest Code

In 1993, the “Fundamentals of Forest Legislation of the Russian Federation” were approved (Osnovy, 1993). To a great extent this text was a mixture of clauses found in the 1977 “Fundamentals of Forest Legislation of the USSR and Union Republics” and completely new propositions on a number of phenomena caused by the transition to a market economy. This made the new 1993 “Fundamentals” internally very contradictory making it, in fact, a useless document. On top of that, all efforts at regional specificity had been eliminated in it. The approval of the “Fundamentals” severely hampered development of regional laws, although a number of acts supplementing and interpreting the “Fundamentals” were adopted in Khabarovsk Krai. In January 1997, the new RF Forest Code was approved (Lesnoi kodeks, 1997). This document is largely oriented towards market conditions in the forms they were to be seen in late 1996–early 1997. But this document did not take the regional specifics of this large country into account either, although leading bureaucrats at *Rosleskhoz* at the last moment insisted

that the Code is a law of direct action which does not need further elaboration in regional acts.

The definition of “forest” is principally important in the RF Forest Code. This determines all further conceptual constructions. In the Code preamble “forest” is defined as the “totality of forest vegetation, land, wildlife and other components of the environment having important ecological, economic and social significance”. In one sense this coincides with the interpretation of “forest” provided in the Russian silviculture-botanic, biogeographic and forest economic scientific literature, but it does not correspond to traditional Soviet and subsequently Russian legislation and its detailed division of nature types into separate resources. According to this tradition, land and forest are separate resources, although they can neither logically nor physically be separated. This was precisely one of the points causing the Russian President not to approve an earlier version of the RF Forest Code, in which land was not included into the concept of “forest”. However, this concept of “forest” still needs a more stringent definition comparative to the one used in the adopted version of the Forest Code. This is a matter of principal significance considering the conditions in the Russian Far East, where forest lands used to be — and still are — the most important reserve for expansion of other types of land use.

The RF Forest Code has ruined the very powerful and useful notion of “Forest Fund” (*lesnoi fond*), which existed before the approval of the Code embracing all forests in the country. The Forest Code has left the term “Forest Fund” merely to designate forests being at the disposal of *Rosleskhoz*. This means, in effect, that a departmental division of Russia’s forests have been introduced. The concept “tree- and shrub-type vegetation” (TSV) (*drevesno-kustarnikovnina rastitel’nost’*) was instead introduced by the Code. First, this is a return to a separation of vegetation from land, which seemingly is prohibited by the Code itself. Secondly, TSV is an element of any forest, including those belonging to both the “Forest Fund” and “forests not included in the Forest Fund”. All these innovations have an evident departmental feature, but they complicate the management of the whole forest cover at the *krai* and *raion* level.

In Khabarovsk Krai the share of the forests which are not, according the RF Forest Code, included in the Forest Fund is relatively small, 0.9 percent, but it still makes up 0.7 million ha. Currently these forests are not covered by inventory activities — which already exerted an influence on the 1998 Forest Service land use survey — and in practice they are lost for management.

The basis for forest use relations is the system of property rights relating to forest resources. After 1918 and until the approval of the RF Forest Code in January 1998, the State was the only legal owner of Russia’s forests. However, this does not completely reflect actual practice during recent years. According to the “Fundamentals of Forest Legislation” (from 1993) property in forests could not in general be established. The RF Forest Code introduced a more sophisticated property regime. The following types of property relations are distinguished in the RF Forest Code:

- federal property of lands managed by the Federal Forest Service and of forests located on the lands of the Ministry of Defense;
- property of forests located on residential lands determined by federal law;

- private property of TSV located on lands being the property of individuals or juridical persons; and
- private property of TSV which have appeared on the land after it became the property of an individual or a juridical person.

The property in TSV located on municipal and even state lands is not stipulated by the Forest Code. In addition to this, the two last points of the above list include the separation of forest and land again.

Thus, the dominating part of the forests in Russia as a whole as well as in Khabarovsk Krai in particular is designated state federal property. At the same time, the RF Forest Code does not exclude a mixed ownership of various forest types: state (federal and *krai*), municipal (various levels — *raion*, city, town, village), of non-governmental organizations, collective, private.

The RF Civil Code (Part 3, article 129) regulates the economic use (*khoziaistvennyi oborot*) of land and other natural resources (Grazhdanskii kodeks, 1997). However, it does not define to what extent natural resources — forests in particular — may be regarded as property, how and what parts of the forest (which forest objects) may be involved in economic transactions, how forest resources (e.g., exploitable forests) may be used after they have been pulled into economic circulation and what are the forms of state property in those forests (e.g., forest reserves — *zapovedniki*) that are not included in economic circulation.

In Khabarovsk Krai, as well as in other regions being Subjects of the Federation, property issues determine who is to have the authority and disposition rights of the forests. Chapter 7 of the RF Forest Code describes the powers of the Federation, its subjects and organs of local self-government (municipalities — cities, towns, *raiony*, villages) but the rules are not always clearly formulated. The Code abolished almost all legal rights of municipalities to affect forest legal relations. This competence was instead transferred to a higher level — to the level of the Subjects of the Federation.

Regulation of Forest Use

The RF Forest Code as well as the “Fundamentals” (Osnovy, 1993) distinguish seven types of forest use. However, these classifications were made on various grounds. First, two types of use — harvesting of wood and oleoresin — are monoprodukt types of use. The third and fourth types — harvesting of secondary forest resources and by-products — cover a broad spectrum of monoprodukt uses and should logically also be separated. When preserving the term “secondary use”, it would also seem necessary, observing logic, to preserve the term “principal use,” but this was not the case.

The fifth and seventh use types — hunting, culture-sanitation, tourism and sports — are quite vague and could mean many different types of activities. By the way, sanitation, tourism and sports uses are actually subtypes of “recreation use” which is not at all mentioned in the Code. The sixth type of use — scientific research — might, in essence, include any type of use. The classification issue is relevant since it determines which procedures to use to document, pay for and control forest use, as well as what kind of

technology is allowed in the exploitation of a certain forest plot. There are a number of forest uses not mentioned in the classification that are of interest here.

The Code neither provided a general definition of the concept of “use” nor any principles for distinguishing various types of use. It does not clearly separate “social”, “ecological” and “resource” uses and it does not contain any definition or attributes of the term “forest use”. The notion of “forest use” is not included in the list of main demands on forests management (article 54), it is also missing in the main principles of state forest management (article 50), although the notion of “sustainable forest use” is introduced there. Seven use types named in the Code do not cover their total current diversity. The Khabarovsk Krai Forest Code contains 24 types of “forest use”.

Assigning forests to various users can be done in different ways according to the Code: through lease, concession, short-term use, etc. Each one of these ways entails specific terms of duration and user rights. The maximum duration of forest leases is 49 years. In the type of forest vegetation conditions prevailing in Khabarovsk Krai such a term does not stimulate a leaseholder to regenerate forest resources, since 49 years is less than half the time it takes for forests regenerated by a leaseholder to mature. From this point of view users should be allowed to lease forests for a period covering one economic turnover, i.e., for 80–150 years, or it should be stipulated that the lease contract might automatically be prolonged. This kind of automatic lease prolongation was included in the Forest Code of Khabarovsk Krai for the first time in Russia. It is subject to approval of the Krai’s Forest Use Commission.

According the Code, assigning lands for forest use can be made through tenders or auctions as well as through direct negotiations. The Code expresses a preference for tenders and auctions. It does not stipulate exactly under what conditions direct negotiations could be used. This fact leaves a loop-hole for arbitrariness and bureaucratic corruption, where bureaucrats might decide themselves what form of assignment to use and when.

The Forest Code unconditionally prohibits the sublease of forest tracts, but the reasons for this prohibition are not made clear. As a result, subleases that are actually used in Khabarovsk Krai have moved into the shadow economy.

The issuance of documents necessary to obtain the right of forest use (licenses, agreements, logging card, forest tickets, etc.) is only generally described in the RF Forest Code and the regulations need more detail. Certification of forest users by a specially established commission was made obligatory. Such certification already began to be used in Khabarovsk Krai before the adoption of the RF Forest Code when a large number of new private forest users started to appear. A license of the right to become a forest user is issued on the basis of a certification. This way the Forest Code gives a new understanding of “licensing” compared to the “Fundamentals” of 1993.

The payments system consists of 1) forest dues (payment for use), and 2) rent. Here the Code does not explain the structure and principles of formation of such an important instrument as the rent, thereby officially leaving it in the hands of the RF Government and *de facto* of *Rosleskhoz*.

Fees include the following payments 1) for standing timber, i.e., traditional stumpage fees, and 2) for products of secondary use, such as oleoresin, secondary forest materials, hay, etc.

Payments privileges are stipulated from the social standpoint.

The Code established a double level of payments for forest resource use. At the federal level the minimum rate of forest fees (so-called “stumpage fees”) — payments can never be lower — is determined by the Federal Forest Service. The rates of this level are differentiated according to region, species, timber quality, and distance transported. At the local level these rates may be increased above the federal minimum.

The distribution principle of forest payments between different budgets is of great importance. Forty percent of the payments collected through minimum rates are transferred to the federal budget, sixty percent goes to the budget of the Subject of the Federation (the region). The total above the minimum rates (as fixed by local price lists established through a tender procedure) is supposed to be transferred to the *leskhozy* for forest maintenance purposes.¹⁷

Thus, the Code abolished conditions that had existed for many decades according to which practically all forest payments were transferred to the municipal (*raion*) budget. For many municipalities in the Khabarovsk region forest payments were an important source of supporting local schools, hospitals, etc., to pay staff salaries.

Interferences into the economic activities related to forest resource use is only allowed in case the legislation on forest and nature protection is violated. In case lands of the Forest Service are withdrawn from economic use the direct losses of the forest user are compensated, but compensation of profits foregone are not envisaged.

The RF Forest Code includes a number of other more or less evident internal contradictions and also regulations at variance with other legislation, including such basic ones as the RF Civil Code (*Grazhdanskii kodeks*, 1997). All this is related to the fact that it has preserved a number of drawbacks characteristic of the “Fundamentals of Forest Legislation” of 1993. It does not, for example, foresee a system of local considerations and it does not provide interpretations of a number of practical situations.

In summary, the most essential shortcomings of the Code are the following:

1. The Forest Code lacks clear definitions and concepts.
2. The forest legislation being a component of Russian Federation legislation on natural resources does not conform to contiguous branches of Russian legislation.
3. Issues of legal capacity of subjects to the forest relation and other issues related to the rights of forests and forest lands are not clearly determined. The interpretation of forest property does not conform to the spirit of the Russian Constitution and Russian Civil Code.
4. The mechanism of payment for forest use is not clearly determined.

¹⁷ In reality, until mid 1999, there had never actually been any bidding in auctions or tenders. However, in some cases, tender commissions set start prices that are higher than the “minimal” prices. So it can happen that actual prices are higher than the fixed, minimal prices.

5. Issues of public involvement in decision-making and forest management are not sufficiently worked out.
6. There is a tendency to centralize management power and the weakening role of the Subjects of the Federation can clearly be seen in the Code.

The propositions of the RF Forest Code require significantly more precise definitions and detail. This is supposed to be achieved through the adoption of about twenty normative-legal acts at the level of the Russian Government and *Roslekhhoz*. A number of such acts have been approved by the Russian Government (Plan 1997).

A majority of Russia's forest provinces do not agree with the idea that the RF Forest Code is a law of direct action, which does not require additional regional laws. Khabarovsk Krai even appealed to the Russian Constitutional Court questioning the Forest Code's interpretation of property issues relating to the distribution of forests between the Federation and its Subjects. The Constitutional Court refuted the protest not because of its views on the disputable issue but because of the adoption procedure of the RF Code (Postanovlenie, 1998).

The Khabarovsk Forest Code

In December 1998, the Legislative Duma of Khabarovsk Krai approved the Krai Forest Code, the draft of which was developed within the framework of a Russian-American project (the "Russian Far East Sustainable Natural Resource Management Project," EPT/RFE) established in collaboration with USAID and the Harvard Institute of International Development (HIID). The draft of the Code was presented to the Duma for approval by the Krai Administration. The Code was then revised by the Duma and the Administration together. (Actually, for this revision the leader of the EPT/RFE team was appointed the official representative of the Administration.) Shortly after its approval by the Duma the Code was signed by the Governor and it has been in force since February 1999.

An expert group with more than 20 participants was in charge of developing the Khabarovsk Forest Code. The group included representatives of the forest management, the forest industry, environmental organizations, the Krai Administration, legal professionals and scientists. It was made the subject of several discussions in specially organized seminars and it passed through a two month procedure of public consideration with a broad treatment in mass media and conclusive public hearings. In the course of development and after it had been passed by the Krai Duma, more than 800 remarks from various Krai and Federal organizations as well as from qualified international experts were received and taken into account.

The goal of the exercise was to compile a document, which would not contradict the RF Forest Code but conform with all its principal propositions and, at the same time, take the special legal forest relations established in Khabarovsk Krai into maximum account. Those involved in the Krai Code development faced a choice which they could determine in two alternative ways:

- They might choose to agree that the RF Forest Code is a law of direct action and go ahead and compile individual normative acts on particular issues elucidating this or that regional specificity (the *Roslekhos* proposal);

or

- They might consider the RF Forest Code as a normative act “heading” a package of forest laws and other normative documents at both the federal and the local level subsequently to be elaborated and compiled into a comprehensive Khabarovsk Krai Forest Code in which that mechanism of legal action that is poorly worked out in the Federal Code would be strengthened as far as possible.

The experts engaged in the elaboration of the Khabarovsk Code preferred the second way based on the independent role of Khabarovsk Krai as a Subject of the Federation. At the same time, due to the Constitutional norm on the supremacy of federal level laws, it was necessary to make the Krai Code agree completely with the Federal Code, which includes, as was already mentioned, a number of internal contradictions as well as contradictions with other existing legislation. As it turned out, it was not possible to completely avoid such contradictions in the Krai Code.

In the following paragraphs the principal specific features of the Khabarovsk Krai Forest Code are specified:

The Federal Forest Code allows that property in forests be transferred to the Subjects of the Federation (regions) thereby also transferring the total burden of forest maintenance to them. Currently, the Krai budget cannot accept this burden, but this situation might change in the future. This is why the formulations on property, which preserve this opportunity, were accepted.

In comparison with the Federal Code, the Krai Code more clearly describes the powers of the Krai and the municipal organs in the sphere of forest legal relations.

Unlike the Federal Code, the Krai Code starts with a definition of all principal terms and notions at once eliminating a number of contradictions contained in the RF Forest Code thus making the Krai Code more clear.

All types of forest use are described more extensively and much more accurately in the Krai Code compared with the RF Code. Different types of forest use are divided into classes: social, protection-ecological, raw materials, a class of forest land utilization in itself is also distinguished.

The whole system of transfer of forest use is described in the Code, clearly indicating the procedures to be followed. The legitimacy of the Khabarovsk Krai Commission on Forest Resource Use is confirmed — the Commission was established as one of the first in Russia and such committees are currently widely spread in other Subjects of the Federation. The Krai Code proposes to assign forest use rights, including not only timber resources, entirely through auctions and tenders. Exceptions from this rule (direct transfer of rights) is proposed to be allowed only due to special social preferences. In all remaining cases, and in contrast to the Federal Code, the Krai Code declares all forest users equal.

All forest users should go through certification to get licenses authorizing them with the rights of forest use and other types of use. These licenses should periodically be sustained by a repeated certification — a procedure that is also not required by the Federal Code.

A continuous control of forest user activities is foreseen. Forest users who introduce advanced technologies and observe silvicultural and ecological demands are to be stimulated by various incentives, such as advance prolongation of leases. Thus, by observing a rational forest use, leases might in principle become endless. However, penalties for improper forest use are simultaneously stipulated, the most severe of which would be the cancellation of lease rights.

The result of a tender process constitutes the basis for a forest lease agreement. These conditions are also extensive compared to what is stipulated in the RF Forest Code. An agreement should include the rights and obligations of a forest user relative to the use, protection, guarding and regeneration of forests on the leased area. An agreement provides the leaseholder with an exclusive right to use the type of resource leased (such exclusiveness is not stipulated in the RF Forest Code). But it does not give the right to use resources not included in the lease and it does not limit people's access to forests to satisfy their requirements.

Like the RF Forest Code, the Khabarovsk Krai Code allows free access to the forest for all citizens and all types of use (limited to the satisfaction of personal needs). In distinction to the Federal Code, the Krai Code prohibits the use of leased resources on leased lands for anyone but the leaseholder.

Free access for residents does not mean complete deregulation. The Forest Code of Khabarovskiy Krai specifies and expands the list of limitations contained in the Federal Code. Thus, it

- prohibits the use of forests and forest products for commercial purposes without having proper permits in writing;
- prohibits the harvesting, storage or sale of wild plants and mushrooms which are in the Red Books of Russia and Khabarovsk Krai;
- prohibits the harvesting, storage or sale of wild plants and mushrooms which are listed as containing narcotics or as natural products containing narcotics;
- obliges hunters to observe the corresponding legislation of Russia and Khabarovsk Krai;
- prohibits the hunting of animals which are listed in the Red Books of Russia and Khabarovsk Krai;
- obliges citizens, who make use of the right to personal consumption of forest resources, to observe the propositions and rules legally determined by the Russian Federation and Khabarovsk Krai and other established norms of behavior;
- regulates the entry on territories of nature monuments, nature and national parks, reserves (*zakazniki*), and other specially protected territories, in accordance with established rules; and
- temporarily prohibits access to the forest during periods of high fire hazard.

The Krai Code allows the tender commission¹⁸ to request security before the leased forests may be used. This measure is intended to guarantee compensation for damage that might be caused by a user as a result of illegal activities. In case all lease agreements are observed the security will be returned to the user when the agreement has expired.

The RF Forest Code regards assigning of forest concessions to be the exclusive right of the Russian Government. The Krai Code proposes to assign forest concessions on the territory of the Krai after an agreement has been reached with the Krai Administration.

In comparison with the Federal Code the assignment of forest use without compensation is regulated in more detail in the Krai Code. Such use can be assigned to noncommercial organizations for the satisfaction of their needs. Resources extracted from such lands are not allowed to be used for commercial purposes. The assignment without compensation is made through a decision of the executive authority organs without any prior bidding. Hereby a notion of the free use of Forest Service lands is introduced.

A new approach is suggested for the definition of payments for forest use: payments should always be determined through bidding and not through fixed price lists. In this context the minimum forest fees envisaged by the RF Forest Code and approved by the Federation constitute a base level below which starting bids are not allowed. However, in every individual case the tender commission may assign a higher starting price if it considers the given forest plot worth more. Rates established as a result of bidding remains valid during the whole use period but they may be indexed to allow for changes in the financial-economic situation.

Separate payments (at different rates) are envisaged for the volume of directly harvested wood and the total area of leased forest lands. Payment for the total area has been introduced in order to prevent unreasonable expansion of a lease area, but also to stimulate users' interest in rational resource utilization.

In the Krai Forest Code it is clearly stipulated how the share of payments for forest use that remains in the Krai should be distributed. It is envisaged that half of the Krai payment share should go to municipal (cities, *raion*) budgets.

The size and form of payments for resources owned by some other party than the State are determined by the resource owner in direct negotiations with the user or through tenders. In the RF Forest Code such payments are not envisaged at all.

Compared to the RF Forest Code the Krai Code has significantly wider clauses and sections dedicated to the role and the rights of the public in managing and controlling forest use, as well as access to information on forests and forest use.

A special chapter is included in the Krai Code dealing with public ecological assessment (*ekspertiza*) of all plans, decisions, technologies, techniques, etc., related to the protection, guard and reproduction of forests.

¹⁸ Each tender (or auction) has a tender commission appointed. This is a temporary organization established only for a certain tender/auction.

An anti-monopoly clause is introduced which is intended to counteract the concentration of significant portions of the region's forest lands in the hands of a single forest user.

The Krai Forest Code stipulates the rights of Northern peoples (national minorities) to their traditional use of forests within the limits of the territories set aside for traditional nature use. This is a very important regulation for Khabarovsk Krai where more than a dozen such national minorities reside.

In the sphere of forest management, forest protection and the guarding and reproduction of forests the Krai Code also regulates a number of issues more clearly and with a broader interpretation. In particular, the total forest cover of Khabarovsk Krai is regarded as a single entity and labeled "forests" irrespective of its form of property. Control of all Krai forests and the systematic management of their use, protection, guard and reproduction are implemented by the Krai Administration via the regional Forest Management. This means that the Khabarovsk Forest Management is given broader functions than just being a local organization of the Federal Forest Service (*Rosleskhoz*).

A number of other forestry issues are more clearly described in the Krai Forest Code than in the corresponding Russian Code. For example, a procedure for assigning forest lands to treatment logging¹⁹ is described in detail. Forest management and inventory are separated (this is not mentioned in the RF Forest Code at all), etc. As a whole, according the appraisal of various organizations in the region and elsewhere, the Khabarovsk Krai Forest Code is a reasonable and sound document greatly eliminating many shortcomings of the RF Forest Code, while simultaneously expanding and supplementing its propositions by taking regional specificities into account. Compared with the Federal Code it is more democratic, more transparent, conforming more to the spirit of the economic reforms and it is more "user friendly".

Not all issues relating to the Krai forest regulations have been solved with the Krai Forest Code and development of additional regional normative acts for particular issues will undoubtedly be necessary. The legislation at the regional level is continuously being developed.

5. Malfunctions in the Khabarovsk Forest Sector

The present chapter seeks to identify the deficiencies in the management of the Khabarovsk forest sector preventing its efficient functioning. If current problems were only caused by some disturbances in information or command links then it would be relatively simple to solve the management problem. In reality, as has been shown above, the management structure is very complicated and not very obvious. This is also the reason why the problem of mismanagement is so complex and persistent.

It is widely recognized that mismanagement of the entire Russian society, including activities in the forest sector, are increasing. At the regional level this is illustrated by the fact that twice or three times a year the board of Khabarovsk Krai Administration

¹⁹ Here "treatment logging" means cutting in non-mature stands.

considers issues pertaining to the activity of the forest sector and each time its assessment demonstrates the inefficiency of the sector and its poor management.

Most of the problems are undoubtedly caused by the general economic crisis and the political instability in the country. However, those factors will not be further considered here. The existing management problems might be structured into a number of overlapping groups.

1. Discrepancy between nominal and factual rights and powers and their distribution between various levels of management

Management rights can be seen as structured in different sets which, stored one on top of the other, resemble an upside-down pyramid. At the highest level, of management one finds the largest and most differentiated set of rights which can be executed by any one person. At lower levels of management the sets of rights decreases and existing rights are concentrated to still fewer people.

Let us take the most developed and disciplined departmental hierarchy of the Federal Forest Service as an example. The foundation of its “rights pyramid” is located at the top (federal) level and the staff of the federal headquarters has many and comprehensive rights. At the bottom of the hierarchy the sharp peak of the overturned “rights pyramid” falls on a forester (the head of a *lesnichestvo*) who is the only person directly executing all the management functions at the forest sites. However, he (or she) is not completely independent in this position, except for the selection of specific sites of exploitation. But in so doing, the final decision has to be approved by the higher instance, the *leskhoz*.

This example applies to those authority hierarchies, which are built on a strict disciplinary and financial dependence from the top. Nowadays, this is only preserved in organizations financed via the federal budget. However, such top-down relations do not exist today between many management hierarchies operating in the Russian economy. In these hierarchies, especially at the federal level, the illusion from Soviet times still remains that all power belongs to the top level and that this power can — but does not have to — be delegated to lower levels in the hierarchy. At lower management levels this state of affairs has been questionable for long, especially after Yeltsin’s well-known “Keep as much sovereignty as you can” catchword from 1991–1993. This is why both the regional (*krai*) and the municipal (city, *raion*) authorities today believe that their rights to a large extent have been usurped by higher levels and they are not willing to reconcile to the fact.

This is illustrated in the management hierarchy of the forest industry depicted in Figure 2:1 where lower levels neither financially nor administratively depend upon higher levels. This is a fact that weakens both the recognition and observance of orders from above as well as their execution at the lower level. It also affects information and reporting from lower to higher levels.

The recent development of the World Bank Pilot project may serve as an example. The federal Ministry of the Economy in Moscow managed the entire preparation of the project. Accordingly, it issued orders on the structure, goals and sequence of the use of loans to the regional level. However, the financial responsibility to the World Bank will

completely fall on the Krai Administration. Hence, the Krai Administration also interpreted the issues and implemented everything in its own way.

This kind of distortion of management links causes a second group of management problems.

2. Struggle for redistribution of rights and powers

Currently, a prominent feature of Russian social life is the struggle for redistribution of rights. It occurs along both a vertical and a horizontal axis on all levels and spheres of authority. It is especially noticeable on the regional level where regional administrations try to expand their rights at the expense of the federal center on the one hand, and, on the other hand, at the expense of their municipalities (cities, *raiony*).

A similar struggle occurs between various levels in the public authorities. The *Rosleskhoz* hierarchy, for instance, rivals the State Committee for the Protection of Nature and the Ministry of the Economy, the president-government-governor hierarchy is struggling with the legislative hierarchy, etc. In contrast to the situation in neighboring regions the president-government-governor power struggle has never occupied a prominent position in Khabarovsk Krai. But the general situation in the country could not but influence the Krai and currently the relations between the Krai Legislative Duma and the Administration are deteriorating, although they have not yet grown into an open conflict.

The strong knot of contradictions tied to the redistribution of powers and rights has undoubtedly to some extent been provoked by the authoritarian pretensions of certain state organs and politicians. However, the real struggle is for the control of financial flows, including budget flows. This control gives real power and it allows personal enrichment, which leads us to the third group of problems.

3. Corruption of the management machinery

The issue of corruption does not only concern direct bribery and graft of managerial staff at all levels, which has become an ordinary and widespread phenomenon. The problem is rather that today practically all managerial personnel regard their position as a source of personal enrichment through the collection of various benefits, privileges, “indirect gratifications” from organizations interested in their decisions, and through direct appropriation of means, securities or parts of property, etc. As a result, a majority of decisions made are not to the benefit of society but are rather taken to further the situation of certain individuals or groups. In this case personal informal relations play a special role. This also leads to mutual guarantees and eventually to financial and tax crimes, which are not always realized by those performing them (by the rationale that “everyone is doing the same”).

It is this state of affairs that has spurred the struggle for power redistribution. The forest resources represent a delicate piece of state property, the disposal of which provides great opportunities.

The basis for such a corruption is a general erosion of moral principles. This is also caused by the low payment level offered by the state system (currently many workers in

leskhozy are paid less than 100 or even 50 dollars a month) as well as months' long wage arrears. Under such conditions direct bribery increases, since graft often becomes the sole means for a state employee family to survive.

Under similar conditions any "holes" in the net of state management may benefit personal interests. This is related to the fourth and fifth groups of problems.

4. Information provision to management is lost because of the demolition of the field account and control system

During the course of transition reforms many new controlling units have been established, such as the tax inspection, the tax police, and various auditing departments. These are all related to financial control. At the same time, the budget deficits require a continuous decrease of the large state and municipal management machinery. Such a decrease is also implemented but mainly through liquidation of primary units dealing directly with factual data.

As a result, the municipal (city, *raion*) offices of the State Committee on Statistics (*Goskomstat*) have been closed down causing the accuracy of statistical data to drop to its lowest level since the early 1920s. The number of hunting and fishing inspectors at the municipal level has been decreased to a minimum. The State Committee for the Protection of Nature operating in Khabarovsk Krai reduced its number of offices in the region from 24 city/*raion* committees to only 17 inter-municipality committees and the staffing of these offices were simultaneously reduced to 1–2 persons. In forestry, a number of foresters and forest technicians have been laid off, the number of *lesnichestva* has been consolidated.

This way the management system is losing its "grass roots" making its operation unreliable and ineffective.

5. Insufficiency of the legislation and non-observance of laws

Understandably, under the conditions described above, individuals and organizations who are supposed to observe and protect the law lose their interest in doing so. Non-observance of the law has become a norm to the extent that in every municipality some resolutions of the administration or legislative assemblies are annually canceled on the grounds that the procurator protests them as contradicting the laws. Then, what can one say about every day operational decisions?

Still, however, there is a large deficiency of laws covering broad aspects of activities going on in society. For example, there is no common law on the use of nature. As a result, all the more particular laws adopted (like the Water Code of 1995; the Forest Code of 1997, etc.) do not agree with each other in some instances. This is largely a result of the lobbying of individual group interests and the rapidity at which both federal and local laws have been adopted.

With such an imperfect legislation even the regular coordination of laws adopted by the Subjects of the Federation with Federal laws turns into its opposite; a struggle between the center and the regions and a strive to restore centralization. All this limits initiatives at the regional level and makes regions repeat the mistakes of the Federal legislation.

The imperfect legislation leaves the field open for despotism, which distorts the whole management system. It is also obvious that Khabarovsk Krai has a “forest lobby.” It is manifested in the participation of local forest elites in different temporal or permanent commissions that are established by the Krai Administration for solving the different kinds of problems related to the forest sector. The Krai Duma does not have any representatives from the forest industry among its members. Shadow lobbying for separate forest enterprises takes place through multiple personnel linkages between the forest lobby and high position bureaucrats of the Krai and *rayon* administrations. As a rule the strongest forest lobby is associated with “Dallesprom” — the biggest forest industry corporation in the region.

The five groups of problems mentioned above, which complicate and at times simply makes a normal, efficient management impossible, do not encompass *all* existing problems; the problems listed only illustrate the general environment in which the management system is embedded. Without solving these problems, which can only be done through long and persistent reform work, the management system will remain ineffective for a long time.

6. Enterprise Behavior in the Forest Sector

Most of the problems in the Khabarovsk Krai forest sector affect the behavior of the firms as well as how representatives of these firms look upon the situation. This chapter aims at clarifying this interdependence. The analysis is based on structured interviews with a stratified sample of 25 forest enterprises in the region. The data obtained in this way is compared with data on 136 firms from six other Russian regions as well as with corresponding data on 25 forest enterprises in northern Sweden, the latter firms presumably faced with a more “normally” functioning market environment.

All interviews with representatives of forest sector enterprises in Khabarovsk Krai were conducted in the period October–November 1998. Different kinds of enterprises are represented in the sample. Thus, the chapter is based on interviews with enterprises of various organizational-legal forms, activities, production scale, and location. Unfortunately, it was impossible to include timber harvesting units in remote areas of the Krai. To compensate for this gap additional data on timber harvesting enterprises in the Krai was collected from various sources. These data also provided a foundation for the discussion above.²⁰ The analysis of the interview results follows the structure of the questionnaire

²⁰ In the process of their work the interviewers identified a number of problems related to the method of investigation. The most important of these problems were the following:

1. Since the survey was designed for enterprises mainly engaged in one type of activity, it turned out to be difficult to characterize multi-profiled units with the help of the given questionnaire. This problem is presented in more detail below.
2. Due to a lack of accurate economic-statistical data information was not available in a number of cases. According to existing rules, accounting documents containing the requested information are preserved in the enterprises’ own archives up to 5 years, after which they are transferred to central archives. This is why even former state enterprises, the accounting of which is traditionally more regulated, often could not provide data from 10, and in some cases, even 5 years ago.
3. Respondents in most cases answered the questions in a one-word manner. One of the reasons for this is the fact that surveys, as a method of collecting information, is still uncommon in this area. Another reason

used (cf. Appendix 6:1) and is divided into four sections: (1.) general description of the enterprises; (2.) the input side of the enterprise; (3.) the output side of the enterprise; and (4.) institutional aspects. All interviewed enterprises are listed in Table 6:1.

General Description of the Surveyed Enterprises

Out of the 25 enterprises shown in Table 6:1 only 3 were established before the beginning of the transition period, the furniture combine *Zarya* (1958), the Tumninskiy complex forest industry enterprise (1973) and *Dallesprom* (1960). The last one should be specifically mentioned. The respondents stated 1992 as the year when Dallesprom was established, but, in fact, this was the year when the latest restructuring of the enterprise was made, changing its organizational-legal form from closed to open joint stock company. From 1960 until 1991 *Dallesprom* was a territorial-production *ob"edinenie*, from 1991 to 1992 it was a closed joint stock company. However, even if it preserved its name the activities of the enterprise were drastically changed with its recently changed legal status. In essence, it became a different type of enterprise with a different role in the forest sector economy. The open joint stock companies *Zarya* and the Tumninskiy complex forest industry enterprise are both former state enterprises that were converted into joint stock companies. However, this change did not cause any change in the orientation of their production. All the remaining 22 enterprises in our sample are newly established. Five of them were formed in 1991, one in 1992, three in 1993, four in 1995, three in 1996, four in 1997 and one in 1998. *Nisso Iwai Corporation* is not an independent enterprise but the regional representative of a large Japanese firm. The firm's respondent could not tell the exact date when the representation appeared in Khabarovsk.

Most of the interviewed enterprises (12) are companies with limited responsibility (Ltd.), five of them are open joint stock companies (OAOs), three are closed joint stock companies (ZAOs), one is an association with limited responsibility (OOO), two are foreign companies (FC), one is a joint venture (JV), and one is a "cooperative" (CooP).

The interviewed enterprises can be divided into three groups according to their number of employees. One group with up to 20 employees (13 enterprises), four enterprises with 21–40 employees, and eight enterprises with more than 40 employees. The largest number of employees is found in enterprises that have a large capacity and that are oriented towards wood processing. The interviewed enterprises account for 18 percent of the workforce in the Khabarovsk forest sector and around 10 percent of the total number of firms in the sector.

Among the interviewed enterprises only three exclusively deal with wood processing, the Khabarovsk furniture combine *Zarya*, the cooperative *Arhipelag* and *Kedr*, Ltd. The latter was formed in 1991, is a private enterprise (IChP) and its production volumes are insignificant. Still two more enterprises have a mixed type of activity including wood processing. These are *Berendey*, Ltd., which in addition to processing is also

is the respondents' distrust and fear that answering some questions related to certain aspects of their business might prove detrimental to their activity.

Furthermore, the interviews sometimes revealed problems of a particular nature related to the fact that portions of the activity in the forest sector takes place in the shadow economy.

engaged in timber harvesting, and the small enterprise *Dalinzhdrev*, which was originally oriented towards exports of sawn timber. According to the respondents, currently the share of this type of activity does not exceed 10 percent of the turnover.

Table 6:1. The principal characteristics of the interviewed enterprises.

#	Enterprise name	Year*	Enterprise type	Form	No. of employees
1	Rymbunan Khidzhau	1997	timber harvesting	FC	42
2	SP Pioneer-Starma Technics	1995	logging machinery import	JV	19
3	ZAO Nelma	1993	timber harvesting	CSC	42
4	ZAO Forest Complex	1998	timber harvesting	CSC	53
5	ZAO Kato	1993	timber harvesting	CSC	41
6	Asia-Les	1996	timber trade	CLtd	5
7	OAo Khabarovsk furniture combine <i>Zarya</i>	1958	woodprocessing and furniture manufacture	OSC	345
8	Tekhnis-DV Les	1991	logging logistics	CLtd	7
9	Plant	1996	timber trade	CLtd	13
10	Korfovskiy Quarry & Co	1996	timber harvesting and trade	CLtd	13
11	Nisso Ivai Corporation	n.a.	equipment supply, timber trade	FC	27
12	Far Eastern Association of Small Forest Users	1995	logging and timber trade	Un	3
13	OAo <i>Dalles</i>	1991	timber export	OSC	39
14	<i>Dalinzhdrev</i>	1991	timber processing and trade	CLtd	48
15	OAo <i>Dallesprom</i>	1992	timber logging management, logistic and commerce	OSC	97
16	OAo <i>Troya</i>	1997	timber trade	OSC	10
17	<i>Kerby</i>	1995	timber trade	CLtd	17
18	OOO Business-Marketing	1992	timber harvesting and trade	PLtd	18
19	<i>Berendey</i>	1997	timber harvesting, wood processing	CLtd	22
20	<i>Kedr</i>	1991	wood processing	CLtd	15
21	<i>Polaris</i>	1995	timber trade	CLtd	2
22	Production-commercial enterprise <i>Flan</i>	1993	timber harvesting and trade	CLtd	37
23	<i>Ligros</i>	1997	timber trade	CLtd	3
24	<i>Archipelag</i>	1991	wood processing	Coop	11
25	OAo Tumninskiy complex forest industry enterprise	1973	timber harvesting	OSC	220

* Year of establishment or reorganization.

Abbreviations used in the table: CLtd – Company Ltd; Coop – cooperative; CSC – Closed Stockholders Company; FC – foreign company; JV – joint venture; OSC – Open Stockholders Company; PLtd – Partnership Ltd; Un – Union.

Eight of the 25 interviewed enterprises regard themselves as timber harvesting units. One of them is a Malaysian company, “Rymbunan Khidzhau”, which won a tender in 1996 to utilize forest lots leased in three municipalities in Khabarovsk Krai, the *raiony* of Ulchskiy, Lazo and Solnechniy. Another large logging unit is the “Tumninsky complex forest industry enterprise”, which was one of the basic enterprises in the forest sector before the transition.

The largest group consists of enterprises of a different type compared to the ones listed above. Almost all of them are involved in intermediary trade (buying and selling) and timber export activities. The growing number of such enterprises is explained by the fact that the system of centralized logistics (*snabzhenie*) as well as the system of trade in forest industrial products were ruined with the start of reforms. The centralized timber export was also demolished. The niche that appeared was rapidly occupied by a number of firms oriented towards the provision of trade services, most often in timber. In spite of the fact that these enterprises filled the gap that appeared during the transition from a planned economy to a market system, the role of this group could hardly be said to be entirely positive. These are enterprises operating in the “shadowy” part of the Krai forest sector. Their activities are difficult to trace and more difficult to control. However, *Dallesprom* and *Dalles* should not be considered part of this group. They differ from the other firms in that they are large holding companies organized as joint-stock companies engaged in open commercial activities. All enterprises belonging to this group compete with one another.

The Far Eastern Association of Small, Private and Non-Governmental Forest Users should be specially mentioned. This association was established in 1995 to handle the regulation of activities and the protection of the rights of small enterprises.

The structure of the forest enterprise sector that emerges in this survey investigation differs from the general structure in Khabarovsk Krai as a whole. More than 400 enterprises related to the forest sector have been registered in the Krai. The sample of enterprises used in our interviews is biased to some extent. But to get a more reliable picture of the functioning of the Krai forest enterprises would have required a more carefully stratified sample of interviews, which available resources simply did not allow.

Enterprise Behavior: Investments

The level of investment could be looked upon as an indicator of ongoing restructuring. But all firms do not have the same incentive to invest. Those firms that sell their products mainly through barter arrangements should typically have little incentive to invest in new equipment, etc., while those submitted to a cash economy strive to reduce the “distance” to the market. For example, formerly state owned companies will have better opportunities to use old contacts, to reach special agreements with authorities, etc., and thus find it “profitable” to avoid restructuring (Gaddy and Ickes, 1998). Given that the use of barter is relatively limited among the surveyed firms and that most of them are newly established, one would expect the investment level to be rather high.

It is therefore somewhat striking that only six (24%) of the 25 Khabarovsk enterprises make any investments in their firms (Diagram 6:1). This level is lower than among

other Russian enterprises in our survey. If we compare with Swedish firms, more than 80 percent of which invest (despite the fact that they probably have a relatively modern production apparatus), the difference is quite notable.

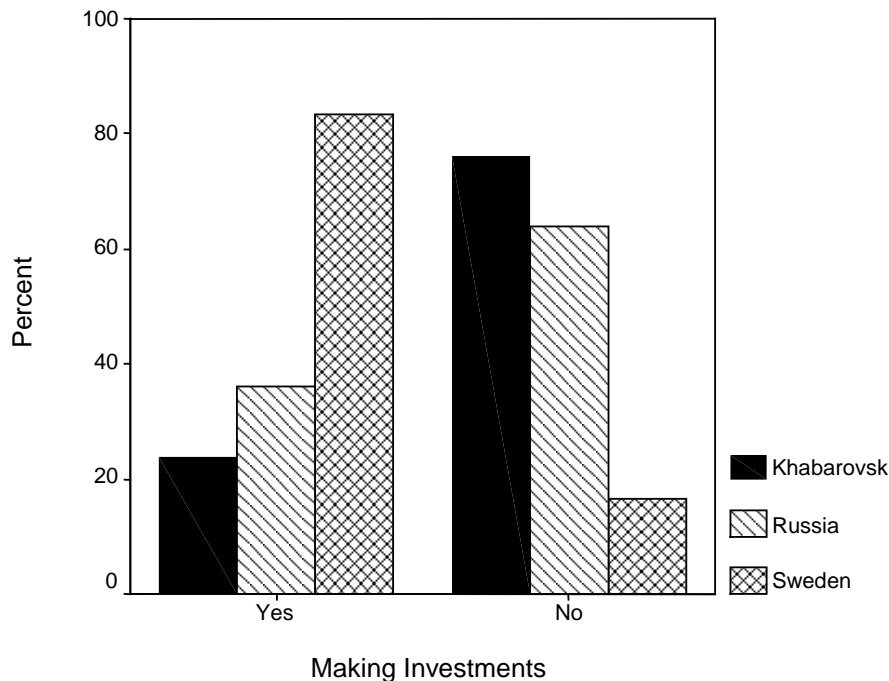


Diagram 6:1. Number of forest firms making investments.

Among the interviewed firms that invest we find that most are joint ventures. This corresponds with what we found in Arkhangelsk (Carlsson *et al.*, 1999) as well as with an observation made by Buitter *et al.* (1998).

Lack of “Capitalist” Behavior

One means of clarifying to what extent the Khabarovsk forest sector is moving towards a market relevant behavior is to compare production, employment and productivity figures. Thus, one could expect that successful restructuring would have the effect that productivity increases. As firms grow and produce more they might also increase employment. On the other hand, in many mature branches, like the forest sector, it seems to be the case that increases in production are associated with a shrinking work force.

As can be seen in Diagram 6:2, the majority of the Russian firms in the survey are found in the “worst” square indicating a decrease in both productivity and employment. Only seven of the Khabarovsk firms provide data (most of them are too young) that can be used for this type of calculation. However, as for the other Russian firms in the sample most of these seven firms are located in the lower left square of the figure. One single firm demonstrates a kind of capitalist behavior, i.e., it has increased productivity as well as employment. There is also one firm illustrating behavior that would be very

inefficient in a normal market type environment. It has, in fact, increased its employment with a simultaneous decrease in productivity.

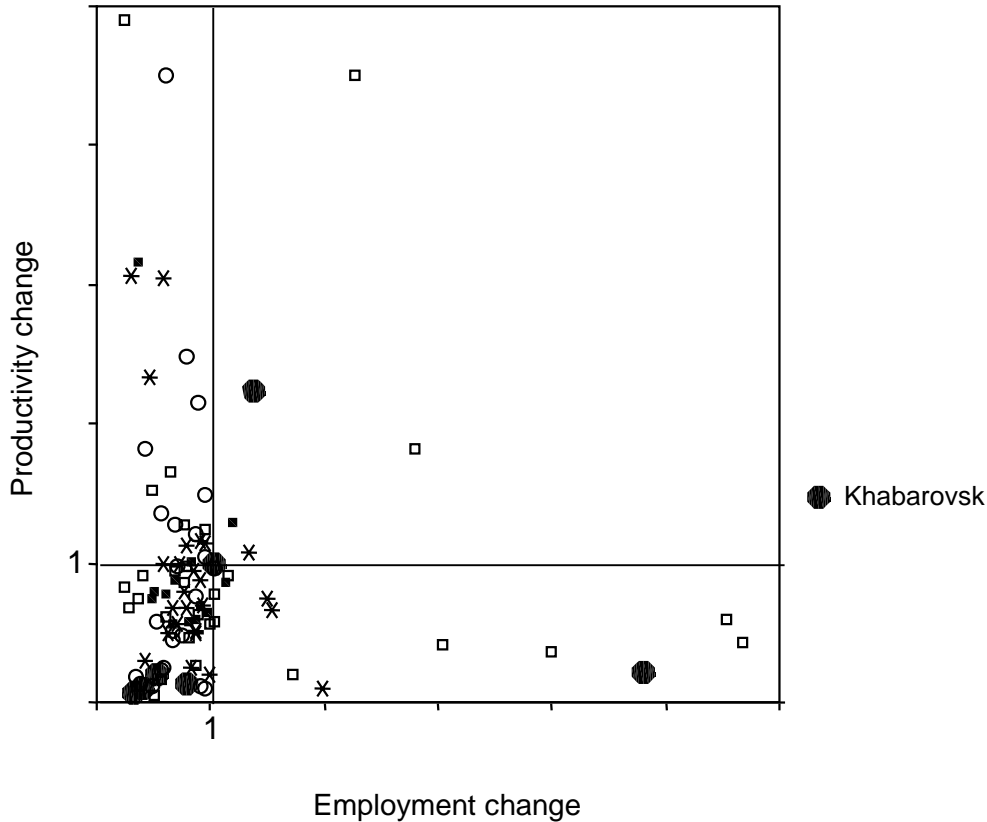


Diagram 6:2. The relation between changes in production and employment in Russian forest firms.

This, of course, reflects the general situation in the forest sector as well as in the economy as a whole. Appendix 6:2 provides additional information on a number of typical timber harvesting enterprises located in various municipalities of the Krai. Here are data on their main production characteristics but also on the amount of debt they have. The latter gives a straightforward indication of the economic problems most firms encounter.

The Input Side of the Khabarovsk Enterprises

In many cases respondents had difficulties answering the questions about inputs, for example. This happened in those cases where the enterprise had more than 10 suppliers, something that mainly applies to larger wood processing enterprises or holding companies. Respondents often refused to name their suppliers and at best they mentioned one or two of the most important. It might be emphasized that when an enterprise is engaged in several types of activities, such as timber harvesting and trade, *leskhozy* are the suppliers of the forest fund lands on which harvesting takes place, while harvesting enterprises are the suppliers for the forest trade. Among the interviewed enterprises it is

only one that does not purchase wood, *Tekhnis-DV Les*, which deals with forest enterprise logistics and with technological design. This is, in fact, a consultancy company.

Diagram 6:3 illustrates that the possibility of acquiring wood is rather good according to most of the respondents. This agrees with a common opinion that, although production volumes of commercial timber have shown a steady and decreasing tendency, no significant timber deficit seems to exist in the Krai.

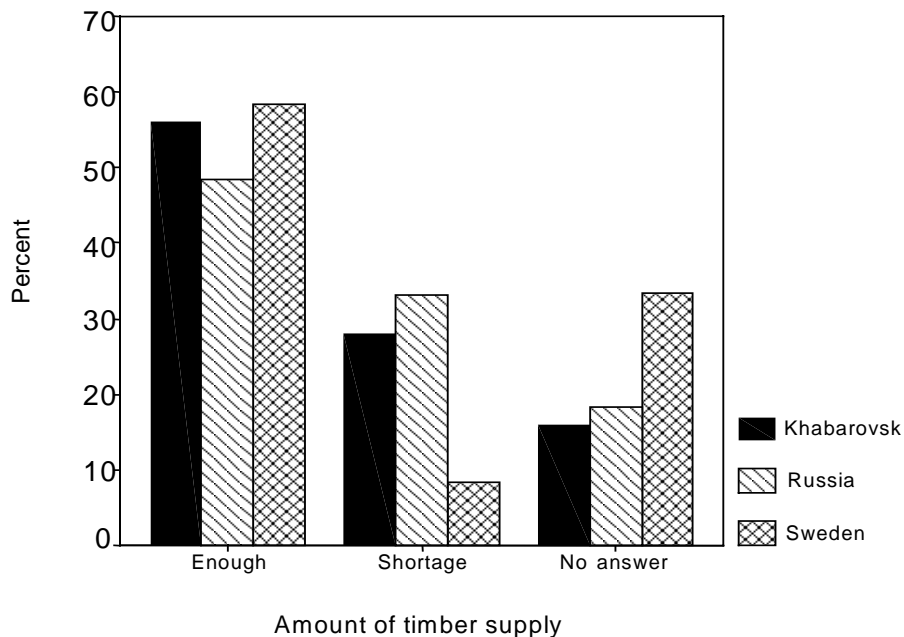


Diagram 6:3. Wood supply.

In earlier sections of this report it has been emphasized how the production of wood has dropped over the transition period. We have also indicated that there might be problems in acquiring wood, especially for larger firms. The main source of wood is forest fund lands managed by the *leskhozy*, but along the chain from the forest to the processing industry we might find a number of intermediates, such as harvesting companies. What is of interest here is to learn to what extent the single firm can get the amount of wood that is required independently of who is the provider. The fact that many firms cannot procure, or mobilize, resources enough to “buy” a sufficient amount of wood does not change our analysis. The base line hypothesis should be that there are always possibilities to get wood if one is willing, and have the resources, to pay enough. Thus, the perceived shortage of wood should be regarded as a good reflection of a dysfunction on the demand as well as on the supply side of the forest market.

From Diagram 6:3 we can conclude that the Khabarovsk firms face a smaller shortage of wood than other Russian forest enterprises. In fact, this is in line with their Swedish counterparts. As a rule, the difficulties in obtaining wood in sufficient volumes are related to the limited solvency of the buyers (this is the case, for example, with the Khabarovsk furniture combine *Zarya*). Most suppliers do not consent to barter or

mutual offsets. Thus, it can be concluded that the main obstacle is not wood supply *per se*, but rather the lack of financial capital to acquire it.

The Output Side of the Enterprise

Almost all enterprises involved in trading are oriented towards the forest market of the Asia-Pacific Region (APR) countries, primarily the Japanese and Korean markets. Khabarovsk is known as an important exporter of goods. Accordingly, around 70 percent of the firms in our sample sell their products on export. This is significantly more than the other Russian firms in our data set and more than the Swedish fellow firms as shown in Diagram 6:4.²¹ Of the Khabarovsk firms 16 are engaged in export while 7 are not. This figure reflects the fact that the forest sector of the Krai could benefit from the nearness to markets making the whole sector relatively export oriented.

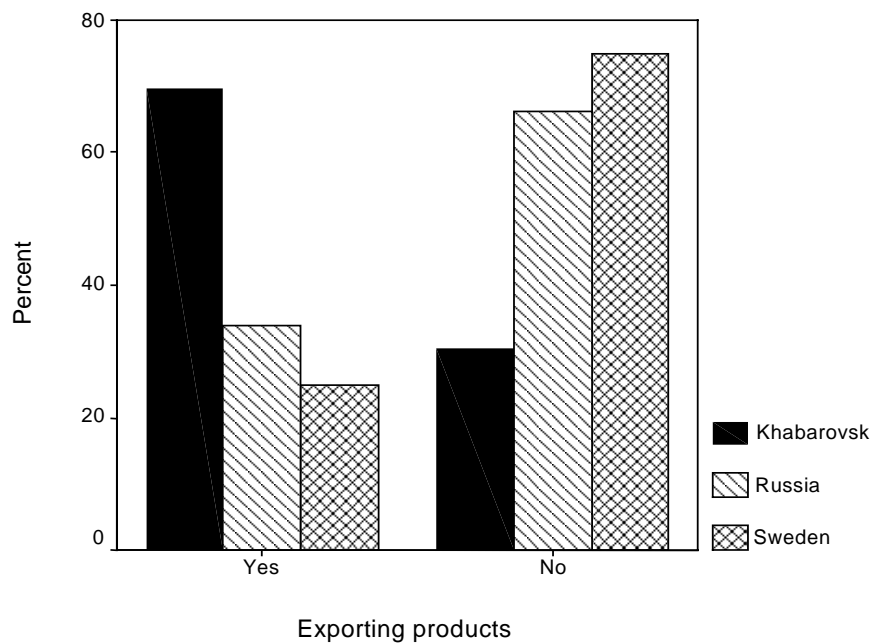


Diagram 6:4. Number of forest firms exporting their products.

Institutional Aspects

Respondents, i.e., enterprise managers or leading experts, had no problems identifying urgent problems as well as the causes of these problems. For example, to the question “What is the single most binding restriction on the activity of your enterprise?” they gave the following answers:

²¹ It should be emphasized that conclusions based on these kinds of comparisons must be made with great caution. For example, although it is valid to conclude that among the 25 Khabarovsk firms that we have in our sample 64% export wooden products, this figure is compared with enterprises which might have quite different characteristics. As has been emphasized, the Khabarovsk firms are mostly small and new and many might be labeled traders.

- Russian legislation, primarily taxes (11);²²
- Financial system (lack of money, high bank interest, financial crisis, etc.) (6);
- State and regional policy (5).

In addition, respondents also attributed their problems to the absence of efficient machinery, high custom fees for imported technology (3); as well as the decrease of production volumes (2) and the low business culture in Russia (1). Thus, as can be seen from Diagram 6:5, that taxes are regarded as the most binding restriction followed by a couple of other related issues while “finding a market” is not mentioned at all. Apparently, we have the paradoxical situation that firms can easily identify markets, they have no problems to acquire wood but they cannot benefit from these circumstances in a commercial manner.

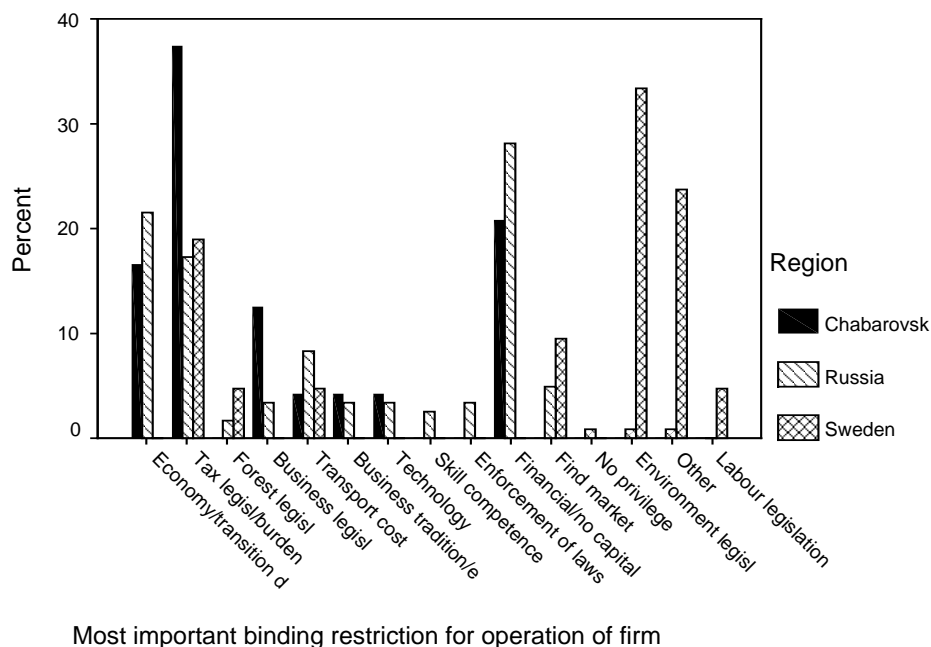


Diagram 6:5. Most binding restriction for running firms.²³

²² These questions were answered before the Russian Government issued a decision to decrease the tax burden of enterprises.

²³ It should be noted that all respondents involved in our interviews showed hesitation and in some cases were cautious in their answers requiring specific and detailed information about the enterprise’s activities, which is understandable and reasonable. This is why it was impossible, in most cases, to get any documents from the respondents confirming the truth of their answers. However, for some enterprises it has been possible to compare certain answers given with data from other sources. Small differences in the information given by the respondents were discovered when comparing with this data, but the discrepancies are not of any principal significance and cannot influence the results of the survey. There are two factors that influence the reliability of the information and the readiness to collaborate in a survey like this. The first is the high social tension in the Krai, the second is the proclaimed right of businessmen to keep commercial secrets. Therefore, many choose not to disclose any information. More than 10 enterprises originally selected for this study completely refused to answer the questionnaire. This is a very typical reaction under the current circumstances.

To the question “What would you like to change in the Russian forest sector?” the 18 respondents who answered the question suggested the following:

- To reduce taxes and to decrease the number of taxes (8);
- To expand domestic markets for forest products and to develop domestic production and processing units (6);
- To observe timber harvesting technologies and rules of forest management (5);
- To solve problems of insolvency and the credit system (3);
- To reduce customs fees, railway tariffs and to cancel VAT on equipment (3);
- To introduce the institution of timber exporters (2);
- To transfer property rights for forest resources to the Krai Administration (1);
- To prohibit forest logging (1);
- No change is needed (1).

Payment, Banking and Social Responsibility

As has been mentioned in previous sections, non-monetary transactions, such as barter, the use of money surrogates (*veksel'*), and offsets (*zachety*) has become more common during the last five years (cf. Aukutsionek, 1998; Commander and Mumssen, 1998). The absence of well developed regular domestic markets for wood has left the cash economy relatively small. This fact is also reflected in a poor interaction between enterprises and the banking system, but also in the existence of the numerous social responsibilities that are commonly connected to enterprise ownership. The cashless side of this is that provision of certain services, such as housing or child care, could be set off against tax arrears, provision of consumer goods against wage debts, etc. However, among the Khabarovsk firms in our data set only a few provide these kinds of social services.

In the questionnaire, the firms were asked explicitly about their relations to the banking system. It should be noted that only around 8 percent of the Khabarovsk firms have any relations to the banking system, compared to Sweden, where almost 80 percent of the firms employ bank services related to loans, etc. The majority of the Khabarovsk enterprises attributed their lack of relations to security and trust problems. Only 16 percent of the interviewed firms having no contacts with banks, said that the reason was that they had no need of such relations.

Around 50 percent of the forest firms, whether they are from Khabarovsk or from the other Russian regions, sell their wood through barter. Since we do not have data about other forms of non-monetary transactions it is probably fairly safe to assume that the cashless economy in reality affects more than 50 percent of all forest firms. This is also in line with data from others studies (cf. Aukutsionek, 1998).

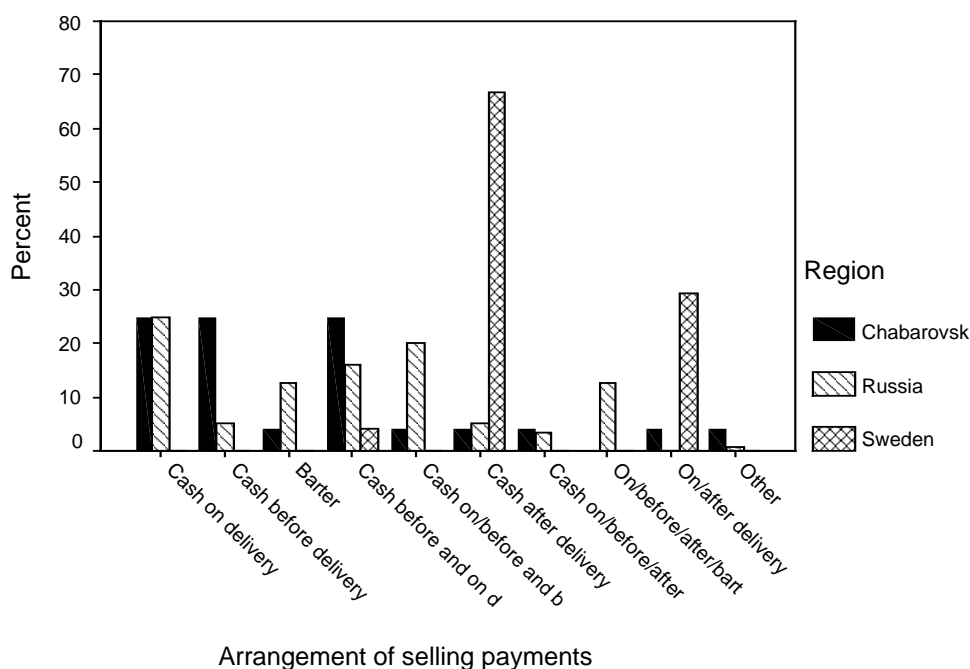


Diagram 6:6. Arrangement of selling agreement among Khabarovsk forest firms.

While the majority of the Swedish firms practice a rule that wood should be paid within 30 days from delivery the payment practice in Khabarovsk is dictated by a need to get paid before, or in direct connection to, the delivery of goods (Diagram 6:6.). Twenty-five percent of the firms require their customers to pay before they deliver any goods, while another 25 percent practice payment upon delivery.²⁴ Very few firms accept payments *after* the goods have been delivered. The obvious implication for the prospects of moving towards a market economy is that such a change is hard to accomplish if most actors feel that they have to secure themselves via the described payment practices. As an obvious result trade is halted before it can even begin.

Trust in Business Relations

Trust is important for the development of business relations (Huemer, 1998). In a number of studies the general lack of trust in the Russian society has been scrutinized (cf. NRB; Rose, 1999; Fell, 1999). It has also been noticed that there are significant differences among the former east European socialist countries, Poland being one of the “best” and Russia among the “worst” (Raiser, 1997). How is this fact reflected in the behavior of the Khabarovsk forest firms?

First, the payment practice described above can be attributed to a general lack of trust in the system. Another feature is the lack of trust demonstrated as broken agreements in commercial relations. As can be seen in Diagram 6:7, eighteen of the Khabarovsk firms (72%) have problems with broken agreements, typically payment, when they sell their

²⁴ Note that seven of the 31 firms practice a combination of these two systems, depending on the anticipated reliability of the customer.

products; 14 firms regard this as a big problem. This seems to be in line with the situation in other Russian regions, but in comparison with the Swedish firms, the amount of broken agreements is startling.

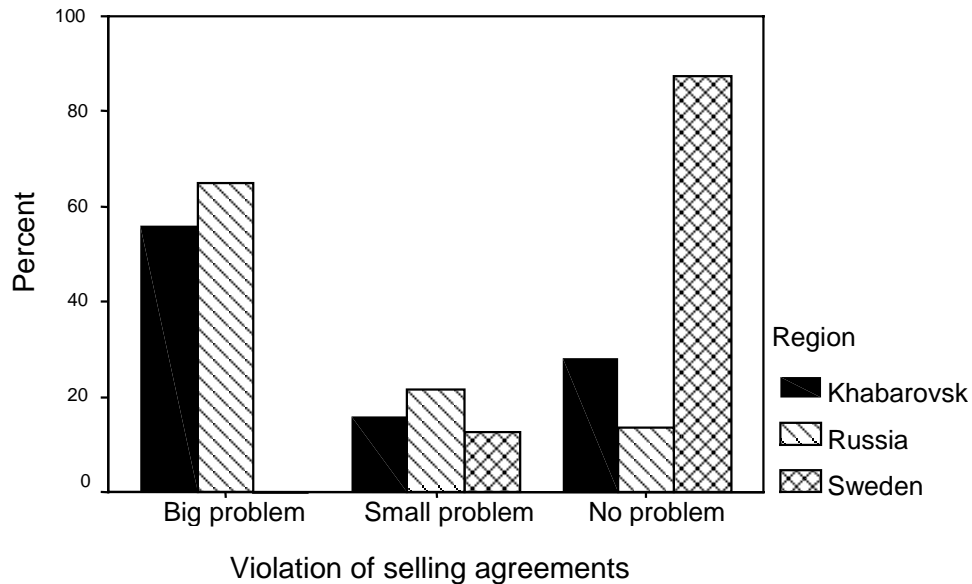


Diagram 6:7. Number of forest firms regarding broken agreements as a problem.

It is also apparent that few legal ways exist of settling conflicts concerning these types of problems. Negotiation seems to be the most common solution (25%). Another 25 percent of the firms answered that they simply stopped doing business with the unreliable firms, 10 percent of the firms gave the laconic answer that “nothing happens”. As expected, none of the interviewed firms indicated that there might be “non-formal” ways of handling problems with non-payment.

One obvious conclusion that is also supported in previous chapters is that the problems of the forest sector are mixed and intertwined. No single change could solve the problems, as perceived by business leaders, managers, and others. For example, one of the main reasons for the poor contacts with the banking system is that the asset value of the forest firms is simply too low to serve as security for loans, something that affects investments which, in turn, delays the restructuring of the firms, etc. This is discussed more thoroughly in the concluding chapter. Finally, it is also obvious that some of the business leaders (but probably only a minority of them), who supposedly would be the forerunners towards a market economy, still wish they were operating under the old system.

Summary

The result of the interviews with the Khabarovsk forest firms are summarized below. It should be remembered, however, that all comparisons and statements made refer to the interviewed enterprises, which cannot be regarded an unbiased statistical sample.

- During the last five years production in the Khabarovsk forest firms has dropped significantly more than employment. This indicates that productivity should still be treated as an urgent issue.
- Only a minor part of the firms invest. Joint ventures with foreign owners raise the likelihood of investment.
- Most firm have poor contacts with the banking system. Investments, for example, are rarely financed with bank loans.
- Only a minor part of the firms experience a shortage of wood.
- Compared to other Russian forest enterprises, the Khabarovsk firms more often export their goods.
- Compared to Swedish forest firms the lack of reliability, in terms of broken agreements, in sales transactions is striking. This provides the source of a deadlock in trade, demonstrated by the fact that “all” parties want to be paid in advance.
- The problem of finding markets is perceived as a minor problem in comparison with more urgent issues, such as the financial situation and the taxation system.
- The majority of the firms suggest that the most urgent tasks to be handled is to change the taxation system and provide better opportunities to get bank credits.

7. Conclusion and Recommendations

Most of the issues discussed in this report are based on official and open information. However, anyone examining the current real economy, in particular the forest sector, will soon become aware that alongside the official activity a huge shadow economy exists. In fact, according to official estimates (Goskomstat, 1997), the shadow activities make up 40 percent of the total activity in the sector. (According to several other competent, but unofficial, estimates this share is rather 60–70%.) It is impossible to get exact information about the forest sector and therefore a complete and realistic picture of the situation in the sector, its activities and management, is currently impossible to obtain. It should be noted that it is precisely in this shadow sector that one quite often finds management links substituting for “gaps” in the official management structures.

The basic question to be answered in this concluding chapter is to what extent the forest sector of Khabarovsk Krai has moved towards a market economy. A number of rather general criteria will be used for the assessment (cf. Carlsson and Olsson, 1998:1–6; Carlsson *et al.*, 1999:1–6):

- Constitutional rules are acknowledged and transparent.
- The structure of property rights is settled, i.e., private actors can acquire property or at least get the right to utilize property for their own benefit.
- Rules and regulations from official authorities are regarded as legitimate and apply equally to similar actors.
- The market decides prices of property and goods.
- Decision-making regarding collective choice and operational rules is decentralized.

- Private investors can realize the returns on their investments.
- Rules are enacted aimed at preventing the devastation of natural resources.
- Legitimate authorities take measures against violations of rules.

It should be evident from the discussion in previous chapters that these criteria are not entirely fulfilled. The forest sector might have been affected by the sweeping changes of the dismantling of the Soviet state, the radical privatization is one example, but there still remains a significant distance to travel before the behavior of all actors in the sector has been adapted to the principles of the market economy.

The advantage of the forest sector in Khabarovsk Krai, compared to other Russian regions, is that it functions in a relatively stable regional political situation. There are no extremist political parties and groupings active in the Krai. The most organized and loudly heard party is the regional division of the Communist Party of the Russian Federation (CPRF). In the last elections (in 1996) the communists managed to get 10 of the 25 seats in the Krai Legislative Duma, but this did not leave them in a position to dictate their will. Thus, the political situation in the region is characterized by a real pluralism, a “conservative” democracy and a moderate and reasonable administration.

So far, there have not occurred any larger political or economic scandals, and no radical “green” movement. Even the financial crisis of August 1998 only caused the bankruptcy of “Incombank” branches. All regional banks, as well as the branches of Moscow banks, managed to hold out.

The regional forest sector is beset with all the illnesses of the Russian economy. There was a sharp recession in production, a growing inefficiency, an increase of unemployment, an aggravation of social problems in forest villages, a deterioration of the environmental situation in areas of forest exploitation, a violation of forest use regulations, an uncontrolled waste of forest resources, prices swindles (also in timber exports), etc.

There is no solid proof that managers in the forest sector have enriched themselves, although few people doubt it. At the same time people working directly in the forests are getting poorer. It is also certain that means are unofficially redistributed between various levels and groups of directors and the sector managers. From this point of view, personal and public interests in the strengthening of sector management coincide. This is why work has started with the aim of forming financial-industrial groups, which would unite the main enterprises of the Krai forest sector and would introduce efficient management. Unfortunately, this reorganization has been initiated from above and it is not being implemented from below.

Since the current illnesses of the Khabarovsk forest sector are part of the common illnesses of the entire Russian society and economy, a total sanitation of the political, legal and economic situation is required. Individual measures at the regional level to improve the management structure are not enough to cure the disease. In this perspective, what can be done then at the regional level? We suggest the following general measures:

- General goals for the integrated development of the forest sector should be elaborated. (The current management in business and local administrations lack perspective and does not take future development options into account.)
- The local level activity of the Forest Service should concentrate on fire control and fire prevention. To think that reforestation and forest management can be successful without first solving the fire problem is futile.
- Wood processing using low-quality inputs (compared to current practices) should be restored and developed. This can be done by establishing and supporting enterprises using secondary resources and waste. The degree of use of the forest raw materials should be increased with the aim to eventually reach 80–90 percent of harvested volumes. It should be recognized that such a further development of wood processing may be a key factor for solving the problems pertaining to a sustainable (i.e., both economically and environmentally rational) forest use. This may in fact change currently used technologies for forest raw materials extraction.
- The concentration on currently used harvesting and processing technology should be abandoned in favor of contemporary, highly automatized and environmentally friendly equipment.
- State authorities at the federal as well as the regional level should actively support the transformation of the forest sector as expressed in the above mentioned general goals and on the regional level they should support the economically and socially most significant proposals for improved forest use. Such support could be given in various forms: a) reinvesting a sizeable share of the forest income (including forest taxes collected by the state) in the modernization of the regional forest use system; b) granting of direct (subsidies and favorable credits) and indirect privileges (such as tax and customs privileges, including reduced stumpage fees) to the enterprise sector; c) establishing a regional financial system, preferably in the form of specialized banks, which might provide loans to forest management units (*leskhozy*) and forest harvesting and processing enterprises. Experiences of the use of such systems abroad (e.g., in Japan and Canada) might be useful in the implementation of these ideas.
- The regional forest sector must strive for higher competitiveness in the world market, but first of all in the north-east Asian (NEA) market. A strategic plan for the Khabarovsk forest sector cannot be implemented without close cooperation with the NEA countries.
- A strong effort should be made to improve and develop the legislation guiding and restricting the regional forest resource use.
- Open competition (auctions, tenders, etc.) should be exclusively used for forest resource allocation in Khabarovsk Krai.
- The authorities should strive to establish minimal prices (stumpage fees) based on the market value of the regional forest resources. This would transform the currently used stumpage fees from being a fiscal measure (these fees are actually a tax on the forest resource) into an economic “indicator” established through the market and with a capacity to guide a rational forest use. (The use of administratively set minimal forest prices always provides the authorities with an economic-political lever that might be used to influence the performance of the actors in the market. In

this case, however, it would not be a lever for fiscal policy but rather for business cycle policy. It might also serve other policy areas, like environmental policy.)

- A preferential regime (in terms of legislation and finance) should be created in Khabarovsk Krai in order to stimulate environmentally sound investments in the regional forest sector.
- A mechanism for enforcing the introduction and use of environmentally and technologically rational methods of forest utilization should be developed. This might be achieved through the use of:
 - correctly determined prices for the use of forest resources, accounting for the interests of both the owner and users of the resource;.
 - mandatory and voluntary certification of forest products and services; and
 - continuous comprehensive assessments (*ekspertiza*) of forest resource utilization.
- A better and more comprehensive information about the regional forest resources and forest sector production should be developed. This might be done through the establishment of a continuous monitoring using modern scientific methods. Today, this is a severely neglected area. Restructuring of the existing monitoring system will be very resource consuming, but without having access to such information, it is simply not possible to shift current forest use patterns on to a more efficient development trajectory.
- In order to solve the explicit and implicit problems indicated above it is decisive to have the ideological, legal, organizational, and financial support of federal and regional legislative assemblies and administrations. The elaboration of long term programs of a sustainable forest use should initiate this process of restructuring. However, program elaboration is not enough. To ensure the success of such a process requires the purposeful, persevering and transparent activity at all levels of society, from the federal center to individual NGOs, in their intelligent operations to achieve transition to a sustainable development of the forest sector.
- In this perspective, the overarching task of the public authorities in Khabarovsk should be to minimize or eliminate political risks in order to achieve economic growth. Politicians and related officials should promote institutional stability and, thus, transparency of rules, which will subsequently increase predictability.
- The authorities should pay great attention to the task of making regulations more simple and contradictions between various rules should, if possible, be eliminated.
- Together with other actors regional authorities should develop programs in order to stop the deterioration of education and to increase management competence in the forest sector.
- Activities of independent actors should be encouraged and supported, thereby counteracting a further bureaucratization of the forest sector. For example, programs deliberately aimed at stimulating the establishment and development of small and medium sized enterprises should be constructed, provision of economic guarantees should be considered as well as economic support of entrepreneurship.

- All concerned parties should try to find economic support for deliberate programs aimed at renovating apartment houses, repairing public buildings, roads, and other infrastructure facilities. As a side effect this might increase the regional demand of forest products.
- More emphasis should be paid to develop the export sector, for example, by widening the current range of products. Political authorities as well as the authority of the police should be used to secure that exporting firms have the possibility to reinvest the income of their export thereby making their production more efficient. Export firms have no incentive to generate money that in the end will end up in a draconian tax system or in the hands of organized crime.

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Appendices

Appendix 6:1 Questionnaire Used in the Interviews with the Russian Forest Sector Enterprises

Interview no.

Interview conducted by:

Date:

Name and address of enterprise:

Respondent:

SECTION A: GENERAL DESCRIPTION OF THE ENTERPRISE

1. Name of the enterprise?

2. What year was the enterprise established?

3. Give a short description of the enterprise.

4. Type of enterprise?

Forest owner/possessor/forest service

Harvesting enterprise

Processing industry

Consultant

Other type, describe

5. What are your main products?

Today:

One year ago:

5 years ago:

10 years ago:

6. What is the actual production volume of the enterprise?

Today:

One year ago:

5 years ago:

10 years ago:

7. Who is the legal owner of this enterprise?

The state, specify:

Private person/persons, namely:

The enterprise is a corporation

owned by other companies, namely:

Other, namely:

8. Number of employees? (Counted as full time personnel)

- Workers, today:
- Workers, 5 years ago:
- Workers, 10 years ago:
- Administration, now:
- Administration, 5 years ago:
- Administration, 10 years ago:

9. Do you have any engagements and responsibilities related to activities other than “production”?

- Housing:
- Provision of consumer goods:
- Schools:
- Health care:
- Child care:
- Other:

10. Do you currently make any investments in your enterprise?

- No
- Yes, describe content and scale

11. How are your relations to the “banking system” — can you borrow money, from whom and on what terms? Describe:

SECTION B: INPUT SIDE OF THE ENTERPRISE

12. From whom do you acquire timber/wood?

- Provider: _____ % of total volume:
- Provider 1:
- Provider 2:
- etc.

13. On what terms is the timber/wood normally acquired?

FOR CONSULTACY FIRMS:

12 b. From whom do you get your orders/tasks/assignments?

- Client: _____ % of total volume:
- Client 1:
- Client 2:
- etc.

13b. On what terms do you get your orders/tasks/assignments? Describe:

14. Do you have any alternative supplier(s)?

- Yes
- No

15. Can you acquire a sufficient amount?

Yes

No, what is the explanation?

16. How is the timber/wood paid for?

Payment upon delivery:

Payment before delivery:

Other arrangement, namely:

17. How are payments arranged?

Via bank; name of bank:

Payments are done by the enterprise itself:

Other construction, namely:

18. What will happen if either part breaks the agreement or does not fulfill its duties?

19. Do you regard violations of agreements as a problem?

Yes, a big problem

Yes, but a small problem

Not really a problem

20. Describe how a typical purchase transaction is performed.

SECTION C: OUTPUT SIDE OF THE ENTERPRISE

21. To whom do you sell your 'products'? Name and type of customers in order of importance (as a percentage of total volume), name all.

Customer: _____ % of total volume:

Customer 1:

Type:

Customer 2:

Type:

etc.

22. Can you describe how a typical sales transaction is performed?

**23. What will happen if either part breaks the agreement or does not fulfill its duties?
Describe**

24. Do you regard violations of agreements as a problem?

Yes, a big problem

Yes, but a small problem

Not really a problem

25. How do you get paid for your products?

Cash or equivalent upon delivery

Cash or equivalent paid before delivery

Other arrangement, namely:

26. How are payments arranged?

Via bank; name of this bank:

Payments are done by the enterprise itself

Other construction, namely:

SECTION D: INSTITUTIONAL ASPECTS

27. Is this enterprise a member of any branch organization or equivalent?

No

Yes, namely:

What are the arguments for this construction?

28. Are there rules or regulations that apply to your enterprise which you regard as an obstacle for your activities?

No

Yes, describe:

29. Are there other problems which you regard as obstacles for a successful business?

Describe

No, only minor:

machinery/technology:

equipment/supply/maintenance:

personnel/skill/competence:

other:

30. What is the single most binding “restriction” on the activity of your enterprise?

Describe

31. Generally speaking, do you find the formal legislation regulating Russian forest enterprises adequate and efficient?

Yes

No, explain why.

32. If it would be possible to change anything related to the Russian forest sector, what would you change?

33. Other comments of relevance?

**Appendix 6:2 Status of Forest Resource Use in the Forest Sector
Enterprises of Khabarovsk Krai, 1998**

Enterprise	AAC: total/allocated for 1998, thousand cubic meters	Factual Annual Harvesting, thousand cubic meters		Debts for budgets of all levels, thousand rubles
		1997	1998	
<i>Verkhnebureinskiy raion</i>				
“Urgalservis”	8	5	0	113
“Agidel”	30/18	6	5	11
“Urgal”	27/15	3	5	545
“Bonitet”	16	13	2,1	0
“Fobos”	28	5.3	10	2 732
“Suluk’	90	90	90	7
<i>Solnechniy raion</i>				
Evoronskiy complex forest industry enterprise	200	191	173.1	4 512
“Sonakh”	60	40.5	4	10 864
“Amgun”	44	60.7	56	688
“Arka-les”	20/5	-	6.2	77
Gorinskiy complex forest industry enterprise	200/185	148.6	151.4	3 506
“Rimbunan Hijau DV”	110	-	-	19
<i>Komsomolskiy raion</i>				
Komsomolskiy complex forest industry enterprise	120/55	27	96.2	1 766
Nijnetambovskiy wood processing combine	8	5	1	236
“Skimen-les”	32	19	20	66
“Yasen”	37	24	26.5	1089
“Fenix”	...	0.9	0	552
“Vizir”	153	23	44.8	978
Fishery collective farm “Rassvet”	3	0.2	0.7	426

<i>Nikolaevskiy raion</i>				
“Nikolaevsk-les”	92	61.6	61.5	7 256
Nikolaevskiy wood processing combine	15	13	13	636
Nikolaevskoe repair and construction directorate	5	0	1.5	2 595
<i>Khabarovskiy raion</i>				
Ulikanskiy complex forest industry enterprise	150/60	49	50.5	6 728
“Magdusa”	25	11	20	615
“Rogoz”	Short-term use	0.2	0	0
“Kur-Urmiisky complex forest industry enterprise”	Short-term use	14.1	1	3 333
Logging camp “Kukan”	Short-term use	3.7	1	1 113
<i>Bikinskiy raion</i>				
Wood processing combine # 9 “Dalspecstroy”	6	1	0.7	15 151
Bikinskiy wood processing combine	5	2.6	2.7	2 216
“Aksa”	Short-term use	0.5	1	-2.1
<i>Viazemskiy raion</i>				
Viazemskiy forest industry enterprise	155	99.6	72.7	10 853
Pozharskiy leskhoz (Primorskiy krai)	89	58	39.9	-
Viazemskiy wood processing combine	Short-term use	0.9	0.74	3 061
“Tis”	5	0.78	1.3	0
“Kolos”	0.5	0.5	0.5	670
<i>Lazo raion</i>				
“VVV”	10	1.2	1.4	86
Viazemsky forest industry enterprise	28	19	23.5	6 533
“Modul”	3	4.3	5.9	0
“Horles”	128	71.3	46.8	7 077
“Sidiminskoe”	52/27	28.3	15	4 722
“Rimbunan Hijau DV”	550/40	-	-	-
“Bonitet”	15	2.4	0.9	175
“Vesna”	Short-term use	3.4	3	99
“Katen-Ko”	Short-term use	3.5	3.5	2