



International Institute for
Applied Systems Analysis
Schlossplatz 1
A-2361 Laxenburg, Austria

Tel: +43 2236 807 342
Fax: +43 2236 71313
E-mail: publications@iiasa.ac.at
Web: www.iiasa.ac.at

Interim Report

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**Participatory Forest Policy Development —
Experiences from a IIASA Policy Exercise
in Tomsk, Russia**

Mats-Olov Olsson (olsson@iiasa.ac.at)

Approved by

Sten Nilsson
Leader, Forestry Project

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Preface

Since the spring of 1997, the Forestry Project at IIASA has been engaged in a study called “Institutions and the Emergence of Markets — Transition in the Russian Forest Sector”. The IIASA research group has looked at problems related to the forest sector institutions in eight Russian regions. In order to share the results of the study with the people it most concerns, the people living in the case study regions and working in the regional forest sector, IIASA decided to return to Russia to present the study results and invite regional forest stakeholders to discuss the findings and initiate a process with the aim of generating recommendations for improving the regional forest policy. The *policy exercise* was chosen as the tool for achieving these goals.

This report describes the first of these policy exercises organized by IIASA’s study of Russian forest sector institutions. The exercise, which took place in the Tomsk region in June 2000, was a pilot case through which the policy exercise tool was tested. The exercise was subsequently, during the autumn of 2000 and into the spring of 2001, followed by similar events in Murmansk, Karelia, and Arkhangelsk. These three exercises will be the subject of a forthcoming separate report.

The present report should be possible to read independently of earlier published reports from the study. It provides a summary of the findings previously reported in the case study of the Tomsk region forest sector institutions. (All published reports from the study are listed in Appendix 1.) It is hoped that the report will be of interest to researchers and politicians engaged in the planning of similar participatory policy development initiatives in Russia or elsewhere in the world.

Finally, on behalf of Sten Nilsson, Leader of IIASA’s Forestry Project, I would like to express our gratitude to Dr. Alexander Sulakshin and Mrs. Olga Cherkashina for their contribution to our previous study of the institutional problems in the Tomsk forest sector and to Professor Vladislav Vorob’ev for his significant contribution to the policy exercise reported in this publication.

About the Author

Mats-Olov Olsson has been a research scholar in IIASA's Forestry Project since the spring of 1997. Together with a colleague from Sweden, Lars Carlsson, he has been engaged in the study "Institutions and the Emergence of Markets — Transition in the Russian Forest Sector." Since July 2000, Mr. Olsson works part-time at IIASA, the remaining time he is back as a research scholar in his home institute, the Centre for Regional Science at Umeå University, Sweden.

Participatory Forest Policy Development — Experiences from a IIASA Policy Exercise in Tomsk, Russia

Mats-Olov Olsson

1 General Background

1.1 IIASA's Forestry Project and the Study of Institutional Deadlocks in the Russian Forest Sector

For several years the Forestry Project at IIASA¹ has been engaged in a study called *Institutions and the Emergence of Markets — Transition in the Russian Forest Sector*. In this study the forest sector development of eight Russian regions has been analyzed with special focus on the institutions embedding the sector. Institutions should be seen as “rules-in-use” (formal and informal); rules that in one way or another constrain the choices available to the actors in the sector. Today, it is commonly acknowledged that the most important prerequisite for positive development in the Russian forest sector (and in the Russian economy in general) is a change in the institutional framework to make it more suited to the requirements of a modern market economy.

The IIASA study of the forest sector in eight Russian regions (Murmansk, Arkhangelsk, Karelia, Moscow, Tomsk, Krasnoyarsk, Irkutsk, and Khabarovsk) has tried to identify the most serious institutional shortcomings preventing the development of an efficient market system. A small team of researchers at IIASA² has focused on the organizational development as well as the behavior of the forest enterprises in the respective eight regions. Interviews have been conducted with about 25–35 enterprise managers in each

¹ Information about IIASA and its Forestry Project can be obtained from the institute's web site at URL: <http://www.iiasa.ac.at>.

² The IIASA in-house research team working on the study of the Russian forest sector institutions consisted of four people. Lars Carlsson (Luleå University of Technology, Sweden) worked full-time in the project between September 1997 and June 1998. He then worked part-time (50%) until the end of 2000. Nils-Gustav Lundgren (Luleå University of Technology, Sweden) spent about three months working for the project during various visits to IIASA during 1997–2000. Mats-Olov Olsson (Umeå University, Sweden) worked full-time for the project at IIASA between April 1997 and June 2000, and then continued his work at IIASA on a part-time (50%) basis. Soili Nysten-Haarala (University of Lapland, Rovaniemi, Finland) worked full-time at IIASA between January and July 2000 focusing on legal aspects of the transition in the Russian forest sector. Between August and December 2000 she was affiliated with the project on a part-time basis.

of the regions. The results of the study, containing a number of policy recommendations, have been published in a series of IIASA Interim Reports.³

The case studies performed in the project used the Institutional and Development (IAD) framework that was elaborated over many years by Elinor Ostrom and her colleagues at Indiana University, Bloomington, USA (see, e.g., Ostrom *et al.*, 1994; Ostrom, 1995).

The focus of our investigation, informed by the IAD framework, was on so-called action arenas (cf. Figure 1). Such arenas are constituted by actors and the interaction among these actors in dealing with the procurement and use of a specific natural resource, commodity, or service. However, the IAD framework also insists on the importance of the embedding of this action arena, on features in the environment conditioning or constraining the behavior of the actors in the arena. Such features include the physical characteristics of the resource, the commodity or service in question, the attributes of the community and the “rules-in-use” or the institutions governing the behavior of the actors. What emerges on the action arena is a specific pattern of interaction entailing certain outcomes. These outcomes are then evaluated according to some criteria. One can presumably look upon this framework as a stylized model of an actual interaction situation, in which case the evaluation is “automatically” made by the actors in the system themselves. But one can also look upon it as a description of a study design (and this was actually the way it was used in the IIASA study), in which case the evaluation is performed by some outside analyst studying the system in question.

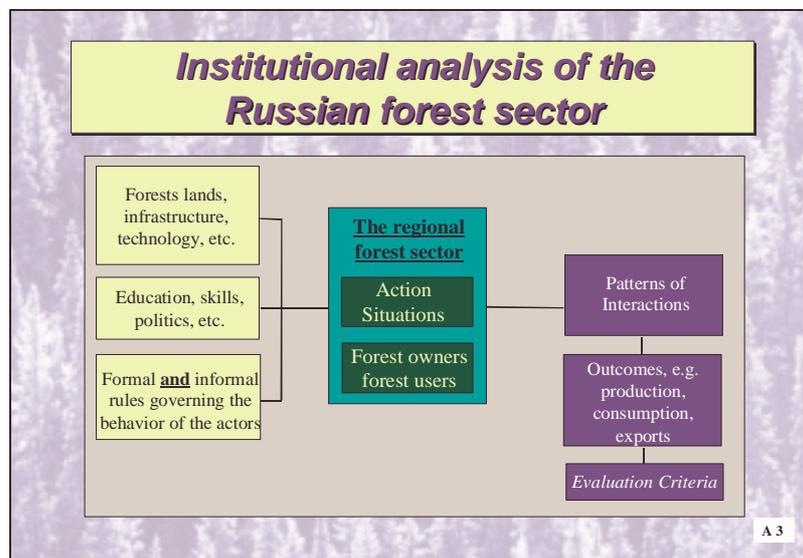


Figure 1: The Institutional Analysis and Development (IAD) framework used in the case studies of institutional embedding of the regional Russian forest sector (after Ostrom *et al.*, 1994:37).

³ A full listing of the reports produced by the study can be found in Appendix 1. The reports can be downloaded from the project’s web site at URL: <http://www.iiasa.ac.at/FOR>.

In the IIASA study, like in many other recent studies of the Russian economy and society, we found that the interaction in the new Russian, as opposed to the old Soviet, forest sector still, after ten years of transition, exhibits many puzzling features (see Figure 2).

Data on the conditions restricting the behavior of the actors in the system (the boxes to the left in Figure. 1) were collected with the help of local Russian study coordinators. The data consisted of public statistical information, existing forest sector plans and reports, etc. The actors' behavior on the action arena was captured through interviews with representatives of some 25–35 forest sector enterprises in each of the eight regions in the study. All this information was analyzed and the results have been published in a series of IIASA Interim Reports.⁴ Observing the actual behavior of forest firms and noting the opinions of their managers allowed a comparison with a number of “baseline” criteria characterizing the “normal” situation in a market economy. In this way it was possible to assess to what extent the firms in the eight regions that were studied behaved in a manner that is typical in a market economy environment. An overview of the evaluation criteria and the observed behavior of the Russian forest firms in our sample is shown in Figure 3.⁵

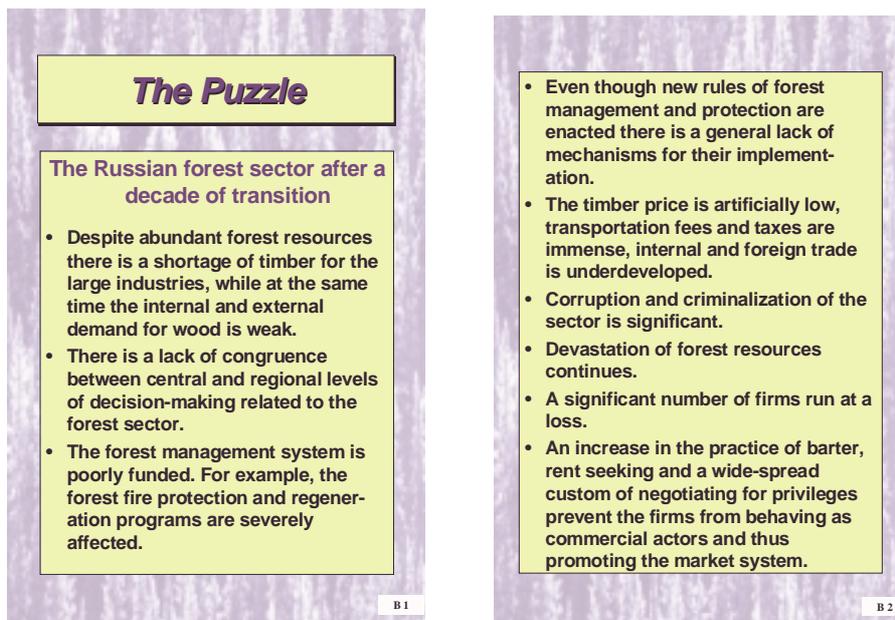


Figure 2: Prevailing puzzling features in the Russian forest sector.

⁴ The case study reports (cf. IR-98-084, IR-99-010, IR-99-021, IR-99-068, IR-99-069, IR-99-070, IR-99-071, IR-00-017, IR-00-028 listed in Appendix 1) all contain chapters in which the results of this analysis are discussed.

⁵ A general overview of the results of the IIASA case studies in the eight Russian regions has been published elsewhere (see Carlsson *et al.*, 2001).

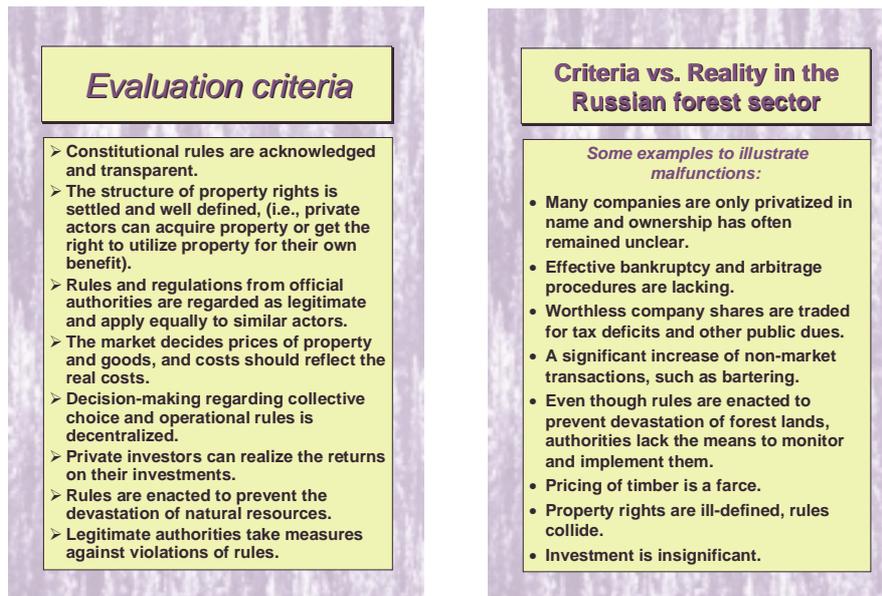


Figure 3: Evaluation criteria and actual behavior of Russian forest enterprises.

The analyses of the situation in the various regions were rounded off with a number of conclusions about the current situation and recommendations on how to achieve changes that would make the forest sector function in a more market efficient way. Not unexpectedly, it was found that a large number of functional deficiencies among the forest enterprises were dependent on problems at various levels in society. Some problems typically belong to the constitutional level (e.g., ambiguities concerning property rights, contradictions between the constitution and the forest code, etc.), some problems must be handled on the collective choice level (e.g., taxation reforms, improved bankruptcy legislation, policy programs should be elaborated, entrepreneurship should be encouraged, education and training of personnel should be organized, etc.), while others could be attacked and solved by the actors in the forest sector themselves (these are problems at the operational choice level, such as improved product development, enterprise management should focus on economics rather than engineering, the education of the workforce should be improved, good market behavior rewarded, etc.).

1.2 IIASA's Case Study of the Institutional Framework of the Tomsk Forest Sector

1.2.1 Practicalities

The study of the institutional problems of the forest sector in Tomsk Oblast was the first in a series of eight studies that were conducted by the IIASA team during the period between May 1997 and August 2000. Thus, the Tomsk study became something of a pilot study through which important lessons were learned that significantly facilitated the subsequent seven studies. The Tomsk study, which operated on a comparatively low budget, was initiated during the summer of 1997. Interviews with representatives of

forest enterprises in the region were then conducted during the autumn of that year and into the summer of 1998. A first report of the results was published in IIASA's Interim Report series in October (Carlsson and Olsson, 1998). This report did not contain any analysis of the enterprise interviews. The coding of the interview data was done during the autumn and a separate report on the behavior of the Tomsk forest firms was finally published in March 1999 (Carlsson *et al.*, 1999). The methodology was continuously being elaborated as the study progressed. Through this learning process we became increasingly aware of and learned how to handle practical difficulties encountered in the process of collecting data for the study through regional study coordinators. Interviews for the study of the Arkhangelsk forest sector institutions were being made in the spring and into the autumn of 1998 while the Tomsk study was still underway. The lessons from the Tomsk study were, however, clearly brought to bear on the Arkhangelsk study, but also here we made new discoveries that forced us to contact our Tomsk coordinators again to obtain additional information. Thus, due to all these iterations the Tomsk study took longer time to perform than any of the subsequent studies in the series.

1.2.2 Study design and implementation

One member of the IIASA research team (Mats-Olov Olsson) visited Tomsk for a week in May 1997. During this visit, IIASA's plans for a study of the institutional embedding of the Tomsk forest sector were discussed with a number of representatives of the Tomsk regional administration and forest sector organizations. An employee of the Tomsk *Union of Forest Industrialists* was also recruited to serve as the project's local coordinator in charge of compiling and sending information to Austria. (In order to prepare for the data compilation the Tomsk local coordinator also visited IIASA for two weeks during the early summer of 1997.) Later the same year, the IIASA team (Lars Carlsson and Mats-Olov Olsson) made another visit to Tomsk, during which the questionnaire template to be used in the interviews with forest enterprise representatives was tested and further improved.

The intention of data compilation was to gather information about the behavior of the actors in the Tomsk wood procurement action arena. There was a general ambition in the study to "follow" the flow of the raw material from its origin in the forest to its destination as inputs in the timber processing and manufacturing industry (as illustrated in Figure 4).

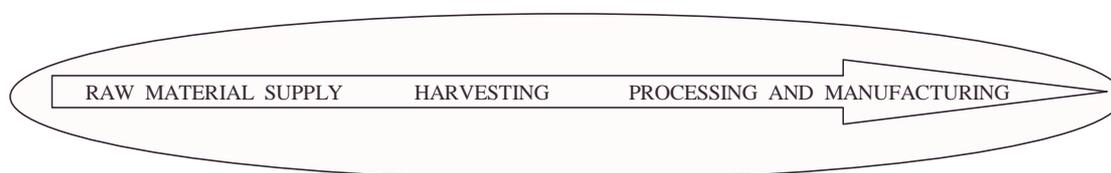


Figure 4: The action arena of the forest resource provision chain.

The actors identified in various stages of this procurement chain were the Regional Forest Management (the regional representation of the Russian Forest Service and regional forest management units, *leskhozy*), forest harvesting enterprises

(*lespromkhozny*), and various kinds of forest industries. Since this action arena is also influenced by the activities of public sector organizations, especially by the operation of the forest industry department in the regional administration, it was also necessary to learn something about the functioning of these units. Information about the public forest sector organizations was mainly compiled from public records and statistics according to a template designed by the IIASA team. Information about the behavior of the various actors in the Tomsk forest procurement arena was compiled through interviews with representatives of 26 forest enterprises in the region (both these templates can be found in an appendix to Carlsson *et al.*, 1999).

The selection of enterprises for the interviews was not altogether simple. Access to enterprise representatives who were willing to become respondents was not easily obtained. As it turned out our local study coordinator was not able (or willing due to time constraints) to do all the interviews we had originally agreed upon. By bringing in, at a rather late stage, an “assistant study coordinator” we eventually managed to obtain the intended number of interviews. However, this change of operation also meant that we obtained a slightly biased sample of the Tomsk forest enterprises represented in our interview study. The slant was towards new, small, forest harvesting and processing companies.⁶

The Tomsk study was slow in its implementation due to the many expected and unexpected obstacles hampering the smooth performance of everyone involved. These obstacles unfortunately meant that the Tomsk study lost some of its momentum, and expectations on the part of the forest stakeholders in Tomsk — if ever they had any — sank.

1.2.3 Pertinent results of the Tomsk case study

The Tomsk study, being the first in the series, was completed long before the data compilation for the remaining seven regions was finished. This limited the analysis of the data. No comparisons with the situation in other regions could be made. This is also clearly reflected in the results of the study that were eventually presented in the two IIASA Interim Reports already mentioned (Carlsson and Olsson, 1998; Carlsson *et al.*, 1999). Especially the analysis of the enterprise interview data suffered from this fact. Consequently, the results of the Tomsk study are significantly less specific and elaborated compared to what was possible to achieve in subsequent case studies.

As background to the report that follows the Tomsk policy exercise, which was organized by IIASA in June 2000, we will briefly reiterate some of the most important facts and findings in our Tomsk study. (For a more detailed picture the reader is referred to the Interim Reports mentioned above.)

⁶ The selection of enterprises for our interviews was never strictly randomized in any of the regions in our study. The study coordinator’s access to enterprise representatives was the decisive factor in selecting the companies for inclusion. However, strong efforts were always made to include a certain number of enterprises of different types (management, harvesting, processing, and manufacturing) in the sample. But it is important to note that this procedure does not allow any statistical inferences and the results of the our data analyses are, in principle, only valid for the group of enterprises included in the study.

Already in this first case study of the Russian regional forest sector, we clearly saw certain general tendencies that were further corroborated in later studies. These results have already been summarized in Figure 3. In the Tomsk case study report (cf. Section 5 in Carlsson and Olsson, 1998) we were able to identify a number of institutional problems and shortcomings in the regional forest sector.

Tomsk Oblast' was one of the "heavy" forest regions in the Soviet command economy. Huge volumes of wood were harvested from a resource base that seemed inexhaustible. As in many other Soviet regions, clear-cutting of large accessible areas was the standard mode of harvesting leading to an inheritance — a *legacy of overuse*⁷ — the negative consequences of which today's forest managers and industrialists are faced with and must overcome. In the command economy, overuse of natural resources was not a major item on the political agenda, even if various environmental organizations (cf. for example, Ziegler, 1987) had drawn increasing attention to the problem since the mid 1960s. The problem facing forest enterprise managers in those days was mainly how to make production output in their respective plants meet the required plan goals. The goals were mainly quantitative, and, since both input procurement and the realization (distribution) of outputs were (in principle) strictly governed by the plan — thus, in heavy industry no markets, in fact, existed as we understand the concept — enterprise managers had no incentives to find new customers for their products, to improve product quality or engage in product development. Consequently, Soviet enterprise managers were typically engineers rather than economists.

As exemplified by forest harvesting a number of problems, more or less closely related to this legacy of overuse, still hampering the functioning of the Tomsk forest sector today were identified in our study. While, for instance, most Tomsk forest industries had already been privatized the people managing the enterprises were basically the same people as those who had previously worked as directors in the state owned companies.⁸ Most forest sector "officials", i.e., leading forest managers, individuals working in the forest department of the regional administration, etc., were also coming directly from the old state governed forest sector administrations.

It is therefore hardly surprising that, when these actors tried to cope with the mounting problems facing the Tomsk forest sector, they would attempt to solve the problems in the same manner as they were accustomed in the old Soviet command economy. In this system there was an officially sanctioned "pretence" that everyone, irrespective of their position and role in the economy, had the same interests and were aiming towards the same goals. That this was hardly the case and that everyone knew so is another story. (This fact is actually of importance for the explanation of the shadow economy and corruption of today.)

Even if the emergence of the market system should have already made it clear to everyone that different actors in the forest procurement action arena have different immediate interests, what these managers and officials nevertheless found natural to do was to find solutions to the problems through the creation of joint (corporatist)

⁷ The term was coined in a World Bank position analysis from 1997 (World Bank, 1997).

⁸ Clearly, this situation has changed to some extent since our study was finished.

organizations, where all (traditional) forest stakeholders were expected to join. The ideal seemed to be to make everyone agree on a series of measures required in order to improve the situation for the Tomsk forest sector. What is forgotten in this scheme is the fact that by trying to unite all stakeholders the only things about which total agreement could actually be reached were largely empty “slogans” on future production targets and expressions of various needs that must be satisfied in order to improve the competitiveness in the sector. No real commitments to implement this “wishful thinking” could be reliably made, since no one was in a position to actually do anything about it. Most of these activities simply led to and remained words on paper. This was, for instance, the fate of the Tomsk forest program (Tomsk Oblast, 1997) mainly developed by members of the Tomsk *Union of Forest Industrialists*, an organization that was (and still is, even if its status and function has changed) exactly the kind of corporatist forum for joint actions by the traditional forest stakeholders in Tomsk. In reality, most of the union’s activities were performed by its “secretariat” composed of former bureaucrats in the state forest sector establishment.

Another inheritance from Soviet times creating significant problems today is the structure of the forest industry. For instance, in Tomsk there were never any pulp and paper factories. The region mainly had harvesting, some sawmilling and some further processing plants (like the Tomsk pencil factory, based on the availability of Siberian cedar wood). Thus, the region was mainly a raw material provider for industries in other parts of the Soviet Union, to which the wood products were hauled on railroads over very long distances. (Long transport distances were not considered an obstacle in Soviet times. Transport work was considered “productive”, and simply contributed to the value of the products.) The regional specialization that emerged in the country due to its command economy left some regions with a monocultural economy, which creates serious obstacles for the transition to a modern market system that is officially aimed for today.

For example, in Tomsk, 12 of 16 municipalities are entirely dependent on only one wood processing factory or harvesting company for their existence. Many of these monocultural towns and settlements are situated far away from the regional capital and the production of the single “community forming” enterprise is often unprofitable. If the unrestrained market would be allowed to manifest itself such companies would immediately become bankrupt causing a major social disaster in the communities in which they are located. In this context, one must remember that public services, like employment relocation agencies, etc., that would facilitate structural changes in the economy are still virtually lacking in Russia. Obviously, there is a great need for long-term restructuring programs to improve the situation in these settlements.

One should perhaps see the emergence of the so-called *virtual economy* as an answer to society’s needs to avoid the major social problem that would arise if too many companies were closed down in a short time because they could not meet the efficiency demands of the market.⁹ The virtual economy allows enterprises to “insulate”

⁹ There is rapidly growing literature on the *virtual economy* notion. The concept was first used by a Russian government committee and subsequently picked up and elaborated by two American scholars, Clifford Gaddy and Barry W. Ickes. See, e.g., Gaddy and Ickes, 1998a, b; 1999a, b; Phillips, 1999;

themselves from market competition through an intricate web of barter and negotiations. While the emergence of the virtual economy might have helped to avoid a social catastrophe, it has also meant that the misallocation of resources (resource waste) in the Russian economy has been allowed to continue. The system has provided some time for readjustment, but the question is if this leeway really is being used to attack the causes of the problem — if it really helps restructuring in the economy and in individual enterprises. This still remains to be seen.

The problem that must be solved, if the Russian economy is ever going to break out of the virtual economy, has to do with *incentives*. How can the incentive structure in society be changed to make actors choose to operate inside the emerging market economy rather than staying in the “primitivizing”¹⁰ virtual economy? This was actually one of our underlying questions in the Tomsk policy exercise and some suggestions on what is required to achieve this improved incentive structure was given at the end of the case study reports. (These recommendations are listed below.)

The level of education is a feature of the community (cf. Figure 1) that is of great importance for economic development. In Tomsk, where there are no less than six universities today, the general educational level in the population can be assumed to be relatively high. Through our interview study we know, however, that the regional forest enterprises call for educational reforms, there is especially a need for modern business management training and, on another level, training of competent personnel to operate modern harvesting and processing equipment. New forest education and training establishments have been created in the last few years, but their ability to attract young people is severely hampered by the very low wage level offered by enterprises in the regional forest sector. Qualified labor tends to go to other sectors in the economy offering better working conditions.

Several other features that together cause an “institutional deadlock” in the Tomsk forest sector were discussed in the case study reports. So, for instance, it was noticed that reminiscences of the Soviet forest industrial branch organization still exert influence on the forest management system, where old-fashioned and complicated rules for forest regeneration, management, harvesting, and forest leasing contribute to the low efficiency. The interview investigation showed that the actors in the Tomsk forest sector are aware that many problems hampering the workings of the sector — like the unstable and intransparent taxation rules, the high transport tariffs (especially railroad tariffs), and the general economic policy — really are manifestations of a deficient forest policy unable to disentangle the “institutional deadlock” caused by the interaction of factors like those listed.

Among the problems related to the organization of the Tomsk forest sector, it was specifically noted that the national cedar ban of 1989 — forbidding all harvesting of

Åslund, 1999; Ericson 1999; Slay, 1999; Chang, 1999; Woodruff, 1999; Gaddy *et al.*, 2000; Carlsson *et al.*, 2001.

¹⁰ Michael Ellman (2000) has characterized the structural change in the Russian economy (leading to the type of system that Gaddy and Ickes and others have labeled the “virtual economy”) as an “undesirable process of primitivization.”

cedar in forest stands with more than 25% of cedar — has led to a situation where there are huge areas of dead or dying cedar stands, while at the same time there are no secondary stands. The cedar ban, which was imposed on the region from the federal level, is an illustration of problems with an institutional framework unable to adjust to local circumstances.¹¹ Many actors mention the *lack of coordination* of the forest sector as crucial among the problems that have been created and might be possible to solve on the regional level. The Tomsk forest program (Tomsk Oblast, 1997:22) claims that the hasty and (practically) all-encompassing privatization that took place in the forest sector — a sector which is said to have been characterized by “state subsidized planned unprofitability” — resulted in a “loss of administrative management levers.” The privatization led to a situation where suddenly there was no organized coordination available to guide or direct individual companies like there used to be in the Soviet era. The *Union of Forest Industrialists* was established in 1995 in response to this “coordination void”.

In the newly changed, but in practice still highly centralized, forest sector we found (at the time of data collection, in 1997–1998) that severe “information barriers” existed between various organizational levels. To a large extent this information barrier was related to an educational deficit. Since modern communication technology (Internet) was becoming increasingly accessible for Russian enterprises by the mid 1990s, information was in principle available to anyone who knew what kind of information was required and for what purpose it should be used. But, still at the time, there were not many business leaders around who had the necessary competence to be able to make use of the vast amounts of information made available through Internet and international forest publications.

1.2.4 Recommendations made in the Tomsk case study

On the basis of the wide spectrum of problems that was discussed in the Tomsk case study reports and the conclusions drawn from the analysis of those problems, a number of recommendations were made of ways to improve the functioning of the regional forest sector through changes in the institutional framework.¹²

Regional forest stakeholders in Tomsk have started activities and produced some specific suggestions aimed at restructuring the regional forest sector in order to make it more efficient.¹³ Many of the efforts made by regional authorities and others are positive and important. For example, the development of higher forestry education is one important step that has recently been taken. The reorganization (in 1998) of the Union of Forest Industrialists, formally separating it more clearly from the state, is an

¹¹ The whole history of the attempts to stop the devastation of Russia’s cedar forests is a story of political administrative failure and a demonstration of the shortcomings of centralized planning. This issue is described in detail in Sheingauz *et al.* (1995:19–20). See also Obersteiner (1997:10 ff.).

¹² It should be noted that several international organizations, such as the World Bank, OECD, IIASA, IUFRO, and others, working with the Russian forest sector and the situation in Russia in general, have already made numerous valuable suggestions on how to make the Russian forest sector sustainable.

¹³ The following text is reproduced from the final section of Carlsson and Olsson (1998) with only minor modifications.

example of another serious effort to meet the existing problems. The analyses made in the Tomsk Oblast forest program can also be regarded as a good foundation for further developments.

One problem with many of the proposed measures for improving the situation is that they *presuppose the existence of an already well functioning institutional framework*. This is the crucial problem. In order to improve the functioning of the institutional framework the following principles were suggested in our case study report (Carlsson and Olsson, 1998). These suggestions mainly concern the public sector and civil society in general:

- The overall task of political authorities in Tomsk should be to minimize or eliminate political risks as a means of achieving economic growth. This duty has an array of consequences.
- Regional authorities and others should promote institutional stability and, thus, transparency of rules, which will subsequently increase predictability.
- Rules should be simplified and contradictions between various rules should, if possible, be eliminated.
- When rules are in a flux domains of uncertainty might be occupied by deliberate decision making. Regional authorities should try to advance their sphere of influence relative to the center (Moscow). All possibilities should be explored in order to find regional and local options for a sustainable forest management.
- Together with other actors regional authorities should develop programs in order to stop the deterioration of education and to increase competence in the forest sector.
- The activities of independent actors should be encouraged and supported, thereby counteracting a further bureaucratization of the forest sector. The guiding principle should be a conscious promotion of a structure of actors who benefit from the existence of an open and transparent system of rules rather than from obscure informalities or even corruption. 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 private actors in the forest sector as well as the regional authorities must find ways of releasing industries from their social commitments. For example, the privatization of apartments should be increased and supported. The present situation is definitely a serious obstacle for attracting foreign investments.
- Finally, all concerned parties should try to find economic support for deliberate programs aimed at renovating apartment houses and public buildings. As a side effect, this will increase the regional demand of forest products. In cooperation with federal authorities, representatives from the *oblast* should try to make the preservation of unique areas of Siberian log houses in Tomsk a concern for the international community. Contacts with international organizations, such as UNESCO, should be initiated.

When the analysis of the enterprise interview data was finished, some concluding thoughts about the problems in the Tomsk private enterprise sector were presented in a separate report (Carlsson *et al.*, 1999):

The important and interesting notion of the virtual economy elaborated by Gaddy and Ickes (see footnote 9) focuses on the mechanism through which inefficient enterprises insulate themselves from the market. Gaddy and Ickes also mention the fact, even if they do not pay it much attention, that after the “market revolution” a new truly private sector (as distinct from the “on paper” privatized large state companies) has emerged on the Russian scene. This sector mainly consists of new, small enterprises, such as those included in our sample of enterprises in Tomsk.¹⁴ These firms are, to a greater extent than the old State enterprises, subject to the laws of the market. They are dependent on the realization of their products (to meet a demand and sell for money) and they have to manage their companies (make investments) in order to survive on the market. The importance of this new market sector should not be underestimated. On the other hand, our data indicate that the development of these new groups of enterprises might be already halted in the first phase after establishment. For example, commercial relations to the bank system seem to be poor, or absent, and the involvement in the social sector might be significant.

Because of the limited number of interviews no general conclusions could be made on the basis of our enterprise study in Tomsk. However, a number of questions and hypotheses were raised that deserve further investigation:

1. Neither the supply of timber nor the problem of finding suitable markets can explain the current situation in the forest sector. To the extent that firms regard such problems as obstacles for their development these are embedded in a complex of other obstacles.
2. New, private forest enterprises invest relatively more than older established firms, although the need for renewal is greater in the latter category.
3. Firms that are involved in exports are better off than those who mainly operate on the Russian market.
4. Business ethics is correlated with performance. Many experiences of violations of rules are negatively correlated with the general propensity to invest as well as the development of production.
5. New, private enterprises consider the lack of third-party solutions as more problematic than old established firms. This has to do with the fact that the latter are more involved in deliberations with the bureaucratic structure surviving from the Soviet period. Thus, negotiations for privileges are more common in this group of enterprises, barter trade flourishes, and so forth.
6. A significant number of firms are involved in the provision of social services. Especially when it comes to new enterprises it is not clear to what extent these engagements are caused by ambitions to support the enterprise’s own workforce. It

¹⁴ The following text is reproduced from the final section of Carlsson *et al.* (1999) with only minor modifications.

might as well be an indication of a conscious “export” of problems from the public sector raising more hurdles for the development of the firms.

7. Despite the fact that the present taxation policy might be regarded as a major problem for the forest firms it is the combination of taxes, fees and a number of other institutional features, that creates a state of unpredictability. As a consequence firms are prevented to benefit from the existing resources.

How these thoughts and suggestions should be further discussed and analyzed is a matter for the citizens of Tomsk Oblast and the regional forest stakeholders to decide. One of the main goals for the policy exercise that IIASA conducted in Tomsk in June 2000 was to stimulate stakeholder initiatives in this area.

1.3 Policy Exercises as a Tool for Stakeholder Participation in Policy Development

1.3.1 The meaning of the concept in the IIASA context

As a natural extension of IIASA’s research activity in this field the results of the study of Russian forest institutions are being disseminated through a series of *policy exercises*. Such exercises constitute a “tool” by which the results of the project can be brought to the attention of the Russian forest sector stakeholders. Policy exercises will be conducted in those regions of Russia where the project previously carried out special case studies.

The objectives of a policy exercise are:

1. To foster communication and mutual learning through effective face-to-face communication (confrontation);
2. To synthesize policy-relevant and useful information through the integration of disparate sets of formal and informal knowledge; and
3. To identify policies for alternative and plausible futures.

The case study reports from the respective regions are used as the basis for the policy exercise. The findings are presented to the regional stakeholders participating in the exercise in the form of a problem overview. Stakeholders are, for instance, executives in the forest sector, politicians, businessmen, representatives of environmental and other public organizations with an interest in the regional forest sector, etc. Ideally, there should be some 25–50 participants in such an exercise. Having been exposed to the problem overview participants will then be challenged to identify the general issues and specific problems that they find particularly important to solve in order to improve the functioning of the forest sector in their region. The exercise aims at creating an atmosphere in which different stakeholders can freely present their views on the problems and suggest solutions.

The goal of the policy exercise is to achieve a clear and relevant problem identification and to facilitate a discussion among all stakeholders about how best to solve the identified problems. If the exercise is successful the discussions started will continue in

permanent working groups formed by the regional forest stakeholders with the purpose to develop a modern regional forest policy. It is expected that these groups will continue their work on a regular basis after the initial IIASA-led exercise is over. The IIASA team will then only monitor the work and when necessary interact with the groups until their work is self-sustaining.

Thus, in summary, the policy exercise is an attempt to approach a problem situation about which some knowledge has already been gained through previous study. This is done by bringing together people, who, through their normal daily activities and interaction, actually constitute the system and maintain its function (including its malfunction), to exchange information and opinions on the problems they believe must be solved in order to make the system work more efficiently.

1.3.2 Theoretical foundations and earlier experiences

The management of natural resources has always been a high priority area for government control. The operative management activities have often been entrusted special government agencies — in the case of forests this agency was typically the state forest service (variously named in different countries). Governments have kept a decisive say in the management of important natural resources even if they have not always been the lawful owner of the resource. In countries where the resources have been (primarily) privately owned, governments have typically embedded the use and management of the resources with detailed regulations. The Swedish forests are a good example of a largely privately owned natural resource embedded in an institutional framework that gives the state a decisive say in its management and use. In Russia, forests were always owned by the state and there are no clear signs of any changes in this state of affairs, even if the form of public ownership of the forest lands — federal, regional or municipal — is nowadays frequently being discussed.

It would seem that public ownership would give the state excellent control over the management and use of the natural resources found on the territory under its jurisdiction. The degree of popular influence over the management and use of such resources would then be determined by the degree to which people are able to influence political processes, that is, it would be decided by the workings of democracy. However, during the last decade or so it seems that governments have been meeting increasing difficulties in their natural resource management, at least this seems to be the case for forest resources. A fundamental reason for these difficulties is of course that a number of independent actors (state authorities, government agencies, enterprises [both state owned and private], civic organizations, private citizens) are engaged in various ways in the actual management and use of a nation's forests. These actors have (at least partly) different objectives and different "cultures" of natural resource utilization causing conflicts and (often) an inefficient and unsustainable resource use.

While, for a long time, these inbuilt causes of conflict and inefficiencies did not seem to upset traditional state controlled resource management systems, there seem to be other factors that have gained an increasing importance during the past decade and today these factors are causing a profound rethinking of forest management policies and practices all over the world. So, for instance, property rights patterns have shifted in

some regions of the world (notably in Central and Eastern Europe), political power has become more decentralized (giving regional and municipal authorities increasing influence), democratization and multiparty politics have emerged with the decline of centrally planned one-party states, demographic transitions have shifted the population structure towards higher urbanization (with changing perceptions, interests and objectives in forest management), governments are being down-sized due to financial restrictions making them only hold on to basic functions (such as policymaking, planning, legislation, etc.), functions earlier belonging to a single natural resource management institution have become increasingly contradictory (cf. conservation and production) and sometimes various functions have eventually been separated through institutional reform and the breakup of organizations (Anderson *et al.*, 1998).

These developments have made people engaged in forest sector issues — forest managers, users, and researchers — start thinking about how to improve forest management performance and avoid conflicts that are detrimental for the efficiency and sustainability of forest use. Suggestions for improvements have often included calls for an increased pluralism in forest management¹⁵ and collaborative or participatory approaches for engaging stakeholders in the development of efficient forest policies (see, e.g., Carter, 1999; Warburton, 1997; Buchy and Hoverman, 2000; Burley *et al.*, 2001; Kennedy *et al.*, 2001).

Reforming policy-making procedures in the transition countries was, as one should have expected, no simple and fast process. It was assumed that the transition would somehow automatically, through the workings of the emerging market forces, lead to an economy characterized by a greater allocative efficiency and an increase in the population's living standards (see, e.g., Kolodko, 2000). However, after more than ten years of transition, evidence of unambiguously positive effects of the changes is still scarce. During Soviet times, resource allocation and the redistribution of income used to be entirely in the hands of the Communist Party elite. Here, there were no market forces in operation and very little influence was left with the political representation system. A fundamental factor obstructing the efficient workings of the Soviet economy was the undemocratic nature of the political system.¹⁶ Thus, expectations were high for this situation to change rapidly as transition started to make an impact.

However, as is now clear for anyone to see, the transition only brought efficiency and profits to a few sectors and enterprises in the economy — here, the new free market allocative efficiency might indeed have made an impact — while leaving the majority

¹⁵ *Unasylva*, No. 194 (1998) contains a number of articles presented at a FAO hosted workshop in December 1997 on “Pluralism and Sustainable Forestry and Rural Development”.

¹⁶ This is not to say that a democratic centrally planned economy would have been more efficient and able to provide for its citizens. Implementing economic plans elaborated in a perfectly democratic way would probably anyway have been hampered by another fundamental problem, viz. the inadequate calculating ability of the planning organs making it impossible to develop detailed output and input plans for the incredibly large number of products and services that a modern economy offers. An equally important factor is that humans are not — and do not (want to) behave like — machines, but often (probably most of the time) display seemingly irrational behaviors, which could hardly be made compatible with taught politically determined economic plans.

of enterprises with small chances of survival.¹⁷ It also brought personal wealth to a few citizens while an increasing number of people were left with very little to share. Thus, the market reforms failed on two major goals (see, Kolodko, 1999).

Since transition did not often bring about a change of (or in) the people in charge of important social functions such as, in our case, Russian forest managers and forest users, reform measures proposed by such circles are sure to be viewed with suspicion not only by the general public, but also by the new emerging group of business managers with a modern outlook and (often western) economic training. Efforts to reform the Russian forest policy through participatory processes engaging broader stakeholder groups (business managers, politicians, citizen initiative groups, etc.) should therefore be both welcome for its democratic content and efficient in the sense that it would stimulate profound institutional changes.

Naturally, acknowledging the need for a pluralist approach and using concepts of participatory policy formulation should not be expected to immediately improve the dismal situation in the Russian forest sector. There are a number of problems that have to be overcome in order to make such approaches change the situation for the better. The most obvious problem — and perhaps the most fundamental obstacle for the successful implementation of participatory policy formulation methods — is the historical legacy from Soviet times that is still today manifesting itself in a specific mind-set or mentality making people refrain from political activity and leave public policy decisions in the hands of (often incompetent and dubiously legitimate) public and private “decision-makers” while at the same time they loudly complain about current politics and the politicians whom they themselves have elected.

But even disregarding the “mentality problem”, there are still a number of theoretical and practical problems connected with the implementation of a participatory forest policy formulation. Finding a specific form for stakeholder participation in forest policy formulation suitable for the situation in the Russian regional forest sector is perhaps the most difficult problem to solve. In Russia, with its limited prior experience of democratic processes and the relatively little impact of transition so far, there is not much to build this kind of participatory policy approach upon. Under the existing circumstances the only possible way of achieving a practical result seems to be to ask the existing power structures (the political “establishment” and official forest agencies) for sanction and support in testing methods for stakeholder participation in the formulation of modern regional forest policies. Their rationale for providing such sanction and support would be their need (without knowing how) to make changes happen that would improve the situation in the forest sector.

IIASA has a fairly long experience in developing and using participatory approaches in policy making. The “policy exercise” concept was, in fact, developed in a large IIASA project called “The Sustainable Development of the Biosphere” during the beginning of the 1980s. Garry Brewer (1986) proposed the use of a kind of “free-form, manual games” that he labeled “policy exercises” to engage broad layers of the population in the development of policies to cope with the emerging serious global environmental

¹⁷ It is this division of the economy that has been labeled the *virtual economy* (cf. footnote 9).

problems.¹⁸ In the second half of the 1980s, Ferenc Toth and his co-workers further developed Garry Brewer's policy exercise concept at IIASA (Toth, 1988a, b). In Toth's conceptualization there should be a group of 7–10 people constituting the *core group* of the policy exercise. Linked to this group should be a *control group* consisting of supporting experts and policy analysts. A number of *policy teams* composed of policymakers identified by the core group, should also be established. The policy teams provide policy inputs to the exercise and they are also the most important clients of the process. In order to run a policy exercise there must also be a *facilitator* in charge of meeting procedures and there should be some *support staff* whose task it is to compile and modify eventual computer models, collect data, preparing visual aids, help summarize the results of meetings, etc. Toth (1988a) envisages a practical implementation of a policy exercise in three phases, preparation, workshop, and evaluation. As a basis for discussions, Toth suggests using scenarios of possible future developments elaborated by the control group and the support staff. He distinguishes between six different types of scenarios that might be used at various stages in practical implementations — “the workshop phase” — of a policy exercise.

Based on earlier work at IIASA, the Forestry Project further elaborated the concept of policy exercises and tested the approach in a run of five exercises for different categories of participants (Duinker *et al.*, 1993). Here, a number of useful insights in the workings of policy exercises were gained. While the development and use of new “policy tools” must go through three stages before it is fully workable (development and testing; application in a research-and-development setting; and application in an actual policy-development process), the IIASA research group, due to lack of time and money, was only able to bring it through the first stage. It was felt that the protocol for running such an exercise still needed further testing before it could be said to be “safely designed with an inherent bias for success.” It was also felt that the experience gained by the facilitators from the test run was not sufficient for them to feel entirely confident in the workings of the new tool. Although, it was concluded that enough experience had now been gained to allow the tool to be put to use for more substantive objectives.

Since this time, a number of projects at IIASA have worked on the further elaboration of the policy exercise or employed the approach (or similar designs) to disseminate the results of their research and to engage stakeholders in continued research or policy oriented activities (see, e.g., Najam, 1995; Parson, 1996; Franz, 1997; Gluck *et al.*, 2000).

Already at an early stage it was evident that the policy exercise, which the Forestry Project would be able to conduct in the Russian regions participating in our case study of forest institutions, would differ in several respects from the more or less ideal designs proposed by Brewer (1986) and Toth (1988a, b). While Brewer does not even discuss the issue of organizer legitimacy seeming to rather assume that everyone involved would naturally welcome the policy exercise, the issue of legitimacy caused some

¹⁸ In a comment to Brewer's article, Nick Sonntag (1986) noted that the policy exercise concept proposed by Brewer had its closely related precursor in the so-called Adaptive Environmental Assessment and Management (AEAM) methodology developed 10 years earlier by a team lead by C.S. Holling (cf. Holling, 1978).

serious concern in the present context. Why should a foreign research organization without any significant financial backing be given support — or even be allowed — by public authorities and forest sector organizations in a Russian region to organize a forest stakeholder meeting with only very vaguely indicated and probably rather obscure objectives? Who would invite IIASA to conduct such a meeting? Which organization would be willing to serve as the local host, who would be interested in serving as the local meeting organizer and coordinator? It immediately seemed to us that in the current Russian environment the only available option for us would be to make use, once again, of the regional study coordinators who had helped us to perform our earlier case studies. Most of these coordinators already had access to the regional forest authorities and the regional forest enterprises.

In the case of Tomsk, we were eventually given formal high level authorization for our policy exercise workshop by the Tomsk governor himself.¹⁹ The danger with such top-level sanction is that it might adversely affect the selection of workshop participants. Another conceivable danger would be that such official sanctions would hamper participant initiatives by imposing an attitude indicating that the “establishment” controls the whole activity and that no real initiatives would be able to make an impact in any case. This approach also made us realize that we must probably be very explicit in stating our objectives for undertaking to organize such an exercise and explain the specific goals of the event as clearly as possible.

The requirements (conditions) for the successful implementation of a policy exercise have been discussed by IIASA researchers who were earlier engaged in the development of the approach (see, e.g., Brewer, 1986; Toth, 1988a, b; Duinker *et al.*, 1993; Najam, 1995; Parson, 1996) as well as in more recent journal literature reviewing participatory approaches in forest management (see, e.g., Anderson *et al.*, 1998; Vira *et al.*, 1998; Ramírez, 1998; Carter, 1999; Hot spot, 2000; Buchy and Hoverman, 2000; Burley *et al.*, 2001). Among the criteria we realized were important for implementing a policy exercise dealing with institutional problems in the Russian regional forest sector were:

- The need to have a fairly small group of people representing various stakeholder groups in the regional forest sector;
- The importance to select this small group so that it could claim some degree of legitimacy and so that it was endowed with sufficient resources (competence in terms of knowledge and power) making it possible to exert real influence on the development of the regional forest sector;
- The need to use a group of experts (in this case the IIASA research group) to prepare a description (if not a scenario) of the current situation in the forest sector and the institutional problems that the group of experts had identified in its previous study of the regional forest sector;
- The need to find a way to ensure that the participants in the policy exercise workshop really would get an opportunity to make their views and thoughts heard. This condition entails the problem of finding a form for the meeting that would

¹⁹ More about the preparations for the Tomsk exercise is given in Section 2.

facilitate such an unrestrained exchange of views. Fulfilling this condition, allowing — even encouraging — a pluralistic variety of (often) opposing views on what would be best for the forest sector and ways of achieving sector goals, also means that the form should be robust enough to accommodate conflicts that might arise.

- Realizing that developing measures to change the existing institutional framework to become conducive to the development of an efficient and sustainable regional forest sector requires a long-term effort, there was a need to find forms for continuing the work started during the policy exercise workshop to allow it to produce realistic and well-founded (legitimate) suggestions for policy improvements;
- Realizing the limited extent to which agency relations operate in today's Russian economy, it was necessary to find ways of making it known to as wide an audience as possible what the policy exercise was supposed to do and what it managed to achieve.

Thus, ultimately, the question that the IIASA group wanted to answer concerned the possibility to achieve positive effects in terms of improved efficiency and sustainability in regional forest sector activities through the use of a participatory approach to policy formulation (in this case a policy exercise). This is to say that the primary question concerned the possibility to use participation as a means to a specific end, and not as an end in itself — even if such a goal is also highly warranted in the present Russian context of underdeveloped political democracy (cf. Buchy and Hoverman, 2000).

1.3.3 The policy exercise tool tested

IIASA's forest institutional study conducted its first policy exercise in Tomsk in June 2000.

It was anticipated that the format of the exercises would have to be adapted to the conditions prevailing in the various regions which were part of our study. The general idea was to try to get some 25–50 regional forest stakeholders to take part in the exercises. As for the program of the event, it was decided that the IIASA research team would present the findings of the IIASA study and then invite representatives of forest research organizations, foresters and forest industrialists (both from the regional and the federal level) to present their views of the situation as a starting point for the subsequent group discussions that would focus on more particular issues selected by the participants in an initial plenary session. The exercises were planned to be conducted over two full days, which was thought to be sufficient time to thoroughly penetrate the issues selected for group discussions. The participants should represent various stakeholder interests.

Through the initial presentations and the following plenary discussion it was hoped that clear problem identification would be achieved. The group discussions would then be used to negotiate an agreement on the most efficient prioritizing of the identified problems. The idea being that efforts aiming to solve the often highly interrelated problems besetting the forest sector of our study regions must be made in a certain order so that it should be possible to disentangle the whole “problem knot”.

The organizational problems that the IIASA group anticipated concerned the importance of finding a local problem and task “owner,” i.e., a group or organization with a clear

interest in and commitment to identifying the problems and promoting real and sound solutions to the identified problems. It was hoped that such a group or organization would be found in the course of the study preceding the policy exercise. It was also realized that the organization of a policy exercise in an almost entirely unknown environment required a very competent and energetic local organizer and facilitator.

2 The Tomsk Exercise

2.1 The Planning Stage and Actors Involved

The policy exercise in Tomsk was originally planned to take place in the late fall of 1999. Preliminary designs of an exercise were already drafted at the beginning of that year. Later, during a visit to Tomsk in the early autumn, the leader of IIASA's Forestry Project, Sten Nilsson, held preliminary discussions about the possibility of conducting an exercise in the region. These discussions subsequently led to a decree (No. 373-r dated 10 September 1999) being adopted by the head of the Tomsk regional administration (Governor Viktor M. Kress), in which the project was given active support by the regional administration. The plans for the exercise were also discussed with representatives of the federal level forest sector. It was expected that several representatives of Moscow-based federal organizations would take part in the Tomsk policy exercise to be conducted in late 1999.

However, for various reasons (mainly due to other commitments by both the IIASA team and the Moscow representatives) no suitable dates for the exercise could be found in late 1999. Instead, it was agreed to have the exercise during the spring of 2000. Eventually, the dates for the exercise were definitely set for 14–16 June 2000.

Through the original contacts made by Professor Nilsson in early 1999, a person was identified (Professor Gennady G. Matvienko, Director of the Institute of Atmospheric Optics, Siberian Branch of the Russian Academy of Sciences — SB RAS), who was willing and able to take on the practical organizational responsibilities for a policy exercise in Tomsk. Since Professor Matvienko was not directly engaged in forest sector activities he later solicited the support of the director of the Tomsk branch of the Institute of Forestry, SB RAS, Professor Vladimir N. Vorob'ev. Professor Vorob'ev soon called upon a small number of people to form an organizing committee for the planned event. Apart from Professor Vorob'ev, who took on the chairmanship of the group, the organizing committee actually contained three more people, only one of whom was actively working in a state forest company.²⁰ Later a program committee was also named, containing prominent actors in the Tomsk regional forest sector, people from the regional administration, science, and the regional forest management. (The members of these committees are listed in the invitation letter reproduced in Appendix 2.)

²⁰ Dr. Alexander S. Sulakshin of the Regional State Unitary Company "Tomsk Forest Industrial Complex." Dr. Sulakshin had earlier served as the "regional coordinator" of the IIASA case study of the Tomsk forest institutions reported in Carlsson and Olsson (1998) and Carlsson *et al.* (1999).

The two IIASA reports dealing with the forest institutional problems of Tomsk Oblast' were translated into Russian and sent to the chairman of the organizing committee for subsequent distribution to the participants in the upcoming workshop. The committee also worked out an invitation letter through which stakeholders in the regional forest sector were invited. (The letter was actually sent out as a kind of confirmation of prior personal inquiries about stakeholders' interest in participating in the exercise. See Appendix 1.) All preparations were made in close contact (via email) with the IIASA group.

2.2 The Design of the Exercise — Participants

2.2.1 Provisions and requirements on the part of IIASA

The research group at IIASA decided to invite Professor Peter Duinker, Head of the School for Resources and Environmental Studies at Dalhousie University, Canada, to serve as the main facilitator of the Tomsk policy exercise workshop. Professor Duinker is a former IIASA research scholar with extensive experience of conducting policy exercises, both during his period at IIASA (cf., for example, Duinker *et al.*, 1993) and in his work in Canada. Using an “external” facilitator was quite natural considering the fact that the whole event was initiated from an “outside” organization (IIASA), and that the policy exercise concept was new and largely unknown to the local stakeholders in Tomsk. Even if a suitable local candidate had been available for serving as workshop facilitator, earlier experiences in participatory action (cf., for example, Wright, 1999) suggest that it would still have made good sense to use an “external consultant” since it would probably not be possible to find a “local” facilitator who would be allowed to take a leading position in the exercise in the first place, and, since the negative consequences of failure could be considered severe, it would also be difficult to find someone willing to take up the challenge.

The local workshop organizer, Professor Vorob'ev, agreed to implement the principal instructions relating to the design of the workshop issued by the IIASA group. According to these instructions the goal was to have a total of about 25–50 participants in the workshop. To reach this goal it was believed that some 40–70 people must be invited. Participants were supposed to be primarily sought among regional forest sector stakeholders, such as top managers of regional forest industrial enterprises, leading personnel in the regional forest management (including chief foresters of the *lezkhoz*y in the region), officials in the regional administration responsible for forestry and the forest industry as well as representatives of regional environmental non-governmental organizations (NGOs). It was also understood that the respondents to our previous questionnaire should be invited. The local organizer proposed regional stakeholders to invite and invitations were sent out after prior agreement with the IIASA group. After personal communication, IIASA also sent invitations to a number of officials working with forestry and forest industry issues at the federal level (in Moscow).

The practical requirements for the meeting that IIASA set up were simple and straightforward — a large meeting room for the initial and final plenary sessions, four smaller meeting rooms for group sessions, computer and copying facilities should be readily available (including access to the Internet). Two well-qualified interpreters (for

‘sequential’ interpretation) were required for the plenary sessions. Discussions in the group sessions were to be held in Russian without interpretation so as to not inhibit an efficient exchange of opinions. (The idea was that some members of the IIASA group with native or acquired ability in Russian were supposed to sit in during the group sessions as observers.)

As for the workshop program, it was decided that the event should last for two full days and that the first half-day should be spent on explaining the format of the workshop and on a longer presentation of IIASA’s previous study of the institutional problems of the Tomsk forest sector. Some time should also be set aside for regional stakeholder presentations. The bulk of the available time should, however, be spent on group discussions. Group work should start in the afternoon of the first day and proceed until (at least) noon of the second day. A shorter plenary session was envisaged to finish the whole event. The general goal of the workshop was stated to be (a) to try to get regional forest sector stakeholders to identify the most important and serious problems hampering an economically and environmentally sustainable development of the Tomsk forest sector, and (b) to start a discussion on how best to solve the identified problems. The underlying notion behind this agenda being a common understanding that the only people possessing the knowledge necessary to solve the institutional problems of the Tomsk forest sector are the actors working in the sector themselves, in collaboration with representatives of various regional NGOs and political organizations.

These were the original requirements on the format of the policy exercise explicitly issued by IIASA to the local organizer in Tomsk. Let us now turn to look at how these requirements were converted into practical arrangements by the local organizer.

2.2.2 Responses and outcomes

It should be immediately recognized that, in general, the local organizing committee did everything in its power to make the policy exercise workshop function well.²¹ The practical arrangements were quite satisfactory and adequate for our purpose, even if they did not exactly meet our expectations. For instance, while the IIASA group had anticipated and aimed for a relatively small and rather informal event, it turned out that the local organizer had opted for using what might be seen as the “standard template” for a (small) international conference. (Throughout, the workshop was actually referred to as an “international symposium” by the Russians.) The exercise was held in the main building of the Institute of Atmospheric Optics, one of the larger institutes belonging to the Tomsk science center (SB RAS). The science center is situated some distance from the city center, where the out-of-town participants were accommodated. Bus transfer from the hotel to the workshop premises was therefore provided for these participants.

It turned out that many of the invited participants were only expected to be present during the initial plenary session. This necessitated a comparatively large plenary hall. The hall that was used for this purpose had a traditional “cinema type” interior, which

²¹ We are entirely omitting budgetary issues from this discussion. Here, some friction was to be expected and a few problems also occurred, mainly due to the inexperience on the Russian side of handling budgets and accounts in accordance with western standardized procedures.

was appropriate for the plenary lectures, but turned out to be dysfunctional for the subsequent plenary discussions. The chosen “conference style” of the meeting also meant that the whole setting of the workshop was somewhat “over-ambitious” in the opinion of the IIASA team (with colorful posters, briefcases for printed materials, a secretariat comprising of about 5–10 people, etc.). Otherwise, the whole arrangement worked according to expectations, secretarial services (computers, Internet connections, copying facilities) worked well, the two interpreters were excellent, and the social events, like lunches and dinners, were quite satisfactory, etc.

The major setback of the event involved the participants. Although a large number of people were invited to participate in the policy exercise workshop and some 50 people agreed in advance to come, the number of participants that eventually came and stayed for the entire duration of the workshop and actively took part in the group discussions was comparatively small. From the list of participants (Appendix 3), it can be seen that there were a total of 45 Russian participants in the exercise. Of these 45 people, 20 represented the regional forest management or forest industry, 9 forest research organizations, 8 the regional or municipal administrations, 4 were specially invited by IIASA (collaborators in the IIASA study from other regions), and 2 persons represented the Institute of Atmospheric Optics which was where the workshop was conducted. Due to the major change in the federal forest management organization in Moscow (the formal abolishment of *Rosleskhoz*, the Russian Federal Forest Service, and the transfer of its duties to the Ministry of Natural Resources²²) that was unexpectedly decreed by the Russian president only a couple of weeks before the Tomsk exercise, none of the leading officials in the federal forest management, who had earlier confirmed their presence at the workshop, were able to travel to Tomsk to participate in the event. This was of course a major setback, especially for the local organizers, and it is likely to have significantly reduced the regional stakeholders’ interest in the meeting. To be able to engage in direct communication with central Russian forest sector decision makers obviously constituted a strong incentive for regional stakeholders to participate. In the end, these changes at the federal level meant that only two Moscow participants were able to come to the meeting, only one of which, Mr. Egorov of “NIPIEIlseprom” (cf. Appendix 3), took active part in the group sessions while the other, Mr. Ligachev (Tomsk elected representative to the Russian federal Duma), did not actually spend much time at the meeting at all.

The initial plenary session on the first day of the workshop had a large audience. Apart from the people mentioned in the list of participants (cf. Appendix 3), it can be estimated that an additional 10–20 people were present during the first half-day of the exercise. Based on the preregistrations to the event, the organizers had anticipated a large enough group of dedicated participants to allow the establishment of three (or even four) working groups. However, towards the end of the first day, participants had gradually dropped off to the extent that the possibility of arranging any group sessions

²² At the same time, the Russian environmental protection organization, *Goskompriroda*, the State Committee of the Environment, was abolished. Its duties were also transferred to the Ministry of Natural Resources. These changes caused broad protests among employees of the two organizations and great concern for the future of forest management and the state of the Russian environment were expressed both by Russian and international organizations.

almost seemed lost. Professor Vorob'ev, who served as chairman of the afternoon plenary discussions, strongly admonished participants to stand firmly by their prior commitment as registered participants and also come to the next day's group sessions. As it turned out, 30 participants (including the eight members of the IIASA team, the two interpreters and a couple of people belonging to the workshop secretariat) appeared at the start of the meeting on the second day. A most disappointing fact was that the majority of the absentees were to be found among the representatives of the regional forest management and forest industry.

With the relatively small number of "real" stakeholders intending to participate in the group sessions, the organizing committee and the IIASA group decided to form only two working groups.

It is now time to have a closer look at the substantive aspects of the meeting, focusing on the contents of the program and especially on what took place in the group sessions.

2.3 The Meeting Itself

2.3.1 Day 1: Plenary presentations and preparations for the group work

The workshop started in the morning of Wednesday, 14 June 2000. The first hour and a half of the workshop was spent on introductory speeches. Mr. Vladislav I. Zinchenko, deputy head of the Tomsk regional administration responsible for education and research policy, welcomed the participants to the workshop. He drew attention to the fact that much had already changed in Tomsk since the date of the agreement with IIASA to conduct this workshop (September 1999). A program for the development of research and higher education that was adopted at a Siberian Accord meeting in August 1999 was now being implemented. New rules for the use of cedar forests were soon to be issued by the Federal Forest Service (FFS — recently merged with the Ministry of Natural Resources). Tomsk was to be chosen as a pilot region for the implementation of new techniques envisaged by these new rules. Mr. Zinchenko ended by wishing the meeting success and stating that he hoped it would make an impact on the workings of the Tomsk forest sector.

Mr. Leonid D. Bystritskii, deputy head of the Tomsk regional administration in charge of industry, forest industry and the oil and gas complex, also welcomed the meeting participants. He continued with a brief overview of the current situation in the Tomsk forest sector. He pointed out that 26 percent of all forest resources in West Siberia could be found within the borders of Tomsk Oblast. Forest lands are huge in proportion to the population (18.6 ha/inhabitants), and the annual allowable cut was 27 million m³ but today harvests merely amount to 1.2 million m³. The numbers are striking bearing in mind that a small country like Finland harvests around 50 million m³ per year. For various reasons, like political instability, unclear federal governance and property rights (affecting not only forest harvesting but also forest management), contradictory legislation (harvesting rules are not compatible with environmental regulations), etc., the share of regional budget revenue emanating from the forest sector is today a mere 4 percent compared to 12 percent in Soviet times. Today, harvesting is no longer profitable due to high energy prices, expensive railroad transport, lack of roads, etc. Mr.

Bystritskii indicated that he would like to see the workshop come up with recommendations on how to improve harvesting in an environmentally acceptable fashion.

As the third introductory speaker, Professor Anatoly Shvidenko, senior scientist in IIASA's Forestry Project, briefly presented the long-term research work performed at IIASA on the transition problems hampering the development of Russia's forest sector.

Before the morning coffee break, Professor Peter Duinker, in his capacity as workshop facilitator, briefly outlined the objectives and the format of the meeting as envisaged by the IIASA group. Apart from being a stage in the dissemination of the results from the IIASA institutional study of Tomsk Oblast, the aim of the policy exercise workshop was to initiate collaboration among the regional forest stakeholders to identify the most pressing problems to be dealt with in order to improve the functioning of the Tomsk forest sector and to start a discussion on possible ways of coping with these problems. The idea was to create an atmosphere at the exercise that would allow informal but structured discussions in which all stakeholders present should be encouraged to make their voice heard. The outcome of the workshop would ideally be a set of recommendations for immediate action to be taken by the regional government and the stakeholder groups themselves as well as an outline for a continued, more long-term effort to redefine the regional forest policy.

After the coffee break, Dr. Lars Carlsson and Professor Nils-Gustav Lundgren presented the IIASA case study on forest institutional problems of Tomsk Oblast. This was a fairly long and detailed presentation lasting into the afternoon with a one and a half hour break for lunch. The presentation was based on the two IIASA Interim Reports briefly summarized in previous sections of this paper (cf. Carlsson and Olsson, 1998; Carlsson *et al.*, 1999).

The first day of the workshop ended with a two-hour plenary discussion chaired by Peter Duinker and Vladislav Vorob'ev. The aim of this session was to generate an extensive list of problems that participants would be able to use as a starting point in the following day's group discussions. The session started with a presentation of the regional program "Sustainable development of the timber industry complex of Tomsk region." The program was introduced by Dr. Alexander Sulakshin, senior consultant to the Regional State Unitary Company "Tomsk Forest Industrial Complex."²³

In the discussion several participants, representatives of forest industrial companies and research organizations both in Tomsk and Moscow, took the floor and made lengthy and fairly general personal statements on the current situation in the Tomsk forest sector and in Russia at large. The following paragraphs give a flavor of the discussion.

²³ This is a newly established holding company comprising of several forest harvesting and industrial enterprises situated in remote areas of the region. The company seems to have taken over some of the duties of the above mentioned Union of Forest Industrialists, for which Dr. Sulakshin worked when he served as the main local coordinator of the IIASA case study of Tomsk. The company actually occupies the same building as the Union and it seems that the two organizations coordinate their activities to a large extent. The program presented by Dr. Sulakshin is a further development of the program mentioned in Section 1.2 (Tomsk Oblast, 1997).

At the regional level problems were said to be related to the inheritance from Soviet times. A number of “contradicting tendencies” in the regional forest sector were left after the old system, to be resolved through the new order emerging in the transition period (cf. Tomsk Oblast, 1997).²⁴ However, most of these “contradictions” still remain to be solved. Complaints were also made by a representative of a small enterprise that there was actually no political will in Tomsk to come to grips with the problems of the forest sector. Today, it is rather the profitable oil and gas industry that is the focus of regional administrators’ and politicians’ interest. A Moscow-based researcher also noted that while the financial crisis of 1998 resulted in an opportunity for the domestic industries to expand there is currently no concern for the “quality of growth”. No one seems interested in improving the structure of existing forest industries through investments in modern technology. This means that the problems will reappear once the economy recovers and foreign goods will again be in demand.

Problems relating to the division of power between the federal, regional, and local administration levels must be resolved. This is a highly pertinent issue affecting forest property rights. Support for the establishment of a small enterprise sector should be developed. This is important for forming an independent social stratum — a middle class — in Russian society. It is important to get governments (at all levels) to see it as their task to serve the people, rather than the other way round. The current forest legislation — the Forest Code — containing many serious contradictions, needs to be revised, and regional forest codes should be developed. It was noted that the indicated changes are expected to take a long time to negotiate and implement. So far, the country has been engaged in solving acute problems, but it is now time to do something about these more long-term issues.

²⁴ The regional program (Tomsk Oblast, 1997) lists a number of such “contradicting tendencies” that might also be worth mentioning in this context. Thus, the remaining contradictions are said to exist (pp. 21–22):

- between the increasing poverty of the population in forest harvesting districts of the region, the destroyed social sphere in municipalities and a forest resource which is utterly inefficiently used through insufficient felling, extraction, processing, drying, coordination, and care.
- between the traditional raw material character of the forest industry and the demands of the market for high technology, and ecologically clean production.
- between the drastically growing international environmental-technological demands, put on the forestry culture (to the point of threatening market boycotts) and the outmoded and outworn logging techniques used in the forest of Tomsk Oblast.
- between the increasingly aggravated social, environmental, and economic problems and the absence of elementary efforts to monitor and analyze the problems of the forest sector, the absence of organization and coordination between the agents in the forest activity to stimulate a solution to these problems.
- between the insufficient and (or) contradicting existing statistical data, characterizing the situation and the development of the forest complex and the demands for developing and implementing a unified forest policy for Tomsk Oblast.
- between the seasonal logging work and the demands of regular payments to be made to the budget.
- between the principally new and specific social, environmental, and economic situation in the forest industrial complex and the outmoded normative-legislative base of forestry and logging, the legislation concerning employment and taxation, which do not take account of the existing specifics of the forest complex.
- between the intellectual, scientific-educational, production, and defense potential of Tomsk oblast recognized in the whole world and the over-aged techniques and technologies of forest protection, logging, and processing.

Representatives of regional state forest enterprises expressed severe criticism of the regional power. The regional forest sector was literally “thrown away.” Furthermore, the role of the state has not been seriously considered. Since the state is forced to interfere to avoid catastrophic social problems when newly privatized business enterprises turn out to be uncompetitive and become bankrupt, it should also take a more active interest in the governing of their enterprises (or the enterprises in which the state still has shared ownership). In such problem-stricken enterprises (often constituting the basis of whole municipalities) that the state is forced to save from bankruptcy by buying a majority portion of the shares, it should keep the shares and exert its influence as owner, that is, install an efficient company management. As it is, no investments are made that might improve the future situation of these problem companies and no investments can in fact be made without financial support from the state, since these companies (due to their location and current state) are not viable in the new economic environment. In effect, these views, provoked by harsh circumstance, represent a call for a (temporarily?) more active state regulation of the regional economy.

It was also pointed out that not only traditional forest management issues need to be discussed. It is absolutely essential to focus on the *economy* of the forest sector. For instance, the annual allowable cut is still set without any view to what is the economically feasible level of harvest, that is, what amounts of wood could actually be sold on the market. It seems that less is done by the regional state organs and the political system to improve the situation in the forest sector in Tomsk compared to many other regions. For instance, here it should in principle be possible to use some of the revenues of the profitable oil and gas industry to revive the forest sector.

During the last half hour of the plenary session the workshop facilitator summarized the discussion and presented an extensive list of what he had understood to be the most interesting and pertinent questions that had been brought up by the various speakers, issues that might be further discussed in the working groups the next day. The list, which contained 21 issues, is reproduced here exactly as it was presented (without any regrouping or deletions of possible overlaps):

- unclear and insecure property rights;
- contradictory laws and regulations;
- lack of law and order;
- low participation in education and training;
- unethical business behavior;
- uncertain and unstable administrative regimes;
- unstable and high taxes and fees (including stumpage);
- shortage of investment funds;
- old, uncompetitive technology;
- distance from markets;
- technological and ecological problems in forest management;
- inadequate forest inventories;
- inadequate transportation infrastructure;
- political instability;
- privileged relations between specific businesses and government;
- underfunding of forest management;

- outdated Forest Code;
- fragmented transportation policy;
- low priority of the forest sector in Tomsk government;
- poor information for forest sector decision-making (e.g., economic wood supply);
- poor markets for low-quality timber.

However, at this time it was already obvious that there would not be very many participants attending the next day. Vladislav Vorob'ev strongly encouraged everybody to come.

2.3.2 Day 2: Summary of the discussions in the two working groups

As it turned out, the next day some 30 people were present when the workshop opened in the morning. Of these 30 people about 17–18 were “real” stakeholders, i.e., people living in Tomsk and/or working in the forest sector.

It was immediately obvious that the limited number of participants present would not allow more than two working groups. It was decided that one group, under the leadership of Dr. Alexander Sulakshin, should deal with the problems of the forest industry and the other group, lead by Professor Vladislav Vorob'ev, should focus on forest management issues.

Opening the day's deliberations, Professor Duinker presented and explained a set of guidelines to be observed in the following group work (cf. Figure 5).

All participants were then asked to sign up for one of the two working groups. The procedure went smoothly and the three-hour group work began without further delay.

A brief summary of the discussions in the respective working groups is provided in the following paragraphs.

Group 1: “Forest Management”

Group 1 discussing matters related to forest management convened under the chairmanship of Professor Vladislav Vorob'ev.²⁵ The discussion in the group was heavily dominated by the chairman with the tacit consent of other group members. (Most of the group members seemed to know one another quite well and they probably had been through similar discussions on previous occasions.) By and large, the work of the group followed the agenda provided by the workshop facilitator.

²⁵ Group 1 had eight members, including two members of the IIASA team and the chairman. Three of the remaining members represented the regional forest sector, one the regional administration (Department of natural resources and the oil and gas complex). One member of the group was a forest economist from Moscow (who had also served as the main coordinator of the IIASA study of Moscow Oblast). The summary of the discussions in Group 1 provided here is based on the notes of the two IIASA team members, Anatoly Shvidenko and Soili Nysten-Haarala, who took part in the work of this group.

Instructions for the Working Groups

Institutional Problems of the Development of the Tomsk Forest Sector: International Workshop, 15 June 2000, 09.30 h to 12.30 h

1. Select a facilitator from among the participants in the working group. The facilitator's job is to make sure that (a) the discussions stay on topic and on time, and (b) that everyone at the table gets an equal chance to speak. The facilitator frequently asks questions to move the discussion in the right direction. It is best if someone with good experience doing this will volunteer.

2. Select a recorder/spokesperson from among the participants, too. The spokesperson's job is to take notes of the main points in the discussions, and present these in the plenary session after lunch. Here, too, it is best if a group participant with good recording and presentation skills will volunteer.

3. Discuss and provide ideas about the following questions. Be as specific as possible in the answers. For a specific problem area or theme:

(a) THE REAL PROBLEM

Make a short statement about what the problem really is. Are there different ways of stating the problem? Develop a group agreement on the best statement.

(b) PRIORITY

How critical is it for an effective and efficient transition of the Tomsk forest sector to fix this problem quickly? Is this high, low or medium priority?

(c) LINKAGES

Can action be taken on this problem independent of progress in resolving any other problems? If not, which other problems must be solved first before progress can be made on the problem you are discussing?

(d) KEY PLAYERS

Who needs to take primary responsibility and a leadership role to resolve the problem? Who else's participation is critical in resolving this problem?

(e) REQUIRED ACTIONS

What specific actions are required to begin solving the problem? What needs to be done first, and how soon? What resources are required to implement each of the identified actions?

(f) OBSTACLES

What obstacles are there to implementing the identified actions? How can these obstacles be removed?

Figure 5: Guidelines for the policy exercise group work.

Harvesting of the Tomsk cedar stands. The chairman intensively focused on the issue of Siberian stone pine (*Pinus sibirica*, locally called cedar) harvesting, the idea being that Tomsk should negotiate an exception from the moratorium on cedar harvesting with the federal authorities and introduce temporary regional rules allowing intermediate harvesting of the region's cedar stands. It turned out that preparation of such temporal rules were already underway in the Forest Institute headed by the group chairman.

Two factors account for the intense interest in the issue of cedar harvesting in Tomsk. The cedar forests constitute a significant share of the region's forest resources. (Cedar dominated stands comprise 35.4% of the area of all coniferous forests in the region and 47.6% of its growing stock.) Secondly, in 1989, the Supreme Council of the Soviet Union prohibited all industrial logging in these forests. The "cedar ban" has had negative consequences both from ecological and economic points of view. All group

participants agreed that harvesting of these forests would be ecologically warranted as well as crucial for revitalizing the Tomsk forest sector.

The arguments for introducing new rules allowing the harvest of cedar forests were based upon the fact that the cedar stands of Tomsk Oblast were becoming overmature and if nothing was done the forests would be severely damaged.²⁶ A dominant part of the forests are stocked by mature trees of high quality and per-hectare concentration, and located in areas with a usable infrastructure. At the same time, regional industries using cedar wood (e.g., the large Tomsk pencil factory) cannot obtain sufficient amounts of raw materials for their production. The discussion on this topic in the policy exercise workshop added support to the political thrust already mounted to bring about a change of attitude towards the issue of cedar harvesting in the central Russian authorities. (Soon after our workshop the campaign was successful and changes in the regional harvesting rules were later introduced, cf. footnote 32.)

It is necessary to develop a regional Forest Code. Another issue that was discussed by the members of Group 1 had to do with the development of a regional Forest Code for Tomsk Oblast. Russia is heavily centralized in most respects, while natural and social conditions significantly vary between different regions of the country. This situation begs initiatives to advance regionally specific regulations, such as a regional Forest Code, in which regionally specific conditions might be taken into account.

The group members also agreed that the Federal Forest Code was not providing an adequate regulation of the Russian forest sector. There are many inconsistencies in the current forest legislation, some forest acts are obsolete, many forest management acts are too “centralized,” allocating unduly weak powers and capacities to the regional level, etc. Existing forest legislation (including the Russian Federal Forest Code) is also incomplete in the sense that it only considers a part of all the problems it should regulate. Thus, there is a need for a Forest Code that accounts for all aspects of the forest sector, including institutional issues, and the division of power between the federal and the regional levels, etc. (This would be important for a region like Tomsk with its cedar forests and unique forest-bog complexes.)

However, public regulation of economic interactions (business relations) was found to be the field with the largest legislative and normative deficit. Much is missing here, such as rules supporting an economic assessment of the regional forest resources, and rules ensuring a transparent allocation and collection of payments and taxes for forest use, etc. The current system was found to be incomplete, disordered and, to a significant extent, obsolete.

Comments on the recent changes in the federal forest management. The recent reorganization of the federal forest management system — the merger of the Federal Forest Service (FFS) into the Ministry of Natural Resources effected through a Presidential decree signed in May 2001 — was also discussed and criticized in the

²⁶ As noted by some group participants, the notion of *overmature forests* is in fact only applicable to forests of an even age, while a major part of the Tomsk cedar forests are of uneven age. Thus, it is not entirely correct to speak about overmature cedar *forests* — one should rather speak of over-aged cedar trees or stands.

group. Group members all agreed on the necessity to preserve the integrity of the state forest management system in Russia. The reorganization decided by the President was therefore severely criticized. The FFS no doubt had many serious shortcomings, but these should rather be dealt with through careful reforms and not destroy the already existing functions that are working well. The federal forest management has already been through some 20 organizational reforms, many of them having serious negative consequences. It was noted that the recent reform was made in a typically “Soviet” manner and that it might be expected to produce much more destructive than constructive consequences.

Forest management and property rights issues. Some discussion in the group was also related to the legislative and juridical foundation of forest management. Issues like the existing division of forest lands into three management “groups”, forest protection categories, rules specifying requirements for final harvesting, etc., should be settled on the basis of fundamental decisions concerning forest property rights. Here group members agreed that, although all forms of property might be allowed, the region (and the country as a whole) was not ready to introduce broad private or municipal (common) ownership of major forest territories. This view was held for many reasons — reasons that might, however, soon change, such as the fact that private ownership is currently not able to provide effective protection of taiga zone forests, there is no middle class who might own these forests, and privatization will only generate more “oligarchs”, etc. However, the decisive reason expressed was that no country with any self-respect has the moral right to dissolve such a national wealth if it is not utterly necessary.

On the other hand, since the current situation can be expected to rapidly change, the issue of forest ownership should be further discussed. The question of a division of the forest lands between the federation, the region and the municipalities was considered especially pertinent — such a division would still preserve public ownership of the forests. This issue should of course be explicitly regulated in the federal Forest Code. An important task for a regional Forest Code would be to further clarify the regional forest property rights through better regulation of various actors’ access and rights of use. In this context the issue of community forests was also discussed. It was believed that this form of forest ownership/management might be suitable for Siberia and that it is worth further discussion.

In this context, it was felt that an especially important question for the Tomsk region concerns the cedar forests situated close to rural municipalities (*priposelkovie kedrovniki*). These forests, mainly used for cedar nut (*arekhi*) production, cover small areas, but a decision on their use would be very important for the rural population. This type of forest existed even before the 1917 revolution and it has demonstrated its vitality ever since.

The lack of market relevant information about the Tomsk forest resources. Group members also paid some attention to the issue of a sustainable forest management and its implementation in the Tomsk region. It was found that there is a need for a specification of criteria and indicators of sustainable forest management and these criteria and indicators should be corroborated through relevant legislative and normative acts. There is also a critical need to improve the quality and accessibility of information

about the regional forest sector. Such improvement requires a qualitatively new forest inventory and planning (*lesoustroistvo*) capable of generating the necessary forest monitoring information (in particular monitoring of forest fires) and the introduction of Geographical Information System (GIS) based methods at different levels, especially at the forest enterprise level, etc. The need for remote sensing information was underlined. Combined efforts at the federal and regional levels were considered necessary to make progress on these issues.

Social problems must be attacked. Finally, many social problems were identified in the discussion. Life in many rural settlements has always been based on forest related activities. With the current transition related crisis, the regional government must pay much more attention to the social and human problems that have emerged, especially in remote settlements. These problems concern, for instance, education and professional training. People's engagement in forest sector decisions is currently very weak, although this has been indicated as an important tool for the revitalization of the forest sector.

These and other topics of importance for a prosperous development of the Tomsk forest sector were discussed in the working group, but time was too short to expand on specific immediate measures that need to be taken in order to improve the situation.

Group 2 "The Forest Industrial Complex"

Group 2 assembled under the chairmanship of Dr. Alexander S. Sulakshin.²⁷ From the very lively and seemingly unstructured discussion that ensued in the group, an outside observer might easily obtain the impression that the task assigned to the group by the workshop facilitator was not taken very seriously. Being a rather small group the chairman did not enforce any strict procedures for the discussion. Everyone was free to express their opinions without asking to be given the word by the chairman. During the first half hour of the session it seemed that this lack of normal meeting discipline was going to result in a "show" where only a couple of the participants would be able to make their voice heard. However, after a while it was clear that everyone who wanted to participate in the discussion were also allowed (and even encouraged) to do so. In retrospect, it can also be seen that the "agenda" given the group by the workshop facilitator was by and large adhered to. The various stages in the discussion envisaged by the facilitator (cf. Figure 5) were in fact passed through, although in a rather random order.

The group chairman started the discussion by showing one of the final slides used in the IIASA team's plenary presentation containing a list of provocative (?) statements (Figure 6). He also briefly recalled the recent history of regional forest policy development in Tomsk. He mentioned the program that was developed by the forest

²⁷ All in all Group 2 had 10 participants (including the chairman). In addition, two persons of the workshop secretariat alternated to take notes. Of the 10 participants, 4 were representatives of the Tomsk regional forest sector organizations and enterprises, 3 were members of the IIASA team, 2 were collaborators from the IIASA study of Irkutsk, and 1 represented a federal forest industry research institute in Moscow.

organizations in the region in 1996–7 (Tomsk Oblast, 1997) and the OECD study ending in a conference in Tomsk in June 1997 (OECD, 1998). Together with the results from the present IIASA study, this should give a good basis for a discussion on how to improve the situation in the Tomsk forest sector and further develop the regional forest policy.



Figure 6: IIASA group's statements and questions concerning their consequences.

After this short introduction a lively discussion immediately took off. The main lines of the discussion are briefly outlined in the following paragraphs.

It is necessary to establish priorities. It was noted right at the outset of the discussion that it would be absolutely necessary to carefully prioritize the pressing issues that must be handled in order to make the Tomsk forest sector work better. Therefore this discussion ought to start with identifying the role of the forest sector in the Tomsk economy. The Russian transition crisis has severely manifested itself in Tomsk. The problems have to do with the production structure inherited from Soviet times (basic focus on forestry), they are related to the region's geographical location and the transportation system (in Soviet times distance was not considered a problem), they have to do with improving technology through investments (and funds for this are no longer allocated over the state budget). Since these are very difficult issues the discussion should aim at finding efficient priority among all the related problems and the measures needed to resolve them.

Small business should be encouraged. Group members from Tomsk gave various examples of problems facing managers/owners of small and medium-sized business enterprises (SMEs) in the region. It was noted that while a regional program exists for the support of small business, the existence of small enterprises in the forest sector has never been acknowledged thus preventing such companies to benefit from this support. One member of the group noted, however, that the volumes processed by small enterprises operating in the Tomsk forest sector were in general comparatively small. Thus, whatever happens in the SME sector cannot anyway change the overall picture of deep crisis in the regional forest complex.

Investments must be stimulated. Another member of the group, an SME owner and manager, noted that while he had no problems with marketing and selling his products both on the domestic and foreign markets there were other problems he found more pressing, such as the fact that no investment policy in Tomsk exists. This is a significant problem, especially for SMEs, since financing investments through bank loans is considered unfeasible by most SMEs. While today it is a stated goal for the government not to interfere in the economy, in this case the administration really should help in stimulating investments by removing obstacles for an efficient functioning of the banking system and perhaps by granting investment guarantees that might be used by companies as security for investment loans. As it is today, there are virtually no investments made by Tomsk forest sector enterprises. In a classification of “investment attractiveness” Tomsk today occupies 64th place while, for instance, neighboring Novosibirsk is found in 13th place.

Provisions should be made to alleviate the negative effects of the taxation system. Group members all agreed that the present taxation system is a serious obstacle to developing a sound business life. Although there are too many and often contradicting taxation rules — rules are also changing too frequently — good implementation practices might in principle help improve the situation. So, for instance, it was suggested that tax inspection should not be allowed to review new forest companies for at least three years, until their activities had been firmly established. This would give new companies enough time to build sufficient strength to meet all society’s obligations.

The infrastructure must no longer be neglected. Most group members complained about the inflated railroad tariffs and the neglect of road maintenance. Since forestry is one of the main sectors in the Tomsk regional economy and the region occupies vast territories, the currently extremely high railroad tariffs constitute an especially difficult obstacle for development of the sector. While, as someone noted, the railroad company will soon use international tariffs for the transportation of all goods, it might in the meantime be necessary — and this should be argued with the federal authorities — to introduce a regionally differentiated tariff policy so that crisis regions could get lower railroad tariffs.

The lack of qualified personnel has to be remedied. In spite of some measures taken lately to improve the situation, there are not enough qualified people available to work in the forest sector industries. This will probably remain a serious problem even when other problems have been solved. But no one seems interested in this problem. One group member, the manager of a large state company, said that no good people come to

work at his company anymore because the wage level was simply too low in comparison to other, more profitable sectors of the regional economy.

Potential local/regional wood markets are emerging. In Soviet times, the Tomsk forest enterprises used to ship their products to other parts of the Union. Today, this supply network (a kind of administratively established “market”) has entirely disappeared. But there is an emerging local and regional market for wood products. The industry has to orient itself towards these market segments.

Support of forest sector development is needed from the regional authorities. The issue of Soviet mentality was raised by one of the group members who wanted to provoke more clear thinking about public interference in private business life. Clearly, most economic actors today would not like to be constrained by the political system as was typically the case in Soviet days. Yet some people argue for a more active state interference in business life. Too active state interference would probably severely hamper foreign investments in the region. If foreign investments are really wanted it should be obvious that control of the enterprises would also have to be ceded to some extent.

Another group member, while not really objecting to what had been said, added that after privatization production volumes in the forest sector dropped by 90 percent but now the region was supposed to manage on its own without support from federal authorities (“there used to be a special ministry and a whole machinery working on the issues that we are discussing at this meeting”). Today, there is a forest sector department in the regional administration that tries to keep itself informed about what is going on in the sector, but does nothing to help enterprises with marketing, etc. This necessitates the establishment of large state-owned and state-run holding companies that are able to obtain funds made available for forest sector restructuring by the federal organs. This is especially necessary in Tomsk since here there are a number of unprofitable large harvesting and forest industrial enterprises that constitute the backbone of entire municipalities. Unless something is done to improve the competitiveness of these enterprises, severe social problems of unemployment, etc., will arise. So there is definitely a need for state interference in a region such as Tomsk. But, since there is no “coordinating organ” in Russia today, people in the sector must start to look after their own business.

Several members of the group pointed to the fact that in many other Russian regions (one example being the Komi Republic) the forest sector receives strong support from the regional authorities. Here, incentives have been created for forest enterprises to restructure and reorient their production.

It was also stated that rules affecting the Tomsk forest sector clearly do not equally apply to all actors. One example that was mentioned was the procedure for allocating forest plots between users. There was also agreement among the participants that a Regional Forest Code should be developed for Tomsk Oblast.

Rounding up the discussion the group chairman noted that there had been talk about many problems, only some of which could — and should — be resolved at the federal level, while other problems (like investments, taxes, transportation, personnel, social

problems, public guarantees in support of new initiatives, etc.) should preferably be handled on the regional level. One of the group members structured the issues discussed during the group session on the basis of a slide used in the earlier plenary presentation by the IIASA team (the slide illustrated the sharp border line that should exist between matters to be attended to by the public sphere and those that should be dealt with by civil society).

The group eventually came up with the following priority listing of the most important problems facing the Tomsk forest sector:

Top priority issues:

- There is no investment policy for the Tomsk forest sector. This should be changed.
- The existing taxation policy must be revised.

High priority issues:

- The acute infrastructure problems (especially with respect to railroads, but also road and water transport) have to be solved.
- Economically motivated stumpage fees should be used.
- The role of the state (e.g., the Department of the Forest Industrial Complex in the regional administration) should be decided.

Important issues:

- Support of small business companies in the regional forest sector should be developed.
- Price formation and marketing of wood products should be settled.
- The raw material orientation of forest production should be changed.
- Old or obsolete machinery and technology still in use in the Tomsk forest sector should be replaced.
- Different rules of the game apply to different actors. This is unacceptable.
- A regional export-import policy should be developed.
- Economic free zones should be established for crisis regions like Tomsk.
- Lack of personnel (right amounts and right qualifications) constitutes a serious problem for the regional forest sector of Tomsk.
- Social problems due to forest sector difficulties need to be resolved.
- There is a need for a Regional Forest Code.

The group did not have enough time to engage in any detailed discussion of the most appropriate methods to start to resolve the problems mentioned in the priority list.

2.3.3 The final plenary session — debriefing

A final plenary session, jointly chaired by Peter Duinker and Vladislav Vorob'ev, was held in the afternoon of the second day of the workshop. The session started with the two group chairmen (Vladislav Vorob'ev and Alexander Sulakshin) each giving a brief account of what had been discussed in their respective working groups. (Since an extensive summary of what was said in these groups has already been provided, no further comments on the debriefing session are added here.)

Immediately following the two chairmen's summaries there was a general discussion for about two hours before the workshop formally ended. Some critical cautions were

expressed, for instance, with regard to the contents of the discussion (“not much has actually been said about institutional issues”), to the fact that it should be carefully observed that policy measures working in established market economies might not work well in Russia (“there is still a large difference between our firms and firms in the West”). Comments were also made on the ongoing discussion about changing the forest group classification (and related property rights) so that Group I forests should remain owned by the federal state while the ownership of Group III forests might be transferred to regional state organs (regional administrations). Forests, currently belonging to the agricultural sector, might be transformed to community forests and there is also talk today about establishing private ownership of certain forest lands. These issues did not receive much attention by other workshop participants, but the general sentiment seemed to be that such discussions were welcome whatever their final outcome might be.

Several workshop participants raised issues concerning ways to continue the work started at this workshop to refine the analysis of the problems and further elaborate suggested measures to cope with these problems. One suggestion was that the workshop secretariat should present the results of the discussions to the regional administration and ask that the conclusions reached be taken into account in its future efforts to improve the workings of the sector. The chairman made it clear that contacts had already been made to this effect with the relevant officials in the regional administration. As a matter of fact, a delegation representing the workshop organizers had already been invited to summarize the discussions for the head of the Department of natural resources in the regional administration.

Session chairman Vorob’ev also announced that there were plans in the regional administration to establish a kind of reference group for forestry and forest industry issues. (Vorob’ev himself had been asked to chair this group.) This news triggered some exchange of opinion as to whether it would be a good idea to try to influence changes in the regional forest policy by working in a group affiliated (or even instituted) by the regional authorities, which, in fact, is the counterpart that stakeholders in the forest sector should try to influence (lobby) in order to achieve support for various reform measures. Clearly this setup raised concerns of double loyalty. It was felt that such a group should stand entirely free from government influence. In this kind of context, having to do with policy formation, the question was raised whether such a stakeholder group should be related not to the state organs (in this case the regional administration), but rather to the parliamentary structure (e.g., the regional Duma’s Committee on economic policy). It was noted that the tendency to always turn first to the administration rather than to elected bodies of the state power is a remnant of old Soviet behavior (in fact, when the old system was turned over, regional administrations were formed on the basis of the regional party organization). Today, however, decisions in society, for instance those concerning budget expenditure, must be discussed and approved by the regional Duma. Thus, it would seem natural that formulating a regional forest policy with the participation of regional forest stakeholders should primarily seek the support (or one way or another affiliate itself) with the political representational system — the parliamentary structure — rather than the state executive.

The workshop ended with the participants delegating full authority to the workshop organizing committee to produce a document (declaration) reflecting the outcome of the intensive discussions in the policy exercise during the last two days.

2.3.4 Follow-up meeting: The final document

On the next morning (16 June 2000) the IIASA team met with the local organizers to discuss the contents of the final workshop document. A representative of the regional administration (Mr. Dunaev, deputy head of the Forest Industrial Complex department) as well as the chief forester of the regional forest management (Mr. Vladimir A. Bykov) were also present at the meeting. Two groups were formed to identify and agree on a number of issues to be included in the final document. One group primarily dealt with issues discussed the previous day in Group 1 and the other with issues discussed in Group 2.

The representative of the regional administration expressed his regrets that he was not able to take part in the workshop due to other obligations. He informed us that regional authorities were going to discuss the forest sector program at the end of June. The regional program developed for the forest sector four years ago (cf. Tomsk Oblast, 1997) needed to be revised in view of the changes affecting the sector during the last three years. Not much had changed as a result of the program and the task was now to find out why. Various causes were discussed in the policy exercise. The administration was therefore interested in hearing the views of the participants in the workshop. Specific and precise suggestions would be very valuable.

The format of the final document was discussed and it was agreed that a fairly short document (3–4 pages) would be most suitable for the purpose. It was agreed that the text should contain a preamble explaining the context of the meeting and its background (IIASA's study) and it should then simply list the most important problems that were identified as obstacles for positive development of the regional forest sector. Finally, it should list recommendations for actions considered to be the most important for improving the situation in the sector.

The two groups gathered separately for the remaining two hours until lunch to list issues that were considered essential for inclusion in the final document. After lunch, the task to work out a draft of the document based on the result of the discussions in the two groups was delegated to a small "editorial committee"²⁸ that managed to produce a first draft of a final document before the day was over.

Directly after lunch, however, a delegation representing the policy exercise participants²⁹ paid a visit to the Tomsk regional administration and had a meeting with

²⁸ The editorial committee consisted of Vladislav Vorob'ev, Alexander Sulakshin, Anatoly Shvidenko and Mats-Olov Olsson.

²⁹ The delegation consisted of six people, three members of the IIASA team, Peter Duinker, Mats-Olov Olsson, and Anatoly Shvidenko, and three representatives of the regional forest stakeholders, Vladislav Vorob'ev (forest research), Alexander Sulakshin (forest industry), and Vladimir Bykov (forest management).

the Head of the Department of natural resources and the oil and gas complex, Mr. Valentin P. Demidov, to inform him about the outcome of the policy exercise workshop.

The draft final document was further elaborated and modified during the late summer and autumn. The momentum of the process was hampered by summer vacations and other obligations on the part of the editorial committee members. During the autumn the draft version of the document also went through several iterations between the IIASA team and the workshop organizers in Tomsk and a final version was not agreed upon until towards the end of the year. The document (in a Russian as well as an English version) was signed only in January 2001. However, very soon after the exercise a copy of the draft document was presented to the Tomsk regional administration to form (part of) the background materials in preparation for a meeting with the regional State Duma in July. (Appendix 4 is a copy of the final document.)

2.3.5 The Tomsk policy exercise in retrospect

Through personal communications (email) and copies of proposals worked out in the regional administration as well as newspaper articles sent to us soon after the meeting by our main coordinators (Professor Vorob'ev and Dr. Sulakshin), we have been able to (tentatively) assess to what extent and in which manner the discussions in our policy exercise exerted influence on the development of a future forest policy in Tomsk.

Only about a week after the end of the IIASA policy exercise a group composed of workshop participants was reported to have started work on revising the 1997 sustainable forest development program (cf. Tomsk Oblast, 1997). This was an important move in order to bring the issue to the attention of the Tomsk Government and State Duma meeting later during the summer.

The work (which had already been initiated in Tomsk at the time of our workshop) to develop rules for a reopened harvesting of the region's cedar forests stands was further supported in July by the federal forestry organs (the former FFS, now a department in the Ministry of Natural Resources).

Both the revision of the Tomsk forest sector development program and the development of rules for the harvesting of cedar forests in Tomsk were noted in a draft resolution to be adopted by the Governor of Tomsk concerning immediate measures to be taken to stabilize the Tomsk forest sector in the years 2000–2002. In this document, a number of measures are listed that were also discussed in the IIASA case study report on the Tomsk forest institutions (cf. Carlsson and Olsson, 1998; Carlsson *et al.*, 1999) or were discussed at our June policy exercise and mentioned in the final document from that event (cf. Appendix 4).³⁰ Among the measures listed in this draft resolution the following is noted:

- To complete the formation of large vertically integrated holding companies,³¹ including state participation;

³⁰ IIASA was explicitly mentioned under one measure suggested in this draft.

³¹ The document actually says “structures”.

- To create an advisory council on the problems of the forest complex under the auspices of the Head of administration (Governor) of the region, including representatives of forest management, forest sciences, forest education, and environmentalists;
- To revise the regional program “Sustainable development of the forest industrial complex of Tomsk Oblast on the basis of a rational forest utilization and further processing of the forest produce” and present it for consideration to the State Duma of Tomsk Oblast;
- To revive the activity of the Union of Tomsk forest industrialists (to select a managing director);
- To confirm the temporary rules for interim harvesting of cedar forests in Tomsk Oblast with the FFS and develop ways to implement those rules;
- To prepare, together with IIASA, proposals to include Tomsk Oblast in international studies concerning (a) the quota system of carbon disposal within the framework of the Kyoto protocol, (b) to include Tomsk in the UNESCO World Heritage List on account of the many monuments of wooden architecture, and (c) research on the institutional embedding of the forest complex;
- To finalize the transfer of social facilities and housing to the municipalities (relating to a federal government resolution from 7 August 1993, No. 235);
- To conduct financial analysis of the regional forest enterprises to determine (a) which ones are viable and take measures for their reconstruction, and (b) which ones are non-viable and facilitate their exit from the market;
- To compile regional and municipal orders for forest products, to speed up the development of the intraregional market through stimulating housing construction (including private housing);
- To establish a system for the training and retraining of personnel for the Tomsk forest industrial complex; and
- To develop and present to the Tomsk State Duma a draft Law “On the Tomsk Forest Complex” in which the legislative solutions to some of the problems hampering the forest industrial complex are elaborated, such as: (a) extending tax exemptions to large harvesting and processing companies corresponding to the share paid to the regional budget and the regional road fund; (b) granting delays in the payment of stumpage fees corresponding to the part paid to the regional budget; (c) reducing stumpage fees when forest saving techniques and harvesting technology is introduced; and (d) the possibilities of using leasing rights of forest plots as guarantees for investors.

So far, there is no information available on the implementation of the measures listed in this governor’s resolution.³²

³² It seems, in fact, that the draft resolution was never formally adopted by the Governor. (At least it was never listed among the adopted resolutions on the administration’s web page at <http://www.tomsk.gov.ru/>.) But even if it was never formally adopted, it demonstrates that our policy exercise made an impact on the ongoing discussion among the Tomsk forest sector stakeholders in their efforts to develop a

There was also some media coverage of the policy exercise workshop at the time it took place and soon after. A few relatively large articles appeared in regional newspapers during the summer months.³³ In most cases these articles were based on an interview with a prominent regional forest stakeholder (for instance, some of the articles featured Professor Vladislav Vorob'ev, the local coordinator of the workshop) voicing some of the most pertinent recommendations to be extracted from the workshop discussions. One article (see footnote 33, article 2) gave a fairly accurate summary of the main findings in the IIASA study of the institutional embedding of the Tomsk forest sector. In another article, which was formed as a dialogue between the journalist and Professor Vorob'ev, the reporter questioned the motives of the foreigners who have been appearing in Tomsk of late seeking information about the region's forest sector (see footnote 33, article 3). In his reply, Professor Vorob'ev explained that the scientists from the West, with whom they were currently working, had a serious scientific interest in the processes of transition currently going on in Russia. But he also cautioned that Russia should not give away vital information about its resources to the sole benefit of competitors on the international arena. It is vital to keep collaboration on equal terms to the benefit of all parties involved. In a review article published two months after the policy exercise (see footnote 33, article 4), the concluding section referred to the "productive symposium" that was recently held in Tomsk and listed several recommendations made by workshop participants as important measures that would have to be taken in the near future to significantly improve the functioning of the regional forest sector.

3 Concluding Remarks

3.1 Effects of a Policy Exercise for Russian Forest Sector Stakeholders

In organizing a policy exercise for forest stakeholders in Russia we expected to encounter a number of more or less serious problems but, more importantly, we also expected it to produce some important positive effects.

regional forest policy. A subsequent resolution adopted by the Governor of Tomsk confirmed an earlier endorsement by the FFS of 26 July 2000 that had opened the cedar forests for intermediate harvesting (Postanovlenie, 1 January 2001, No. 1). These temporary rules are currently implemented in experimental cedar harvesting in Tomsk, as the only region in Russia (as was mentioned in a recent newspaper interview with Mr. Alexander N. Monin, the current head of forest management, which is today a division inside the committee for natural resources of the regional administration, cf. *Tomskii Vestnik*, 14 September 2001). Through another resolution (Postanovlenie, 29 January 2001, No. 26) a tender invitation was issued for the development of a comprehensive regional development program for the Tomsk forest sector in the period 2001–2010.

³³ Four articles reached IIASA: (1) "How to overcome the crisis in the regional forest industrial complex", *Tomskii Vestnik*, 14 June 2000; (2) "A Swedish View on the Tomsk Forest", *Tomskii Vestnik*, 20 June 2000; (3) "Vladislav Vorob'ev, director of the Tomsk Branch of the Forest Institute Siberian Branch of the Russian Academy of Science: 'To simply shout: 'Don't touch our forest, don't harvest cedar!' is unprofessional", *Piatnitsa*, 6 July 2000; and (4) "Reefs of the forest economy; The development of the regional forest industrial complex must not become a fairy tale", *Tomskii Vestnik*, 25 August 2000.

Participatory methods are of central importance for formulating policies in modern market economies, the foremost reason being that policies become better if stakeholders (who are also often going to implement the goals laid out in the policies) are in fact engaged in the process of their development. Even if the Soviet legacy has delayed the development of pluralistic (democratic) policy formulation methods in Russia, it is today high time to stimulate participatory reforms in policy making. This is important because of its impact on the democratic process in Russia as well as on the quality of the formulation and implementation of specific policies. The primary objective of the IIASA exercise was to achieve tangible results in terms of a new policy or the process of developing such a policy.

Participatory methods in policy formulation might mean many different things. Here we have dwelled on our experiences with one method, the policy exercise, as a tool for reforming the forest policy of a region in Siberia. The objective of the exercise conducted by IIASA in Tomsk was to have a small group of people, broadly and legitimately representing regional forest stakeholders (including NGOs, etc.) to engage in an open and honest discussion on prioritizing the institutional problems that hamper the development of forest management and the forest industry of the region and to start an activity aimed at identifying the most efficient ways to cope with these problems. In so doing, the group should be informed by both Russian and international expertise on institutional change and forest policy reform and it should widely advertise its work and the results obtained to the general public. After the end of the exercise, this broadly based public discussion on forest policy should be continued long enough to find and implement efficient — and generally acceptable — solutions to the problems. Successfully performing such a policy exercise would obviously bring tangible benefits to the development of the regional Russian forest sector.

However, implementing such an ideal policy process in a country facing all sorts of turbulence related to the profound on-going transformation affecting all aspects of the economy and society is of course no easy thing and a number of problems might be expected. The difficulty of the task should warn us against too optimistic expectations for success.

As organizer, the major concern for IIASA was to identify a local problem and task “owner”, i.e., a person, a group of people, or an organization who would be willing and legitimately able to take on the challenge to lead the process to search for solutions to the problems discussed during the exercise and continue the work after the event. For practically dealing with this challenge we needed a competent and energetic local organizer and a good workshop facilitator.

A crucial question was if a process such as the one proposed by IIASA — a workshop instituted not by the regional forest stakeholders themselves, but by a foreign research organization largely operating with the help (and at the mercy) of the regional power (i.e., organized from “above”) — would not be compromised in the eyes of the potential participants right from the outset.

Another problem has to do with the fact that the transition process in Russia has been much slower to implement than originally expected. This also means that people’s mentality has not changed to the degree that was expected. In fact, the transition has

created new cleavages in the Russian society, enriching a few and impoverishing the many. This “historical legacy” from the Soviet era tends to make people refrain from engaging in political activities thus leaving public policy decisions in the hands of public and private “decision-makers”. At the same time, people continue to express complaints against “the system”, a general abstraction that will not listen to any complaints, much less do something about them.

It was therefore unrealistic to assume that new pluralist approaches to policy making should immediately work smoothly in the Russian context. The first challenge was rather to find a *suitable form* for such policy making. In this situation sanctions from “above” to try out participatory methods are no doubt necessary.

The fact that various actors in the Russian forest sector have different objectives and different “cultures” of natural resource utilization could be expected to cause heated arguments among participants in the policy exercise. The important thing was to design the policy exercise to be robust to cope with conflicting interests so that it might produce the desired outcomes, even in the face of differences of opinion among the participants.

Finally, it could be expected that the Russian participants in our exercise would be somewhat bewildered as to the objectives of IIASA in undertaking to organize this event. Such hesitation might also exert a negative influence on the workshop process and outcome. The fact that it took a long time before we finally got the workshop going might also have caused problems with regard to people’s motivation, etc. Some of the momentum of the process might have been lost due to these delays.

So much for the benefits and problems to be expected from an event like this. Let us now try to assess what actually happened.

3.2 Assessing the Process and Its Outcome

In retrospect, one could say that by and large the practical arrangements of the Tomsk policy exercise were quite satisfactory, basically dodging all fears one might have had before the event. There was a local/regional “problem owner”, many people took an interest in the exercise, the discussions were lively and productive, the outcomes of the discussions were articulated, and they were paid attention both by the regional authorities and by the press. In fact, the representatives of the Tomsk regional administration who were present at the opening of the exercise expressly wished for concrete advice and recommendations on “how to improve harvesting” in a sustainably efficient way. Perhaps the aspirations of the regional authorities were too high, expecting solutions on this truly complex issue (which actually amounts to solving the “market problem”, i.e., finding answers on how to produce a product of the right quality at a price which makes it sufficiently attractive for customers to buy, while at the same time covering production costs and ensuring a reasonable profit). The interest from the stakeholders and the public authorities indicates that there truly was a demand for our policy exercise, even if expectations on the ability of such an event to actually find solutions to these really complex problems might have been unduly exaggerated. The fact that we found a good local organizer, an experienced facilitator, excellent Russian-

English interpretation support, and an efficient secretariat were other factors that contributed to making the Tomsk policy exercise a successful event. All of this has been previously described in some detail in this report.

However, this overall positive assessment should be qualified in a number of ways. The most obvious qualification refers to the participants, their number and the composition of the group. While there was a fairly large crowd attending the initial plenary session, only very few stayed on to actively participate in the group sessions. The size of the group present for the group sessions allowed only two working groups, one dedicated to discussing forestry issues, and the other to discussing forest industrial issues. Furthermore, the people remaining to participate in the group session only represented certain forest stakeholder interests, the most notable under-representation being the managers of regional forest industries. This was a serious shortcoming, since the interests of people engaged in the forest industry necessarily will have to guide the formulation of a future modern forest sector policy in Russia. Another category of stakeholders that did not take an active part in the discussions was the representatives of the regional power (the Tomsk regional administration and the Tomsk state Duma). An obvious reason that could, at least partly, explain the notable absence of these stakeholder groups was the recent reorganization of the federal forest management, abolishing the Federal Forest Service and incorporating its functions into the Ministry of Natural Resources. This measure, unexpectedly taken by the Russian president only a couple of weeks before the start of our policy exercise, came as some kind of a shock to the Russian “forest establishment” and many sudden events triggered by the change prevented several Moscow based would-be participants in our workshop to come to Tomsk. As a consequence, with several high-level “forest officials” not coming, the interest of some regional forest stakeholders for our workshop discussions seems to have been drastically reduced.

Turning next to an assessment of the group sessions and the discussions and outcomes of the policy exercise, there were a number of intended positive features worth noting. The initial plenary presentations and discussion did in fact generate a set of problem issues (cf. Section 2.3) that were actually discussed in the subsequent group sessions. The discussion during the groups was lively and in many ways constructive. The problems discussed and the ideas about the causes of the problems and the measures required to start attacking the problems were eventually summarized in a final document reflecting the opinions of the policy exercise participants (cf. Appendix 4).

The quality of these deliberations is difficult to assess, depending as it does on the people participating in the event, and, as we have already noted, we did not get the optimal set of participants, neither in terms of numbers nor in terms of group composition. There is just no way to judge what kind of discussion we would have had with another set of participants, comprised of a better balanced sample of forest stakeholders interests.

With this proviso, we can only try to sum up what were, in our opinion, the most important and interesting thoughts that were expressed on the current situation in the Tomsk forest sector and the necessary measures to be taken to improve this situation.

To the IIASA group of researchers it was striking that for a meeting concerned with institutional shortcomings the concept of “institutions” was hardly ever referred to explicitly. A substantial part of the discussion rather concerned the biophysics of forest management and other seemingly “non-institutional” matters. But even if they were not explicitly addressed as institutional issues many questions, which are largely dependent upon institutional arrangements, were in fact discussed. It seems that the manner of discussing these issues is a reflection of the fact that participants were not accustomed to phrase their views in policy relevant terms. Most participants were forest professionals primarily interested in concrete issues related to forest management or forest industrial activities, or scientists mostly engaged in the technical aspects of forest management with only limited experience of formulating such issues in a policy relevant way. Only very few participants were politicians and among the academics there were no political scientists.

Nevertheless, looking at the topics discussed in the group sessions — and how they were discussed — one could clearly see how most issues were regarded as dependent upon, or related to, issues belonging to the sphere of state power, questions decided upon by the federal or regional administrations, the federal or regional parliaments (the Duma), in short, political or policy related issues.

- Looking, for instance, at the topics discussed in the two groups — the problems rather than the suggestions for solutions as time did not allow any really topical discussion of correction measures — one finds that the problems identified were clearly related to dysfunctioning institutions or institutional deficits.
- The problem concerning the harvesting of Siberian cedar forests was not seen as only, or even primarily, related to environmental issues, but rather to forest management, the needs of the forest industry and legislation, and the need to abolish the old ban on cedar harvesting.
- The low level or lack of investments in enterprises was seen as depending on the insufficient institutional framework embedding the operations of banks and financial institutions, and the regional authorities were called upon to remedy this problem through the creation of an investment policy, making provisions to support or complement the banks’ funding of investment projects.
- The malfunctioning taxation system was another crucial problem discussed, and this issue was also looked upon in an institutional perspective, where issues did not so much concern how enterprises should be able to pay or avoid paying their taxes, but rather on how the tax system ought to be reformed so that the public sector could generate the necessary income while not destroying all opportunities for profitable business. Stumpage fees, another kind of tax, were also discussed and it was observed that these fees, like the Annual Allowable Cut, must now be set with a view to what is the *economically* feasible level of harvest.
- The deficient infrastructure was discussed and the focus was not primarily on the construction of new transportation routes, but rather on how the operation of the existing infrastructure might be modified (e.g., reduced railway tariffs) to become better suited for the needs of the forest industry.

- The role of the State in the new economic context was also discussed. While there was a clear recognition of the fact that the system has now changed and that today companies have to manage on their own, the state, nevertheless, must accept its responsibility to remedy the legacy of the Soviet era with its weird production structure due to the “planned irrationality” of the Soviet production system. At the same time, it should be made clear that this does not mean going back to state control. Foreign investors will be difficult to attract if this is not completely clear.
- Property rights issues were also raised in the discussion. The division of forest ownership between the federal, regional, and municipal levels should be clarified. Community forest management should be tested and private ownership of forest lands might be discussed (possibly in connection with a reform of the group classification now in use).

Finally, venturing at least a tentative assessment of the impact made by the IIASA policy exercise on the reformation of forest institutions in Tomsk Oblast, there are of course some facts worth noting (cf. the end of Section 2.3). The policy exercise was, in fact, possible to organize more or less in the form envisaged by the IIASA team. Forest stakeholders actually did take part in the event actively engaging in a discussion of the institutional problems facing the Tomsk forest sector. Furthermore, there was a clear message from the workshop expressed (even if belatedly) in the final document (cf. Appendix 4) and communicated to the regional authorities and through the media to the general public. All this proved that the policy exercise concept is indeed applicable in the Russian context. This is an important result since the Tomsk event was a kind of test that would bring useful experiences for the coming policy exercises in other Russian regions.

However, we have no way of knowing if and to what extent our policy exercise actually affected the functioning of the Tomsk forest sector. The fact that the text of a gubernatorial decree heavily drawing on the process and outcomes of the exercise was in fact prepared might indicate that at least some stakeholder groups were affected by the experience. However, since it seems that this decree was never finally adopted by the Gubernator we cannot point to any concrete public decisions on institutional reform.

What we can point at, however, is the *final document* produced at the request of the policy exercise participants by a small editorial group (cf. Section 2.3). The Russian participants in the exercise considered this document an important outcome of the workshop. The document (both in a first rough draft version and in its later more elaborate form) was also communicated to the regional authorities and it seems to have been used in the newspaper articles appearing after the exercise. It should also be noted that most issues that the policy exercise participants found important have been expressed in this document. Thus, in this respect it constitutes a real and important outcome of the exercise.

As it turned out, some of the participants in our workshop also became engaged in the forestry advisory council that was subsequently established within the regional administration. It may therefore be assumed that the views articulated through the policy exercise were made the subject of further discussion in this council.

In summary, it seems fair to say that the policy exercise organized by IIASA for forest stakeholders in Tomsk made a modest contribution to the reformation of the institutional embedding of the Tomsk forest sector and it might also be said to have made some contribution to the “modernization” of the previously existing mode of policy formulation. In general, the exercise was a learning experience for all involved, the Russian forest stakeholders as well as the foreign policy experts. For the IIASA team this learning experience made an imprint on subsequent policy exercises organized in other Russian regions.

The policy exercise in Tomsk also testifies to the permanence of problems caused by the large geographical distance between central Siberia and central Europe, where communication presented a serious obstacle in spite of the fact that electronic mail is now also readily available in remote Russian regions. It was also an illustration of the significant difference in political culture that still exists between Russia in transition and the modern capitalist economies of the West. In Russia, pluralist and participatory methods of policy formulation are a much more striking novelty than one would perhaps expect after a decade of transition towards a market oriented system.

The experience gained from the Tomsk policy exercise workshop immediately showed that IIASA’s initiative to approach the policy deficit problem in the Russian forest sector through this form of participatory action really works. By and large, the Tomsk workshop was met with enthusiasm both from the regional administration, from a large share of the forest business enterprises and forest management organizations, and from existing (traditional, but often newly reformed) forest sector organizations. We see this as an indication of the fact that stakeholders in the forest sector today are well aware of the serious shortcomings of the official Russian forest policy currently in operation. They now realize that profound institutional changes are required to achieve a sustainable improvement of the situation. Our experiences also indicate that modern participatory methods of policy formulation, which are advocated by international organizations, such as the UN and the World Bank, are appropriate and well suited for the Russian situation.

3.3 The Way Ahead — Improving the Impact of Future Policy Exercises

In conclusion, some words should be said about what the Tomsk policy exercise taught us concerning possible improvements of the design and performance of future exercises in other Russian regions.

While we can see that the basic policy exercise concept seems to work in Russia, there are of course a number of things that might be changed to increase the chances of such an arrangement to produce tangible results.³⁴

- When thinking about the results of an event such as this, it is important to realize *the role of prior expectations*. The consequences of this statement were clearly illustrated by the IIASA team, which mostly consisted of people with long and

³⁴ The following ideas are based on views expressed by the IIASA team after the Tomsk policy exercise.

profound experience of Russian developments, but also of some people who had only a very limited experience of the country. When these people's impressions of the Tomsk event were compared, it was obvious that those with prior experience of Russia normally did not have very high expectations on the success of the endeavor and they consequently thought that the exercise worked quite well. Those with only limited experience of Russia, on the other hand, tended to be somewhat disappointed with the outcome, probably due to their initial (and perhaps too high or unrealistic) expectations. Evidently, expectations play an important role for the perception of the results. It is important that expectations of what might be accomplished through a policy exercise of this kind be realistic.

- Our experience with the Tomsk event also indicates that this kind of policy exercise requires a long lead-time for preparations. An ideal lead-time might be something like 4–6 months. Depending on the fact that participatory intervention in Russian policy making still is unfamiliar, it is also necessary that IIASA, in its capacity as initiator, funder, and “driving force” behind the exercise, take firm control over the program design and overall organization.
- A recurring comment by the IIASA group after the Tomsk exercise was that IIASA should have more control of the choice of participants. This is of course true, but to exert this control is difficult. Presumably, a local organizer will have to be found who has a good understanding of the objectives of the policy exercise and who really agrees (and is allowed) to work for the “common good”, that is, a person who is free from prior commitments to specific forest interest groups.
- Apart from attracting a group of people composed of a balanced sample of the existing “forest interests”, it is also essential to attract “high level persons” both from the public and the private “forest sphere”. Having high status people in the forest sector participate would automatically attract other important forest actors to the workshop. Finding good agents for change could, however, be expected to be difficult. Who has incentives to try to change the institutional framework in the desired direction in today's Russia? Stakeholders from outside the narrowly defined forest sector (like environmental NGOs) should be invited to participate in the exercises.
- It was also felt that it is crucial to explicitly and carefully state the objective of the policy exercise already at the outset. In fact, this has to be already explained in the invitations to the participants. The “end product” of the exercise should be clearly specified. Candidates for such end products are (a) formulation of the most important institutional problems besetting the regional forest sector, (b) thoughts on ways to cope with these problems, and (c) the designation of a (legitimate) group of people to continue the work initiated through the policy exercise workshop.
- In order to facilitate the working group sessions it is important to find very receptive and efficient individuals to serve as chairpersons in the discussion groups. Ideally, these chairpersons should also be trained in advance by IIASA. It would also be good if Russian scientists participating in the policy exercise were not only brought from forest related disciplines, but also from policy related disciplines (e.g., political science, policy analysis, political economy, etc.).

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Appendix 1: List of Publications from the IIASA Project

The IIASA Forestry Project (FOR)

“Institutions and the Emergence of Markets — Transition in the Russian Forest Sector”

List of Publications

Chronological order as of 4 December 2001

All Interim Reports can be downloaded from the IIASA web site at URL: <http://www.iiasa.ac.at>.

IIASA Publications (Interim Reports)

- Carlsson, Lars and Mats-Olov Olsson, eds. (1998). *Initial Analyses of the Institutional Framework of the Russian Forest Sector*. Interim Report IR-98-027. Laxenburg, Austria: International Institute for Applied Systems Analysis.
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- Malmlöf, Tomas (1999). *Prospects for Ecological Sustainability in Russian Forestry; An Institutional and Historical Perspective*. C/D Extended Essay 1999:02, Department of Business Administration and Social Science, Division of Political Science. Luleå, Sweden: Luleå Technical University. (Based on the author's contribution to the IIASA Interim Report IR-98-027.)

Appendix 2: Program of the Tomsk Exercise

International Symposium

14–16 June 2000

INSTITUTIONAL PROBLEMS OF DEVELOPMENT OF THE TOMSK FOREST SECTOR

Tomsk Regional Administration

International Institute for Applied
Systems Analysis (IIASA), Austria

Institute of Forest of V.N. Sukachev, the Filial,
Siberian Branch of the Russian Academy of
Sciences

PROGRAMME – INVITATION

Tomsk

Dear _____,

We would like to welcome you to take part in an International Symposium on the Institutional Problems of Development of the Tomsk Forest Sector. The symposium will be held in the Filial of the V.N. Sukachev Institute of Forest of the Siberian Branch of the Russian Academy of Sciences, Akademgorodok, Tomsk, Russia, between 14 and 16 June 2000.

Objective and Tasks of the Symposium

The objective of the symposium is to discuss institutional problems relating to structural components of the forest complex and its organization to support a sustainable forest management and reproduction of forest resources.

Topics for discussion will be (a) the project performed at IIASA on the transition of the forest sector of Tomsk Oblast to a market economy, and (b) the main principles of the Regional Program on Sustainable Development of the Forest Industrial Complex in Tomsk Oblast.

One of the tasks is to create workgroups that will analyze the state of a number of problems and start to work on the realization of adopted solutions.

International experts and investigators, representatives of forest science, forestry, forest industry, ecological movements and forest businesses as well heads of federal, regional, and local organizations (both public and private) will take part in the symposium.

Main Problems for Discussion:

- ◆ Federal and regional aspects of the management of the forest complex in the period of state management of the market economy.
- ◆ Problems of property rights in the forest complex.
- ◆ Legislative and normative inconsistencies and collisions between forest management and nature protection.
- ◆ Problems of scientific and educational support of development of the forest complex.
- ◆ Ecological and resource provision for sustainable multi-purpose forest management.
- ◆ Problems of commercial inventory of forest resources.
- ◆ Technology and economy of reproduction of forest resources.
- ◆ Structure of the regional market, problems of marketing.
- ◆ Problems of the technological competitiveness of forest products and the efficiency of foreign economic activity of forest enterprises.
- ◆ Conditions of investments in the forest complex, development of investment projects.

Program Committee

Bystritsky, L.D. — Deputy head of the Tomsk regional administration responsible for industry, forestry and the oil complex.

Zinchenko, V.I. — Deputy head of Administration of Tomsk Region, head of Department of Education and Scientific and Technical Policy.

Tuchvatulin, R.T. — Deputy head of the Department of Natural Resources and the Oil and Gas Complex.

Krutikov, V.A. — Chairman of Presidium of Tomsk Scientific Center of SB RAS.

Monin, A.N. — Head of Tomsk Forest Office.

Matvienko, G.G. — Director, Institute of Atmosphere Optics, SB RAS.

Organization Committee

Olsson, Mats-Olov — Co-chairman (IIASA).

Vorob'ev, V.N. — Co-chairman (Tomsk).

Velisevich, S.N. — Secretary (Tomsk).

Sulakshin, A.S. — Tomsk.

Address for Correspondence

Institute of Forest, the Filial, SB RAS

Pr. Akademichesky, 2

634021, Tomsk

Phone: +7 (3822) 258986, +7 (3822) 258855

Fax: +7 (3822) 258855

E-mail: root@ienc.tomsk.su

SCHEDULE for the SYMPOSIUM

Tuesday, 13 June

Arrival, hotel “Oktjabrskaja”.

15.00 Acquaintance of participants, work council of Symposium organizers (Akademgorodok, Home for scientists).

Wednesday, 14 June

9.00–10.30 Building of the Institute of Atmospheric optics (Akademgorodok).

1. Introduction and welcome of leading participants from IIASA and Russia (30 minutes).
2. Anatoly Shvidenko, deputy leader of the IIASA Forestry Project, speaks about IIASA and its research on forestry (30 minutes).
3. Peter Duinker, main facilitator of the Symposium, explains the goals and means of the exercise (20 minutes).

10.30–11.00 Coffee/tea break

11.00–12.30 The IIASA study on the institutional embedding of the Russian forest sector is presented by the IIASA research team.

12.30–14.00 LUNCH

14.00–15.00 The IIASA study on the institutional embedding of the Tomsk forest sector is presented by the IIASA research team.

15.00–15.30 Coffee/tea break

15.30–17.30 Plenary session lead by Peter Duinker and Vladislav Vorob'ev

1. The regional program “Sustainable development of the timber industry complex of Tomsk region” is presented by the research team of Tomsk.
2. Discussion. The purpose is to identify what the Russian participants see as the main problems besetting the forest sector in Tomsk.

Thursday, 15 June

- 9.00–9.30 Plenary session lead by Peter Duinker and Vasily Chomin.
Peter Duinker presents a synthesis of the problem set and establishes a number of working groups in which the Russian participants will discuss the problems.
- 9.30–12.30 Group work/discussions among the Russian participants.
- 12.30–14.00 LUNCH
- 14.00–15.00 Representatives of the groups inform about the outcome of the discussions in their respective groups (“debriefing”).
- 15.00–15.30 Coffee/tea break
- 15.30–16.30 Debriefing session, continued.
- 16.30–17.30 Discussion.
- 17.30–18.00 Closing of the policy exercise. Forming of working groups for continued work on solving identified issues.
- 19.00– Joint dinner.

Friday, 16 June

- 9.00–10.30 The IIASA team meets with representatives of the various working groups (one at a time) to discuss the plans for their work.
- 10.30–12.00 The IIASA team meets with the local organizers to sum up the experiences of the policy exercise.
Visit of the inter-region fair “Forest, Wood working, Furniture–2000”.
Departure of the IIASA team and outside Russian participants.

Appendix 3: List of Participants

Participants in the International Symposium on the “Institutional Problems of Development of the Tomsk Forest Sector”

Tomsk, 14–16 June 2000

Foreign Participants		
Carlsson Lars	Ass. Prof. Division of Political Science, Department of Business Administration and Social Science, Luleå University of Technology	Luleå University of Technology, SE-971 87 Luleå, Sweden Phone: +46 920 91814 Fax: +46 920 72223 Email: Lars.Carlsson@ies.luth.se
Duinker Peter	Professor, School for Resources and Environmental Studies, Dalhousie University	1312 Robie street, Halifax, Nova Scotia, Canada B3H 3J5 Phone: +1 902 4947100 Fax: +1 902 4943728 Email: pduinker@is.dal.ca
Lundgren Nils-Gustav	Professor, Division of Political Science, Department of Business Administration and Social Science, Luleå University of Technology	Luleå University of Technology, SE-971 87 Luleå, Sweden Phone: +46 920 91954 Fax: +46 920 72223 Email: Nils-Gustav.Lundgren@ies.luth.se
Nysten-Haarala Soili	Research Scholar International Institute for Applied Systems Analysis (IIASA)	A-2361 Laxenburg, Austria Phone: +43 2236 807233 Fax: +43 2236 807599 Email: nysten@iiasa.ac.at
Obersteiner Michael	Research Scholar International Institute for Applied Systems Analysis (IIASA)	A-2361 Laxenburg, Austria Phone: +43 2236 807460 Fax: +43 2236 807599 Email: oberstei@iiasa.ac.at
Olsson Mats-Olov	Research Scholar International Institute for Applied Systems Analysis (IIASA)	A-2361 Laxenburg, Austria Phone: +43 2236 807346 Fax: +43 2236 807599 Email: olsson@iiasa.ac.at
Shvidenko Anatoly Z.	Research Scholar International Institute for Applied Systems Analysis (IIASA)	A-2361 Laxenburg, Austria Phone: +43 2236 807497 Fax: +43 2236 807599 Email: shvidenk@iiasa.ac.at
Vasenda Sandra	Research scholar, Center for the Study of Innovation, Population and Environmental Change, Indiana University	408, North Indiana Avenue, Indiana University, Bloomington, Indiana 47408, USA Phone: +1 812 852230 Fax: +1 812 8552634 Email: svasenda@indiana.edu
Russian Participants		
Adam Aleksandr M.	Head of the State Committee for the Protection of the Environment of Tomsk Oblast	Tomsk, Russia Phone: +7 3822 Fax: +7 3822

Bekh Iosif A.	Ph.D. Agricultural Sciences, Senior Research Scientist, Institute of Forestry, The Filial, Siberian Branch, Russian Academy of Sciences	Akademicheskii Pr. 2, 634055 Tomsk, Russia Phone: +7 3822 258855 Fax: +7 3822 258855 Email: root@ienc.tomsk.su
Belov Vladimir V.	Dr. of Phys. and Math. Sciences, Vice-director for scientific work of the Institute of Atmospheric Optics, Siberian Branch, Russian Academy of Sciences	Pr. Akademicheskii 1, 634021 Tomsk, Russia Phone: +7 3822 259237 Fax: +7 3822 259237 Email: belov@iao.ru
Belyaev Leonid A.	Head of administration, Pervomaiski Raion	Pervomaisk, Tomsk Oblast, Russia Phone: +7 245 22344, 22254 Fax: +7 245 21946
Blam Yuri Sh.	Dr. Head of department, Institute of Economics and Industrial Organization, Siberian Branch, Russian Academy of Sciences	Pr. Lavrenteva 17, 630090 Novosibirsk, Russia Phone: +7 3832 345953 Email: blam@ieie.nsc.ru
Boldyrev Ivan F.	Director of the Forestry and Forest Industry Technical College	Karl Marx Str. 22, Tomsk, Russia Phone: +7 3822 224359
Bykov Vladimir A.	Chief forester, Tomsk Forest Management	Shevchenko Str. 17, 634021 Tomsk, Russia Phone: +7 3822 212875 Fax: +7 3822 263540
Bystritskii Leonid D.	Deputy head of the Tomsk regional administration, Head of the Dept. for Industrial, Forest and Oil Complex	Pl. Lenina 6, 634009 Tomsk, Russia Phone: +7 3822 510445 Fax: +7 3822 510643
Cheperigin Alexander A.	Director, OAO "Tomsk furniture-mirror factory"	Rosa Luksemburg Str. 115, Tomsk, Russia Phone: +7 3822 772939 Fax: +7 3822 789832
Cherkashina Olga V.	Deputy director, Real estate agency "Nash dom"	Nakhimov Str. 13/1, office 110, Tomsk, Russia Phone and fax: +7 3822 411473 Email: olgavl@mail.tomsknet.ru
Danchenko Anatolii M.	Dr. of Biological Sciences, Prof. Head of the forestry faculty of the Tomsk State University	Ul. Lenina 36, Tomsk, Russia Phone: +7 3822 426144
Domnich Yuri B.	Chairman of the board, Branch office of "Promstroibank"	Town of Asino, Tomsk Oblast, Russia Phone: +7 382241 21150 Fax: +7 382241 21150
Egorov Viktor A.	Deputy director, OAO "NIPIEIllesprom"	Moscow, Russia Phone: +7 95 320493
Gol'din Daniil I.	Director of the Forest Museum of Tomsk Forest Management	P. Timiryazev, Forest Museum, Tomsk Oblast, Russia Phone: +7 3822 911748
Khmel'nitskii Sergei S.	Head of management, "Tomsel'khozles"	Cedar Str., Village Kornilovo, Tomsk region, Russia Phone: +7 (????) 264971 Fax: +7 (????) 963196
Khomin Vasilii F.	Head, Department of the Forest Industrial Complex in Tomsk Oblast	Kuznechnyi vsvoz 12, 634003 Tomsk, Russia Phone: +7 3822 739388 Fax: +7 3822 739362
Kibish Igor V.	Deputy Head of the Tomsk Forest Management	Shevchenko Str. 17, Tomsk, Russia Phone: +7 3822 260570 Fax: +7 3822 263540

Kleinhof Andris E.	Dr. of Biological Sciences, Prof., Head of dept. for long-term forecasting of the All-Russian Research Institute of Forestry and Forestry Mechanization	Institutskaya Str. 15, 141200 Pushkino, Moscow region, Russia Phone: +7 095 5843054 Fax: +7 095 5837342 Email: kleinhof@mgul.ac.ru
Konyashkin Valerii A.	Member of the NGO "Ecological Initiative"	Tomsk, Russia Phone: +7 3822 510671 Fax: +7 3822 Email: vak@trecom.tomsk.su
Krivovyaz Viktor I.	General Director of the Regional State Unitary Company "Tomsk Forest Complex"	Kyznechnyi vzvoz 12, 634603 Tomsk, Russia Phone: +7 3822 739391 Fax: +7 3822 739362
Krutikov Vladimir A.	Dr. Phys. and Math. Sciences, President of the Presidium of the Tomsk Science Center, Siberian Branch of the Russian Academy of Sciences	Akademicheskii Prospect 2, 634021 Tomsk, Russia Phone: +7 3822 259309 Fax: +7 3822 259713 Email: prezid@hg.tsc.ru
Kupressov Viktor F.	Representative of "The Siberian Accord" in Tomsk	Lenin Square 6, 634069 Tomsk, Russia Phone: +7 3822 510705 Fax: +7 3822 510323
Kuzin Vladimir A.	Senior teacher of the forestry department of Tomsk State University	Lenin Str. 36, Tomsk, Russia Phone: +7 3822 426144
Kveglis Petr P.	Head of the Tomsk Forest Inventory (<i>lesoustroistvo</i>)	Shevchenko Str. 17, 634021 Tomsk, Russia Phone: +7 3822 211641 Fax: +7 3822 263540
Ligachev Egor K.	Deputy to the State Duma of the Russian Federation	Okhotnyi ryad, 103265 Moscow, Russia
Maier Roman A.	Director, OOO "Grol"	Tomsk, Russia Phone: +7 3822 780518 Fax: +7 3822 789903
Manuilov Vladimir Yu.	Director, OOO "Lipek"	Belinskii Str. 15, 634029 Tomsk, Russia Phone: +7 3822 526671 Fax: +7 3822 526354
Matvienko Gennadii G.	Dr. of Phys. and Math. Sciences, Director, Institute of Atmospheric Optics, Siberian Branch of the Russian Academy of Sciences	Prospect Akademicheskii 1, 634021 Tomsk, Russia Phone: +7 3822 259738 Fax: +7 3822 259086 Email: mgg@ioa.ru
Monin Alexandr N.	Head of Tomsk Forest Management	Sevchenko Str. 17, 634021 Tomsk, Russia Phone: +7 3822 212875 Fax: +7 3822 263540
Neifel'd Gennadii P.	Director, OAO "Tomlesstroii"	Sevchenko Str. 15, 634021 Tomsk, Russia Phone: +7 3822 213670 Fax: +7 3822 213670
Pinaev Valerii V.	Ph.D. of Agricultural Sciences, Deputy director, Kaltai experimental leskhoz	Kurlek, Tomsk region, Russia Phone: +7 (????) 968392
Pinkin Vladimir F.	General director, Mining Industrial Company "ZSK"	Rosa Luxemburg Str. 2, 634009 Tomsk, Russia Phone: +7 3822 526229, 526299 Fax: +7 3822 526778 Email: zsk@post.tomica.ru
Rudnev Viktor D.	Dean, Forest technical faculty, Tomsk State University of Architecture and Construction	Solyan Square 1, Tomsk, Russia Phone: +7 3822 724065

Shutov Viktor N.	Deputy general director, OAO “Tomlesprom”	Prospect Frunze 20, 634029 Tomsk, Russia Phone: +7 3822 231316 Fax: +7 3822 233244
Shvedov Petr P.	Manager, ZAO “Tomskaya krandashnaya fabrika” (Tomsk Pencil Factory)	Volkov Str. 75, 634009 Tomsk, Russia Phone: +7 3822 780320 Fax: +7 3822 780964 Email: tpf@mail.tomsknet.ru
Skudin Viktor A.	Manager, West-Siberian State Forest Inventory Enterprise	Krasnoyarsk, Russia Phone: +7 (????) 422830
Sokolov Vladimir A.	Dr. of Agricultural Sciences, Head of laboratory, V.N. Sukachev Institute of Forest, Siberian Branch of the Russian Academy of Sciences	Akademogordok, 660036 Krasnoyarsk, Russia Phone: +7 (????) 494635 Fax: +7 (????) 433686 Email: ifor@krsk.infotel.ru
Stroganov Sergei P.	Director, OOO “Irida”	Asino, Tomsk region, Russia Phone: +7 241 22241 Fax: +7 241 22241
Sulakshin Alexander S.	Senior consultant to the Regional State Unitary Company “Tomsk Forest Industrial Complex”	Kuznechnyi vsvoz 12, 634003 Tomsk, Russia Phone: +7 3822 739362 Fax: +7 3822 739362 Email: obwood@mail.tomsknet.ru
Tukhvatulín Ravil’ T.	Deputy head, Dept. of natural resources and the oil- and gas complex, Tomsk regional administration	Lenin Square 6, 634069 Tomsk, Russia Phone: +7 3822 510061 Email: trt@trecom.tomsk.su
Tyul’kov Gennadii I.	Director, “Interdepartmental Scientific Educational Center”	Novo-Sobornyi Square 1, apt. 137, Tomsk, Russia Phone: +7 3822 230658 Fax: +7 3822 234903 Email: all@scicoor.tomsk.su
Vernigorov Vladimir S.	Director of Private enterprise “Cyclon 1”	Ul. Nizhnelugovaya 31a, 634009 Tomsk, Russia Phone: +7 3822 789744, 780787 Fax: +7 3822 780134
Vorob’ev Vladislav N.	Dr. of Biological Sciences, Prof. Director of Institute of Forestry, The Filial, Siberian Branch of the Russian Academy of Sciences	Akademicheski Prosp.2, 634055 Tomsk, Russia Phone: +7 3822 258855, Fax: +7 3822 258855 Email: root@ienc.tomsk.su
Yur’eva Tat’yana V.	Chairman, Committee for economic policy, Tomsk Regional State Duma	Lenin Square 6, 634029 Tomsk, Russia Phone: +7 3822 510287 Fax: +7 3822 510602
Zinchenko Vladislav I.	Deputy head of the Tomsk regional administration, Head of the Department of education and research policy	Pl. Lenina 6, 634069 Tomsk, Russia Phone: +7 3822 510619 Fax: +7 3822 510619 Email: anna@trecom.tomsk.su

Appendix 4: The Final Document

Recommendations of the International Policy Exercise “Institutional Problems of Development of the Tomsk Forest Sector”

Tomsk, 13–16 June 2000

Constituting a significant part of the Russian forests, the forests of Tomsk Oblast are a vital natural resource of great regional, national, and global value.

Nevertheless, the Tomsk forest sector currently is in a difficult situation. Forest management is inefficient. In the last decade, timber harvests have decreased by 80%. Investments are extremely low. There are serious social problems in traditional timber-producing areas.

In a study of the forest sector in Tomsk and seven other Russian regions, conducted by the International Institute for Applied Systems Analysis (IIASA), Austria, attention was drawn to institutional shortcomings as the basic cause of the difficulties that are hampering the development of the Russian forest sector. The institutional embedding of the Tomsk forest sector is indeed the major impediment to a sustainable development of the sector. Immediate actions are needed at all institutional levels to permit and promote the development of a market-based forest economy.

An international policy workshop was held in Tomsk on 13–16 June 2000, in which 55 participants from Austria, Canada, Russia, USA, Finland, and Sweden discussed institutional problems of development of the Tomsk forest sector. The meeting was initiated by IIASA and sanctioned by the Head of the Administration of Tomsk Oblast (decree of 10 September 1999, No. 373-r). Regional participants in the exercise were members of the Tomsk regional administration, regional forest managers, forest industrialists, and business people. The IIASA researchers presented the results of their study of the Tomsk forest sector and outlined ideas on how to solve the identified development problems. The regional participants presented their views on the problems and also suggested ways to solve these problems.

In the discussions it was noted that the system of forest sector management that was inherited from the Soviet Union, today more than during Soviet times is characterized by a disconnection between administrative departments and a preoccupation with solving problems without due consideration of how the consequences might affect other departments, which is of special importance under the new market conditions and the various types of ownership. Thus, there is a need for a comprehensive view and a reestablishment of strong and efficient links between forest management, the forest industry, science and education.

It was also noted that the primary role of government should be to create a stable political and economic environment that permits and encourages private companies to be formed and to flourish. It is important for the government to limit the activities of the

bureaucracy to matters relating to political decisions, preventing direct interference with the economic activities of enterprises. This way it will be possible to reduce the number of administrators and make government work more efficiently. The government should support a relevant diversity of property forms and types of production. It was noted that the efficiency of enterprises' activities does not depend upon forms of property, but is rather crucially linked to the efficiency of management. Nevertheless, under current conditions private companies are the only efficient way of achieving a thriving market economy in the forest sector of Russia and the Tomsk region.

General Recommendations

The participants of the policy exercise recommend the following urgent measures to improve the situation in the Tomsk forest sector:

1. Work should be initiated to develop a *Regional Forest Code* for Tomsk Oblast. This code should include the legislative basis for generating an appropriate institutional framework for the Tomsk forest sector. The code should elaborate the legal and economic basis for a division of the regional forests between federal, regional, municipal and private owners. Provisions facilitating the creation of a favorable investment climate in the region are of special importance in this context. Subsequent regulations should be developed to provide for the efficient functioning of the forest sector in the new market economic environment.
2. *Mechanisms for strengthening public participation* in decision-making concerning forest management and policy are needed. This should include innovative ways of raising public awareness about the importance of forests and how they are used and managed, as well as efficient means for including society in forest policy and management decisions. For example, the public should have a chance to review and comment on the draft Regional Forest Code of Tomsk Oblast.
3. To strengthen the Tomsk forest sector, the concept of *community forest* should be reintroduced. Community forests existed in pre-Soviet times. Community forest concepts from Europe (e.g., Sweden, Italy) and North America might constitute the basis for pilot projects to reintroduce strong community forests in Tomsk Oblast.
4. It was considered essential that a comprehensive and integrated *forest management system* should be preserved, especially on the regional and municipal levels. This system has proved its vitality under the difficult conditions of the transition period.
5. A thorough analysis should be made of the implementation of the Regional Program "Sustainable Development of the Tomsk Oblast Forest Industrial Sector on the Basis of an Efficient Forest Utilization and a Comprehensive Processing of Forest Products". On the basis of this analysis, a *new version of the Program* should be developed. The new Program should consider the issue of institutional development, the state and role of the present institutional structure, as well as plans for the realization of short- and long-term tasks, including long-term business projects.
6. An improvement of the current forest group and protective category classification should be proposed and realized based on the example of Tomsk Oblast. The

classification should be transformed according to the principles of ecological inventory and planning of the territory and the forest resources in order to solve the tasks of the federal, regional, and municipal forest inventory, and sustainable forest management of this renewable resource.

7. Both the federal and the regional governments should pay serious attention to the problems of the Tomsk forest sector. One way of developing the sector might be to establish a *Consulting Council* with the Head of the Tomsk Oblast Administration charging it to deal with sector development. The Council should include all stakeholders (representatives of forest management, forest industry, forest science and education, and NGOs). Due to potential conflicts of interest, government officials should not be members of the Council, since its objective is to lobby the government to take decisive actions to improve the forest sector.
8. A *program for education and training of employees* in the Tomsk forest sector (from harvester operators to the staff of the Academy of Sciences) should be developed. The program should help make the Tomsk forest sector competitive on the domestic as well as international markets.
9. Special means should be found to raise the profile of the Tomsk forest sector. One suggestion is to try to get Tomsk named on the *UNESCO World Heritage List* on account of the city's many monuments of wooden architecture and the history of Siberian colonization. This could perhaps be done in time for the celebration of the city's 400th anniversary. If restoration and maintenance of the wooden houses were a priority in Tomsk, the city might become a world-class tourist destination and the business activities generated by this development would be considerable.

Further Research and International Collaboration

To realize many of the urgent measures listed above, the following international collaborative projects are desirable:

1. An international working group should be established to help elaborate ideas on how to redesign the institutional framework of the Tomsk forest sector thus promoting its prosperous development.
2. A program should be established to introduce the comprehensive use of remote sensing information to guide effective management of the Tomsk forest sector and the protection of the regional environment. The relevant infrastructure should be created meaning, in particular, that a receiving station for Landsat 7 and Resource should be installed (at the Institute of Atmospheric Optics of SB RAS).
3. A program should be established for the development of biodiversity and carbon budget management of ecosystems of special interest, such as the Siberian stone pine and the forest-bog complexes of Tomsk Oblast. The socioeconomic, environmental, and technological consequences of the participation of the Tomsk forest sector in the domestic and international market for environmental services, especially the carbon trade envisaged by the Kyoto Protocol, should be further analyzed.

Specific Recommendations

The Workshop recommends that the Tomsk Regional Administration take the following immediate initiatives:

1. A special research program “KEDR” (“Siberian Stone Pine”) should be established as a part of the “Program for the Development of the Tomsk Regional Forest Sector.” This program, with leadership provided by the Filial of V.N. Sukachev Institute of Forest of the Siberian Branch of the Russian Academy of Sciences, should aim to achieve the following:
 - Approval of the “Temporary Regional Harvesting Rules for Siberian Stone Pine Forests in Tomsk Oblast”;
 - Development of the background, targets, and technologies for an integrated assessment of the available Siberian Stone Pine resources; and
 - To supply more than one million m³ per year of Siberian Stone Pine wood to the forest industry and to enable a rational use of Stone Pine forests without causing environmental damage.
2. The participants of the international policy exercise recognize and acknowledge Tomsk Oblast as an important territory for the assessment and analysis of the conditions of forest bog landscapes and especially Siberian Stone forest formations, as a test area for the development of management systems for natural resources, in particular, forests.

The participants of the policy exercise express their gratitude to the Administration of Tomsk Oblast, the Filial of V.N. Sukachev Institute of Forest, SB RAS (Tomsk), the Institute of Atmospheric Optics, SB RAS (Tomsk), the International Institute for Applied Systems Analysis (Laxenburg, Austria), and SSUE “Tomskiy LPK” for the successful organization of the exercise.

[Signature]

Professor Sten Nilsson
Counselor to the Director and Leader
of the Forestry Project at IIASA
Laxenburg, Austria

Date: 5 January 2001

[Signature]

Professor V.N. Vorob’ev
Institute of Forest, the Filial,
SB RAS, Tomsk, Russia

Date: 25 January 2001

[Signature]

Dr. Alexander S. Sulakshin
Deputy Director
Union of Forest Industrialists in Tomsk Region
Tomsk, Russia

Date: 30 January 2001