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National Synthesis

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## *The Challenges Facing Forests and Strategies for Addressing Them*

Editors:
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The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Please note that the strategies and recommendations presented in the workshop reports are the direct products of the workshop participants. The views expressed in this publication do not necessarily reflect those of IUCN.

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## Executive Summary

Russia's forest sector is of global importance because of its size, carbon-storage capacity, biodiversity, and extent of its forest products (timber and non-timber). It is equally important nationally for its contribution to the gross domestic product, export earnings, and employment, as well as for its vital role in the lives of indigenous peoples. A long history of forest management has made Russia a recognized leader in forest conservation, research, and development.

Despite vast resources and the global demand for forest products, the Russian forest sector has been experiencing severe management problems that threaten socioeconomic stability and the ecological integrity of the forests. The legacy of centralized planning policies, the recent transition to a market economy and ensuing economic and political turmoil have diminished Russia's management capacity. These problems are further compounded by insufficient public access to information and by the lack of mechanisms for public participation in decision making. These issues are severe impediments to the conservation and sustainable development of Russia's forests, and they urgently need to be addressed.

Because of these concerns, IUCN's Temperate and Boreal Forest Programme (TBFP) which is part of the broader IUCN Forest Conservation Programme, has identified Russia as the first priority for the development of a country-level program to promote conservation and sustainable forest management initiatives in temperate and boreal countries.

Russia is too large and the forest sector too diverse to be adequately considered solely at the national level. IUCN therefore conducted a series of four participatory workshops across the country. Separate workshops examined the Russian Far East, Siberia, and European Russia. These regional workshops were followed by a synthesis meeting at the national level. IUCN also commissioned background papers on the state of Russia's forests in each region and for the country as a whole from the All-Russian Research and Information Center for Forest Resources (ARICFR). (The national paper is available as Annex 1 of this report. The regional papers are available upon request.)

The workshops brought together a unique assemblage of local nongovernmental organizations (NGOs), government officials, and scientists from within each region of Russia, federal government officials and national NGOs from Moscow, international NGOs, and the foundation and donor community active in each region.

The workshops employed participatory methods to enable the Russian stakeholders to articulate what they saw as the major obstacles and opportunities facing forest conservation and sustainable development in each region of Russia. After generating a list of "urgent forest issues", the participants prioritized these issues. Participants then broke into working groups and were asked to develop strategies for addressing each priority issue in the region's context. They were asked to reflect on three strategic questions: 1) What needs to change to address the issue? 2) What opportunities exist for influencing that change? and 3) What partnerships need to be developed to bring about this change?

Workshop participants produced lengthy sets of recommendations and strategies to address each of the priority issues. The following issues emerged as priorities in the regions:

**For the Russian Far-East:**

Issue 1: The lack of efficient methods for preventing and extinguishing forest fires.
Issue 2. The need to incorporate ecological values into forest inventory systems.
Issue 3. The need to diversify forest product use, especially non-timber forest products.
Issue 4. The need to diminish the biodiversity impacts of logging in forest ecosystems, including the use of criteria and indicators of sustainable forest management.

**For Siberia:**

Issue 1: Reduction of ecological and economic damage from forest fires.
Issue 2: Inventory and conservation of old-growth forests.
Issue 3: Adapting criteria and indicators of sustainable forest management to Siberian conditions.
Issue 4: Improving public awareness of ecological values.
Issue 5: The impact of rocket fuels on forests

**For the European-Urals region:**

Issue 1. Problems with developing regional legislation and coordinating it with the federal forest legislation.
Issue 2. Extension of the Specially Protected Natural Areas (SPNAs) network and development of the ECONET forest programme.
Issue 3. Finding workable solutions to the problem of forest fires
Issue 4. Restoration of radioactively polluted forests and modification of its traditional use to protect local communities.
Issue 5. Developing partnership between state bodies and public organizations.
Issue 6. The need to balance the ecological, economic, social, and cultural aspects of sustainable development and to find solutions to the problems of the forest sector at the political level.

The regional workshops were followed by a **national level workshop** which was designed to synthesize the results of the previous workshops; verify that the regional workshops had identified relevant issues for the regional and national levels; examine the feasibility of the strategies developed at the regional workshops; and finally, identify next steps for IUCN and other partners.

Based on the results of this series of workshops, it is clear to IUCN that our potential niche in forest conservation and management in Russia revolves around our ability to serve as a catalyst and a convenor.

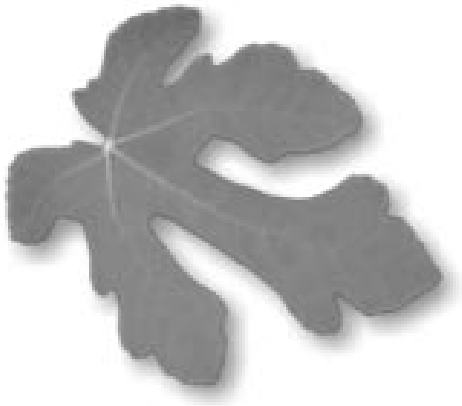
The first potential role for IUCN is as a networker. As a global Union, IUCN has the ability to mobilize technical expertise in other countries as well as the expertise of a small but growing network of IUCN institutional members and individual commission members within Russia, which can be brought to support forest conservation in Russia.

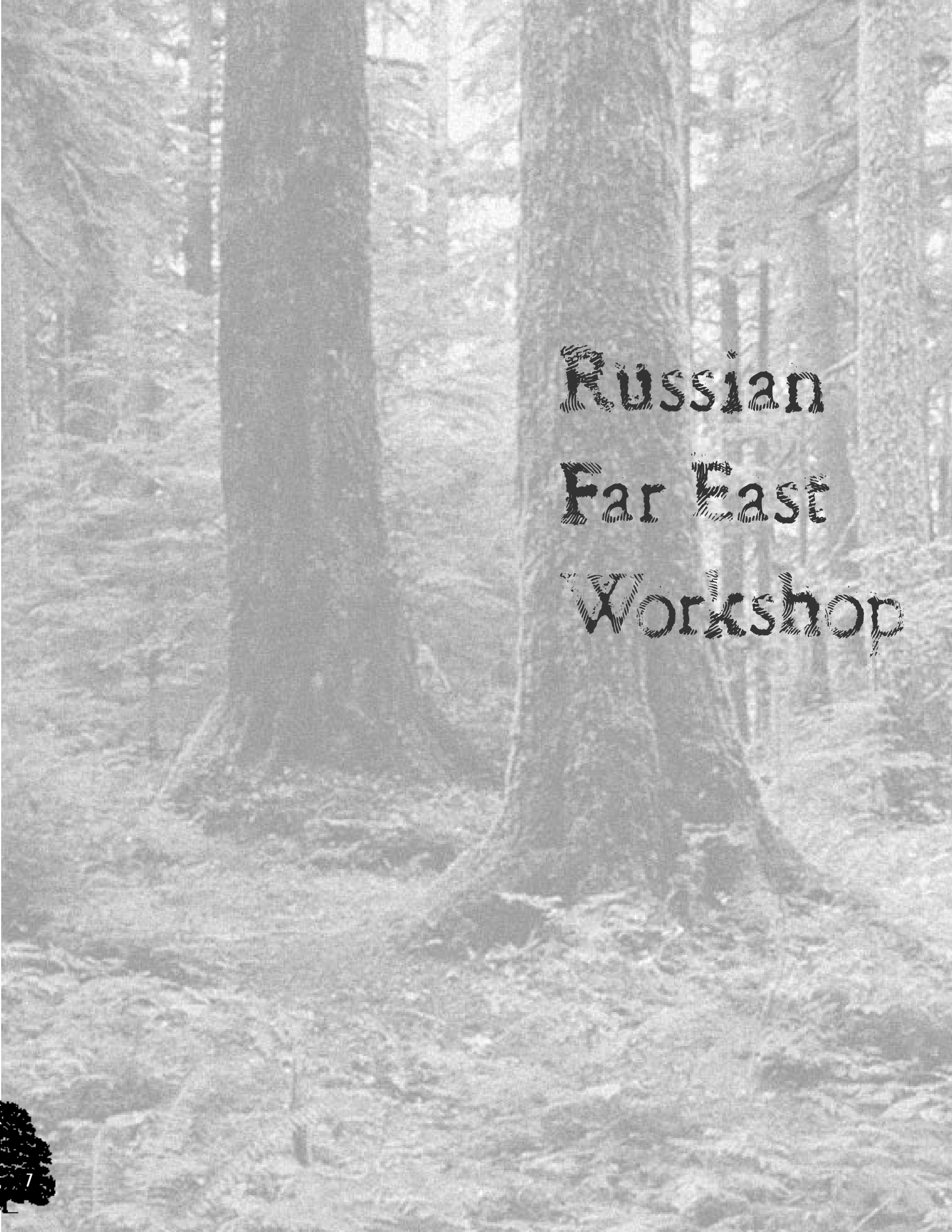
The second role for IUCN is to function as a facilitator in helping to build new partnerships with an increasingly mobilized civil society within Russia, as well as with organizations outside of Russia.

And finally, a third potential role for IUCN is to make the connections between policy and practice by learning from field experiences in Russia and sharing these lessons learned with Russian stakeholders and the rest of the world. This may be particularly valuable to IUCN members and partners considering or reconsidering how best to deploy their financial and technical resources for conservation in Russia.

Based on the results of these workshops, and further meetings with Russian partners, UICN is currently developing a forest conservation programme in Russia, with several component projects.

The next steps will consist of refining these project proposals with potential technical partners inside and outside of Russia, fundraising and implementing the programme. IUCN is also developing a Memorandum of Understanding for cooperation with the Federal Forest Service of Russia.





# Russian Far East Workshop

## Russian Far East Workshop

Yakutsk, Republic of Sakha (Yakutia)
19 June 1998

**Introduction**

The first regional workshop on "Challenges Facing Forests of the Russian Far East" was held in Yakutsk, Republic of Sakha (Yakutia), on 19 June 1998. The workshop was convened in conjunction with the international conference entitled "Biodiversity Conservation in the Russian Far East: Priority Territories ('Hotspots') and Strategies for Their Protection," which was co-sponsored by Friends of the Earth (Japan), IUCN-The World Conservation Union, and the Ministry of Nature Protection of the Republic of Sakha (Yakutia). The workshop brought together a unique assemblage of local nongovernmental organizations (NGOs), government officials, and scientists from each of the territories of the Russian Far East, along with federal government officials and national NGOs from Moscow, as well as international NGOs active in the Russian Far East, and the foundation community.

The workshop was formally opened by Lyudmila Shmatkova, Deputy Minister of Nature Protection of the Republic of Sakha (Yakutia). The workshop began with a presentation on the sector-wide changes needed to achieve sustainable forest management and an overview of the All Russian Research and Information Centre for Forest Resources (ARICFR) paper on the Russian Far East Forests (available separately). The workshop then employed participatory methods to enable the Russian stakeholders to articulate what they see as the major obstacles and opportunities facing forest conservation and sustainable development in each region of Russia. After generating a list of eighteen "urgent forest issues", the participants prioritized these issues. They ranked the following six issues as top priorities:

1. The lack of efficient methods for preventing and extinguishing forest fires.
2. The need to incorporate ecological values into forest inventory systems.
3. The need to diversify forest product use, especially non-timber forest products.
4. The lack of financing for forest management and conservation.
5. The need to diminish the biodiversity impacts of logging in forest ecosystems.
6. The elaboration and introduction of regional criteria and indicators for sustainable forest management.

For the purposes of developing strategies for addressing these issues, the participants decided to consider the last two issues jointly. They also decided not to address the issue of the lack of financing for forest management, based on the assessment that there was little that the workshop could accomplish on this particular issue.

Participants then broke into working groups and were asked to develop strategies for addressing each priority issue in the Russian Far East context. They were asked to reflect on three strategic questions: 1) What needs to change to address the issue? 2) What opportunities exist for influencing that change? and 3) What partnerships need to be developed to bring about this change?

Workshop participants produced lengthy sets of recommendations for strategies and approaches to address each of the priority issues. The following highlights some of the main points.

**Issue 1: The lack of efficient methods for preventing and extinguishing forest fires.**

Among workshop participants, forest fires emerged as the top issue affecting forest conservation and sustainable management in the Russian Far East. To prevent fires, participants developed a wide range of strategies, including raising public awareness; the use of prescribed burns to reduce fuel loads; the development of tax incentives for better fire management by timber companies; and expanding the authority of forest-service personnel to investigate fires. Participants also emphasized the need for collaboration between government agencies, NGOs, and the media to accomplish these tasks. For actually fighting fires, participants recommended a series of budgetary reforms at the federal and regional levels to provide consistent funding for fire fighting. They recommended the elaboration of criteria to prioritize which fires should be fought and which allowed to burn. They also suggested the elaboration of mechanisms to facilitate the delivery of financial and technical support from the international community in cases of "catastrophic" fires, since such fires would be catastrophic on a global scale, as well as on a regional scale.

**Issue 2. The need to incorporate ecological values into forest inventory systems.**

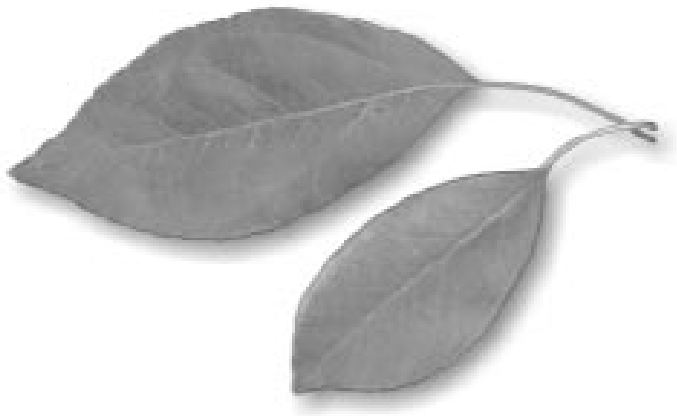
Effective forest management requires sound technical information on the state and extent of the forest. However, workshop participants acknowledged that for approximately half of Russia's forest cover in Asia, forest inventory statistics are either outdated or non-existent. Without such information, it is not possible to conduct economically or ecologically justifiable forest management. Participants recommended the completion of a forest inventory for the entire federal forest estate, based on available satellite imagery, and beginning with areas where commercial logging is planned. They acknowledged that obtaining sufficient financial resources for such an endeavor would be a significant challenge.

Participants also focused on the need to incorporate the full range of forest-ecosystem services into forest inventories, rather than focusing exclusively on commercially valuable timber. To accomplish this, they recommended several courses of action, including undertaking an analysis of existing inventory regulations in order to make recommendations for their improvement, and undertaking a pilot project in the Republic of Sakha (Yakutia).

In addition to collecting more and better data on non-timber forest values, participants also suggested developing a methodology for integrated land-use planning, based on existing local experiences, which could then be applied more broadly throughout the region.

**Issue 3. The need to diversify forest product use, especially non-timber forest products.**
Workshop participants identified several strategies for diversifying the uses of a broad range of forest products in order to increase the flow of economic values from forest ecosystems while reducing pressures for the commercial harvesting of timber resources. The majority of the timber exported from the Russian Far East is shipped out unprocessed. Participants therefore suggested a number of measures to increase local value-added processing. They also emphasized the need to further develop domestic and international markets for a range of non-timber forest products, including markets for carbon sequestration in the region as well as expanding opportunities for eco-tourism.

**Issue 4. The need to diminish the biodiversity impacts of logging in forest ecosystems, including the use of criteria and indicators of sustainable forest management.**
Workshop participants highlighted the biodiversity impacts of the prevailing clear-cutting practices in the Russian Far East, particularly when performed in a concentrated fashion, in primary forests, and on permafrost soils. They recommended the adoption of ecosystem-based planning for forest management, preferably to be carried out on a landscape or watershed-level basis. Another critical strategy recommended for addressing the biodiversity impacts of proposed logging operations is to open up the environmental impact assessment ("expertisa") process to greater public scrutiny and comment.



## Issues identified at the Russian Far East workshop

- The absence of efficient methods for preventing and extinguishing forest fires.
- The need to increase the ecological character and accuracy of forest inventories.
- The need to use and market forest products in an integrated way (especially non-timber forest products).
- The lack of financing for forest management and conservation;
- The impact of logging on forest ecosystems.
- The need to elaborate and introduce regional criteria and indicators for the sustainable use of forests.
- The need to develop effective legislation in forests formerly owned by collective farms and Soviet collective farms (kolkhoz and sovkhoz) and to improve their management and overall state.
- The proposal to have the forest service take charge of the light fire-fighting air-force .
- The many drawbacks in current methods for calculating the annual allowable cut (AAC).
- The drawbacks in the forest legislation.
- Illegal logging and the illegal trade of forest products.
- The need to prevent fragmentation of large tracts of forest.
- The problem of deforestation in permafrost areas.
- The increase in the global consumption of timber and the export of round timber.
- The need to determine who are the users of the forest.
- The lack of forest regeneration and the decrease of forest stands' productivity.
- The lack of scientific information.
- Social aspects, including traditional uses of nature by local and indigenous peoples.

## Strategies developed by the working groups at the Russian Far East workshop

**1. Improve methods for preventing and extinguishing forest fires.**

*A. Finance fire-fighting activities called for in Russian legislation*

- Include a separate line item in the government's budget to fund fire-fighting activities.
- Establish a special fund in each region to cover fire-prevention and fire-fighting expenses when releases of federal funds are delayed. This special fund would be replenished when federal funds or other allocations are disbursed.
- Develop criteria to identify fire-fighting priorities, based on the location of the territory, the presence of protected areas, human settlements, etc., so as to better organize activities and associated governmental expenditures.

*B. Establish preventative measures*

- Carry out prescribed burns, in some instances, to reduce the amount of fuel (undergrowth, etc.) on forest soils. However, prescribed burns on croplands adjacent to federal forest estate territories would only be conducted with the participation and supervision of forest-service specialists.
- Extensively develop public awareness and environmental education.
- Apply a full range of tools to ensure operational fire-surveillance efforts. The tools used would depend on the characteristics of the territory involved and would include, for example, lightning sensor arrays and fire towers.
- Establish mobile, mechanized, fire-fighting units to optimize fire-fighting efforts. These units would be fully supplied with suppression and communications equipment and be capable of responding rapidly to a fire alert in the region.
- In highly visited areas, develop a wide range of measures aimed at controlling access to forests. For example, permits and registration could be required to enter certain fire-sensitive areas.
- Encourage timber companies, through tax incentives and other means, to remove usable timber from burned areas, thereby reducing the quantity of dry fuel on the site. (This is also proposed as a preferable alternative to logging in other, non-burned areas.)

*C. Other*

- Develop a methodology for calculating damages resulting from forest fires that takes into account all forest ecosystem services.
- Considering the danger involved in combating forest fires and apprehending violators of forest-use regulations, have the government: 1) adopt a series of measures aimed at improving the social protections and privileges offered to forest rangers through civil service status; and 2) expedite the development and adoption of regulations allowing the use of firearms by forest-protection personnel;
- Bring in new forest-service staff, having the rights and status of Ministry of the Interior personnel, to conduct investigations of the causes of fires, thereby increasing the conviction rate for violations of forest regulations.
- Encourage the forest-service agencies to cooperate with public nature-protection organizations and other institutions to achieve independent public inspections.
- Raise public awareness through the mass media, including special issues of publications and regular columns in local and regional newspapers.
- Encourage forest-service personnel to work more closely with journalists

covering forest-sector themes to avert the publication of inaccurate information.

- For several years, international organizations have been indicating their interest in protecting Russian forests from fire, particularly those in the Russian Far East. In the event that catastrophic fires occur, they should be considered catastrophic on a global scale; therefore,
establish mechanisms to facilitate the delivery of financial and technical assistance from the international community to assist in fire suppression.

**2. Methods for incorporating ecological values into forest inventory systems.**

*A. Basic solutions*

For approximately 50% of Asian Russia's forest estate (443.4 million of 971.6 million ha), including the Russian Far East in particular, there are practically either no forest inventory statistics or only ones that are outdated. Up to one-third of former collective lands (*sovkhozy* and *kolkhozy*) also lack forest-inventory data.

In such a situation, it is impossible to speak of economically and ecologically justifiable logging volumes. In collective forests, logging is generally conducted without systematic controls. However, existing forest regulations specifically forbid logging activities when no forest inventory has been done.

*What needs to be done:*

- Conduct a forest inventory for the entire federal forest estate , at least on the basis of satellite imagery. Begin inventorying in areas where logging operations have already been planned.
- Organize a public campaign to inform the public and governmental bodies of the absence of a comprehensive inventory of data and build capacity for its development by means of case examples.
  - The Republic of Sakha (Yakutia), with the participation of other interested parties as needed, could prepare a report with photographs and video materials for presentation to interested stakeholders through the mass media.
  - The IUCN could raise funds for the development of the first stage of this work (approximately $10,000 to $20,000 US).
  - Donor organizations that were present at the conference could be approached to finance this project.
- Approach the Federal Forest Service with a request to expedite forest-inventory activities; however, as in the past, funding for this work may not be made readily available.
- Propose to regional governmental authorities that funds for forest inventory be included in any forest-sector development programs.
- Request that the Ministry of Agriculture and Food Production disburse funds to carry out inventories on forested lands zoned for agriculture.

*B. Quality of forest inventory regulations*

The most important shortcoming of "Forest Inventory Instructions…." (1995) is the high tolerance of statistical uncertainty concerning the definition of taxonomic indicators. Also, the list of key indicators is insufficient: there is no mention in it of fauna-related indicators, although the

Federal Forest Service is specifically authorized to address such questions. There is also a lack of sufficient representation of protected areas, regulations for recreation on forest lands, etc.

- Ask the IUCN to coordinate efforts of the Far Eastern Forestry Research Institute, forest-management agencies, NGOs, and others to conduct an analysis of existing forest-inventory regulations.
- Suggest that Russian Far East regional governments use this analysis when they propose modifications to these regulations to the Federal Forest Service (and the Government of the Russian Federation).

*C. Improving the quality of forest inventory activities*

- Encourage agencies within the executive branch of the federal government to invite NGOs to participate in secondary forest-inventory meetings.

*D. Development of a public, registry-based system of forest evaluation*

- Ask the IUCN to develop a general methodology of land evaluation, including multi-stakeholder use of the resource and including ecosystem services, based on the experience of the Chuguevskiy region. This methodology could then be published and distributed to forest-management agencies.
- Organize a workshop to discuss this experience with representatives of forest-management agencies and other interested parties.

**3. Strategies for diversifying forest-product use, especially non-timber forest products (NTFPs).**

*A. Timber*

- Develop a pilot project to promote value-added timber for small business.
- Promote the export of processed timber products by influencing timber importers.
- Support organizations in their efforts to develop and realize investment projects on timber processing activities.
- Promote the application of forest-certification mechanisms.

*B. Wild-growing forest products (mushrooms, berries, nuts, fiddleheads, medicinal herbs, etc.)*

- Support local organizations that process NTFPs (for example, the Hunters' Society and others).
- Promote efforts to market and trade NTFPs through regional trade associations (for example, the "Association of Non-timber Forest Product Users," Khabarovsk).
- Develop a pilot project to promote NTFPs. Examples include the acquisition of materials processing equipment, the certification of NTFPs, etc.
- Provide support to local organizations in realizing investment projects.
- Undertake market research for NTFP resources and develop advertising campaigns for these markets in the Russian Far East.

*C. Animal resources*

- Support rare-species conservation efforts.
- Extend the market for fur-bearing animal products.
- Consider and evaluate animal-population estimates and hunting quotas when developing markets for fur products.

*D. Bee keeping*
- Extend the market for apiary products;
- Promote the acquisition of processing and packaging equipment.
- Evaluate habitat conditions and conservation of wild native bee genotypes; evaluate the economic viability of honey production.

*E. Timber-processing wastes*
- Develop pilot and investment projects where crafts (souvenirs, brooms, fir cones, etc.) are made from NTFP resulting from timber-processing wastes.

*F. Evaluate and monitor forest-recreational values by region (using GIS)*
- Promote recreational tourism through fostering contacts between tour providers and local communities.

*G. Evaluate the carbon sequestration potential of forests, by region*

**4. Ways to diminish the biodiversity impact of logging in forest ecosystems, including the use of criteria and indicators of sustainable forest management.**

*A. Determine the suitability of proposed logging*
- Conduct system-based evaluations of forest and forest-resource values.
- Study the influence of various logging methods on the composition, structure, and dynamics of forest ecosystems.
- Apply elements of biodiversity evaluation and conservation in forest-inventory efforts.
- Invite the public and NGOs to participate in environmental impact assessments.
- Develop a method for determining the environmental-economic value of forest massifs.
- Develop criteria to evaluate the state and biodiversity of the forest environment.

*B. Declare moratoria on:*
- Logging in especially valuable and virgin forests.
- Clear-cutting several adjacent areas greater than 50 hectares in old-growth and mature, secondary-growth forests.
- Clear-cuts on fragile soils prone to deep frosts and permafrost.

*C. Planning and conducting logging*
- For new logging areas, develop innovative, multiple, forest-use systems that take into account the specific ecological characteristics of the region.
- Strengthen the enforcement of existing logging regulations by forest-management agencies.
- Develop and introduce economic incentives to encourage low-waste logging technologies.
- Develop system-based forest use plans.
- Establish regional forest-use plans using landscape- and watershed-based approaches.

*D. Other*
- Inform the international community of the management of forests in the Russian Far East.
- Recognize that boreal forests from the permafrost zone are especially vulnerable and unstable.
- Build a network of model forests in each eco-geographical region of Russia and progress with existing ones.

# List of participants of the Russian Far East workshop

**Participants from Russia:**
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**Republic of Sakha (Yakutia):**
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Mr. Nikolai Sedelnik, Deputy Director and Chief Forester, Forest Service, Republic of Sakha (Yakutia) (Jakutsk).

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Mr. Anatoliy Koval, Chairman, Regional Committee on Environmental Protection (Blagoveschensk).

Mr. Victor Yaborov, Chief Forester and Deputy Director, Regional Forest Service (Blagoveschensk).

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Ms. Natalia Moraleva, Program Manager, WWF Russian Program Office.

Mr. Aleksei Morozov, Forest Specialist, Greenpeace-Russia.

Mr. Vladimir Moshkalo, Head, IUCN European Program, Office for the CIS.

Mr. Evgeniy Simonov, Member, Committee of Experts for the Pan-European Ecological Network. (STRA-REP), Council of Europe

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**Krasnoyarskii krai:**
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# Siberian Workshop

## Siberian Workshop

Krasnoyarsk (Central Siberia),
Russian Federation
30-31 July 1998

**Introduction**

The second of the regional workshops on "Challenges Facing Siberian Forests and Strategies for their Solution" was held in Krasnoyarsk (Central Siberia) on 30–31 July 1998. Like the Russian Far East workshop, the Krasnoyarsk workshop brought together a unique group of local and regional NGOs, government officials, and scientists from different territories of Siberia, as well as international NGOs active in this vast region. The Siberian workshop followed the same participatory format as the Russian Far East workshop: it identified priority issues for the region and developed strategies for addressing them. Workshop participants identified the following five issues as priorities for forest conservation and sustainable management in Siberia:

1. The need to reduce ecological and economic damage from forest fires.
2. The need to inventory and protect old-growth forests.
3. The need to adapt criteria and indicators of sustainable forest management to Siberian conditions.
4. The lack of public awareness of ecological values.
5. The need to determine the impact of rocket fuels on forest health.

The detailed list of issues is included further below as well as the strategies developed by the working groups. What follows highlights some of the main points.

**Issue 1: Reduction of ecological and economic damage from forest fires.**
The probability and dynamics of fires are difficult to predict; factors include the effects of weather (drought and lightning) and the fuel supply, the impact of local forest-management practices on wood supply, the degree of recreational use of the forest during fire-hazard periods, and the number of fires of anthropogenic origins (both criminal and accidental). To improve the situation, the public's attitude towards forest fires needs to be changed. New fire-management techniques need to be developed and the conditions of fire-fighters upgraded.

**Issue 2: Inventory and conservation of old-growth forests.**
To better appreciate old-growth forests, they will first need to be better defined, mapped, and have their overall status described. Then, the full benefits and/or services they offer to the environment and their real ecological value will need to be presented to the public.

**Issue 3: Adapting criteria and indicators of sustainable forest management to Siberian conditions.**
Forest-management policy needs to be oriented toward sustainable forest management, including the conservation of significant portions of forests. The use of non-timber forest resources will need to be promoted, as well as links and/or relationships between forest users and forest-management organizations.

**Issue 4: Improving public awareness of ecological values.**
The Ministry of Secondary and Professional Education and the Russian Federal Forest Service need to amend the forest educational programmes, broadening the courses to consider the ecosystem approach to forest use, and to intensify activities in the field of public ecological education and public awareness.

**Issue 5: The impact of rocket fuels on forests**
Rocket fuels seem to have a negative effect on forests; however, no assessment of their impacts has yet been done. Furthermore, the public is not aware of the effects of these chemicals on their health. Solutions proposed were to develop ecologically friendly fuels, reduce the frequency of flights, and establish legal mechanisms to monitor the activities of the relevant governmental bodies responsible for the contamination of forests.

## Issues identified at the Siberian workshop

The participants of the workshop divided the issues into longer-term and shorter-term time frames.

*Shorter-term issues*

- Reducing the ecological and economic damage caused by forest fires. A partial solution to the problem is envisaged through the understanding of fire dynamics and the development of a successful fire-fighting programme.
- The inventory and preservation of old-growth forests.
- Developing criteria and indicators for sustainable forest management and use.
- Evaluating the significance of the landing of space rocket stages and the dispersal of rocket fuel.
- Determining and assessing possible underlying causes of deforestation and forest degradation and their resolution.
- Evaluating factors causing the degradation forest edges.
- Using timber damaged by forest pests, diseases and fires.
- Increasing the socio-economic role of the forest by increasing the range of forest resources used.
- Assessing the impact of forest fragmentation and the disturbance of the hydrological regime as a result of interference in water courses.
- Assessing the state of Siberian forests using GIS.

*Longer-term strategic objectives*

- Improving the general quality and socio-ethical orientation of ecological education.
- Developing ideological and psychological bases for ecological awareness-raising aimed at changing traditional values.
- Developing an information center for public relations between environmental organizations and the public.

## Strategies developed by the working groups at the Siberian workshop

**1. Reduction of ecological and economic damage from forest fires.**
The problem of forest fires is very serious; solutions must therefore be found quickly.

*What needs to be changed or done:*

- Change the public's attitude towards forest fires.
- Improve the system of fire detection, understanding fire dynamics and consequences, develop a data base and large scale maps of forest fuels.
- Develop new fire-fighting methods.
- Provide better salaries for forest-fighters.
- Improve working conditions for fire-fighters.
- Construct effective fire-breaks.
- Use fire-fighting equipment with anti-spark devices.
- Prescribe the burning of forest-floor debris (fuels).
- Develop a system of fire detection (through analytical services) and coordinate all bodies participating in fire-detection and -fighting (Nature Preserve "Tchazy," Khakassia; its deputy director G.V.Devyatkin has interesting materials).
- Define criteria to determine which forests should or should not be allowed to burn.
- Increase funding for fire-fighting organizations.
- Develop an early detection system/define high-risk areas:
  - develop inventory methods for assessing forest fire hazards;
  - develop a decision-support system – modeling efforts – mapping efforts; and
  - develop maps of fuels and/or flammability risks.

*What opportunities exist:*

- Modify the legislation.
- Decrease the violation of laws by organizations and people.
- Raise public awareness of the consequences of forest fires.
- Develop a data base for forest-fire monitoring and safety.
- Establish a competent forest-fire managerial staff.
- Study the effects of fires on climate change.
- Educate the public.
- Develop an ecological consciousness and responsible behavior towards nature.
- Exhibit children's drawings and posters.
- Develop and strengthen the system of school forest units, the small forest sites managed by school children.
- Cooperate with the mass media;
- Organize several workshops on fire prevention.
- Improve the training of fire-fighters.
- Train senior staff fire management.
- Disseminate state-of-the-art information on prescribed burning techniques.

*What organizations or partnerships could be established to solve the problem?*

- Involve the V.N.Sukachev Institute of the Siberian Branch of the Russian Academy of Siences:
  - in developing a system where forest fighters are regularly paid for their work; and
  - in establishing a data base to improve the understanding of fire dynamics and its consequences on the ecosystem (A.V.Volokitina);
- Involve the NGO "TESI" (Tomsk); Eco-initiative group "Borei" (Gornoaltaisk); ecological fund "Tchazy" (Khakassia), NGO "Viola" (Bryansk):
  - in raising ecological awareness of schoolchildren; and

- in developing an effective fire awareness (L.V.Blinov "TESI").
- "TESI"'s department "Regional Green Capital" and the Tomsk Regional Forest Service:
- To publicize their joint experience in fire-fighting:
  - involve A.V. Volokitina and L.V.Blinov; and
  - develop a legislative act regulating prescribed fires.

*Threats:*
The probability and dynamics of fires are difficult to predict. Factors influencing conditions include the effects of weather (drought and lightning), the fuel supply, the impact of local forest-management practices on wood supply, the degree of recreational use of the forest during fire-hazard periods, and fires of anthropogenic origins (both criminal and accidental).

**2. The inventory and conservation of old-growth forests.**
Old-growth forests are not properly valued for their ecological functions and/or services; rather, they are only viewed for their economic value.

*What needs to be changed or done:*
- Define the primary and secondary values of old-growth forests.
- Outreach at all levels:
  - develop ecological education at the national/international level using internet publication;
  - influence policy and legislation – change federal forest service policies; and
  - promote the enforcement of forest protection.
- Create an old-growth map (GIS):
  - locate old-growth forests throughout Russia (including all sub-regions);
  - describe the "protection status" of each forest; and
  - describe existing threats to old-growth forests.
- Consider both the historic and current uses of old-growth forests by local peoples (both indigenous and non-indigenous).
- Increase local and regional control; decrease Moscow's control.

*What opportunities exist:*
- Inventory and assess old-growth forests taking into account their representative character with respect to the forest-type biodiversity of the region.
- Make the map! For education, analysis, policy influence. Begin the data base compilation:
  - transfer all areas of old-growth forests to "first group forests";
  - clarify various definitions of "old growth."
- Steps and directions for the old-growth map production:
  - Initial step: definition of "old growth" (principal and legal), and clarification of values;
  - Research: compile information from regional and/or local sources;
  - Analysis: map generation and data-base creation;
  - Output: create various output products: paper, digital (internet and CD-ROM – local, regional and national versions); education; media outreach; and
  - Legislative: influence policy and/or legislation.

*What organizations or partnerships could be established to solve the problem?*
NGOs could provide funding and incentives to produce the map and compile data. Information specialists could provide the relevant data.Federal forest-service managers.GIS and/or remote-sensing specialists. Educators, the media, local communities; oral history and/or local knowledge of logging histories.

**3. Adapting criteria and indicators of sustainable forest management to Siberian conditions.**
*What needs to be changed or done:*
- Orient forest-management policy toward sustainable forest management
- Increase the degree of conservation of forest ecosystems
- Develop the sustainable use and/or production of non-timber forest resources
- Develop links and/or relationships between forest users and forest-management organizations;What opportunities exist:Evaluate forest conditions based on multiple forest-use patterns
- Develop stronger legislation governing forest use
- Improve professional training and the ethics of people commercially exploiting the forest

*What organizations or partnerships could be established to solve the problem?*
- Research institutions (Forest Institute)
- Representatives of Regional Forest Services
- Ecological NGOs (The Socio-Ecological Union)
- Include local and regional ecological issues in all educational programmes
- Establish an inter-agency coordinating council.

*Threats:*
The Russian people have not been much exposed to the negative impacts of the overuse of forest resources. Furthermore, because of Russia's size, the negative impacts have been somewhat diluted. In this context, convincing the public to modify its practices and behaviors will be a challenge given its overall low environmental consciousness.

**4. Improving public awareness of ecological values.**
*What needs to be changed or done:*
- Request the Ministry of Secondary and Professional Education and the Russian Federal Forest Service to amend the forest educational programmes, broadening the courses to consider the ecosystem approach to forest use, and to intensify activities in the field of public ecological education and public awareness.
- Develop a program of ecological education and information by means of the mass media.
- Establish a regional public coordinating center for protecting forests from human activities:
  Interested NGOs could include:
  - the Krasnoyarsk branch of Socio-Ecological Union;
  - Siberian squads for the protection of nature;
  - the Khakassky regional public ecological fund "Tchazy";
  - the Altay branch of the Socio-Ecological Union;
  - the Primorsky Union of all districts "Cedar"; and
  - all interested organizations and scientific institutions.

- Release—to the mass media, NGOs, and the public—information on the work of the regional public coordinating centers in the protection of forests from human activities.
- Collect and analyze reliable information on the health of forested areas, including data on pest outbreaks, diseases, and forest fires.
- Provide the information to the mass media and NGOs.

**5. Impact of rocket fuels on forests.**

*What needs to be changed or done:*

- Compile a scientifically sound data base for the different activities aimed at decreasing the ecological damage caused by rocket fuels.
- Assess the economic and ecological damage to forests while considering social factors.
- Develop a regional public center to study the impact of the combustion products of rocket fuels on ecosystems and people's health ("TESI," "Borei," "Tchazy").
- Reduce the frequency of flights.
- Develop ecologically friendly fuels.

*What opportunities exist:*

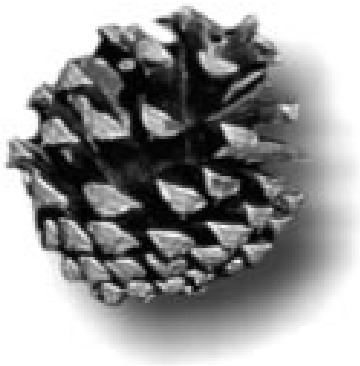
- Inform the public of the chemical characteristics of pollutants and their associated health risks.
- Establish legal mechanisms for monitoring the activities of the relevant governmental bodies (Ministry of Defense, etc.) responsible for the contamination of forests.
- Make an environmental impact assessment of rocket fuels on forests.
- Concentrate activities on a devastated area of minimal ecological significance.

*What organizations or partnerships could be established to solve the problem?*

- Specialized scientific institutions and legislation bodies
- NGOs
- Local, grassroots organizations
- Military representatives
- International organizations

**6. General strategies**

- Shift the control of forest management to regional authorities and away from distant (Moscow) authorities.
- Support small businesses; develop local economies (non-timber forest products).
- Develop information resources (local to satellite scale).
- Consider the social and environmental effects of macro-economic policies and negotiations with the International Monetary Fund.
- Raise awareness of old-growth issues and formulate working and legal definitions of "old growth" forests.



# List of participants of the Siberian workshop

**Participants from Russia:**
Participants from Siberia:

**Krasnoyarskii Krai:**
Dr. Andrei Laletin, Programme Officer, Temperate and Boreal Forests Programme, IUCN.
Mr. Konstantin Yakovlev, Deputy Director, Friends of the Siberian Forests (FSF).

Ms. Tatjana Baskanova, Deputy Director, FSF

Dr. Vladimir Shienok, President, GAIA, Ltd.

Mr. Alexander Schepin, Senior Teacher, Krasnoyarsk State University for Architecture and Construction.

Ms. Tatjana Fedorova, Chief Associate, V.N. Sukachev FI SB RAS.

Ms. Svetlana Stepanova, Senior Teacher, Krasnoyarsk Pedagogical Institute.

Ms. Anna Laletina, Executive Director, FSF.

Ms. Irina Pitirimova, Deputy Director, Central Library, Institute of Chemistry SB RAS.

Dr. Dmitry Vladyshevsky, Professor, Krasnoyarsk State Technical University.

Ms. Natalja Mikhailova, Senior Specialist, Krasnoyarsk State University for Architecture and Construction.

Dr. Rosa Babintseva, Professor, Krasnoyarsk Agricultural University.

Mr. Vladimir Soldatov, Director, Forest Pathology Enterprise.

Dr. Galina Kuzmina, Manager, Regional Forest Service.

Mr. Nikolai Zubov, Chairman, Krasnoyarsk Branch, International Socio-Ecological Union.

Ms. Ludmila Kolesnikova, Chief, Revision Commission, FSF.

Dr. Vera Vlasenko, Senior Researcher, V.N.Sukachev IF SB RAS.

Dr. Viktor Ivanov, Senior Researcher, V.N.Sukachev IF SB RAS.

Ms. Ekaterina Matvienko, Deputy Chief, Protected Areas Department, Regional Forest Service.

Mr. Alexander Zabelin, First Deputy Director, Regional Forest Service.

Dr. Alexandra Volokitina, Senior Researcher, V.N.Sukachev IF SB RAS.

Dr. Valery Kuzmichev, Professor, Krasnoyarsk Technological University.

Mr. Konstantin Dunaev, Chief Associate, Institute of Biophysics SB RAS.

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Ms. Olga Zabortseva, Teacher, Lesosibirskii Pedagogical Institute (town Lesosibirsk, Krasnoyarskii krai),

**Altai Republic**
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**Altaiskii Krai**
Ms. Tatjana Kondrashova, Editor, TV-Radio complex “KATUN” (Barnaul).

**Irkutskaya Oblast**
Ms. Eugeniya Ponarina, staff journalist, Newspaper “Sovetskaya Molodjozh” (Irkutsk).

**Khakasia Republic**
Ms. Irina Sannikova, President, Ecological Fund “Chazy” (Abakan).

Dr. Gennadii Devjatkin, Deputy Director, State Nature Preserve (zapovednik) “Malyi Abakan-Chazy” (Abakan).

**Novosibirskaya Oblast**
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Ms. Eugeniya Chelaznova, Doctorate Student, CSBG SB RAS (Novosibirsk).

Ms. Maria Dubrovina, Deputy Director, Ecological Druzhina (NGO) of Novosibirsk State University (Novosibirsk).

**Tomskaya Oblast**
Mr. Lev Blinov, Chairman, Tomsk Ecological Students Inspection (Tomsk).

**Tyva Republic**
Dr. Julia Nazarova, Chief, Administration of the President of Tyva Republic (Kyzyl).

Participants from other Regions of Russia:

**Bryanskaya Oblast**
Mr. Oleg Markin, Executive Representative, NGO "Viola." (Bryansk).

**Mary-El Republic**
Dr. Igor Jakovlev, Associate Professor, Joshkar-Ola State Technical University (Joshkar-Ola).

**Moscow City**
Mr. Vladimir Moshkalo, Director, IUCN-CIS office.

Ms. Elena Fjodorova, Accountant, IUCN-CIS office

**Primorskii Krai**
Mr. Anatolii Lebedev, Director, Bureau of Regional Public Campaigns (Vladivostok).

Mr. Ivan Kyalunziga, Chief, Iman group of indigenous Udege people (Novopokrovka village, Krasnoarmeiskii district).

## Participants from abroad:

Mr. Eric Beckwitt, President, Sierra Biodiversity Institute (Nevada City, CA, USA).

Mr. Thomas Dunklin, Doctoral Student, Geological Dept., Humboldt State University (CA, USA).

Mr. Michael Jones, Regional Director, Pacific Rim Taiga, Inc., (Portland, OR, USA).

Ms. Rosario Ortiz, Executive Representative, Global Secretariat of the Initiative on Underlying Causes of Deforestation and Forest Degradation (Bogota, Colombia).

Mr. Alexander Urushadze, Senior Specialist, Ministry of Economy, (Tbilisi, Georgia Republic).

# European Urals Region Workshop

## European-Urals Region Workshop

EMC Golitsyno, Moscow
19 – 21 October 1998

**Introduction**

The third of these workshops, on the challenges facing the forests of European Russia and the Urals, was held in the town of Golitsyno, near Moscow, from 19 – 21 October 1998. Like its predecessors, the workshop brought together a broad range of local, environmental, non-governmental organizations (NGOs), government officials, and scientists from different territories of European Russia and the Urals, as well as federal government officials and national NGOs from Moscow, and members of the donor and foundation communities.

The workshop was formally opened by Andrew Deutz, Coordinator of the IUCN Temperate and Boreal Forest Programme, and Vladimir Moshkalo, Director of the IUCN-CIS office. The workshop began with a presentation on the sector-wide changes needed to achieve sustainable forest management and an overview of the All Russian Research and Information Centre for Forest Resources (ARICFR) paper on the forests of European Russia and the Urals presented by one of its co-authors, Dr. Andrei Filipchuk. The workshop then employed participatory methods to enable the Russian stakeholders to articulate what they saw as the major obstacles and opportunities facing forest conservation and sustainable development in this region of Russia. After generating a list of twenty "urgent forest issues" the participants prioritized these issues. They ranked the following six issues as top priorities:

1. Problems with developing regional forest legislation and coordinating it with the federal forest legislation.
2. The need to extend the network of specially protected natural areas and to develop the ECONET forest programme.
3. The need to find workable solutions to the problem of forest fires.
4. The restoration of forests that have been polluted by radioactivity, and modification of their traditional use to safeguard the health of local communities.
5. The development of partnerships between state bodies and public organizations.
6. The need to balance the ecological, economic, and social aspects of sustainable development and to find solutions to the problems of the forest sector at the political level.

Participants then broke into three working groups, each of which was asked to develop strategies for addressing each priority issue in the context of European Russia and the Urals. The participants were asked to reflect on three strategic questions: 1) What needs to change to address the issue? 2) Where do opportunities exist for influencing that change? and 3) What partnerships need to be developed to bring about this change? Workshop participants produced the following sets of recommendations for strategies and approaches to address each of the priority issues:

**Issue 1. Problems with developing regional legislation and coordinating it with the federal forest legislation.**
In addressing this issues, workshop participants focused primarily on the practices of the Federal Forest Service, suggesting that it should increase the weight that it gives to the ecological benefits of forests relative to the economic benefits; that it should revise downward its calculations of the annual allowable cut; and that it should require better forest restoration practices following harvesting. The participants also recommended that regional authorities

should better incorporate sustainable forest management principles into their legislative and regulatory frameworks.

**Issue 2. Extension of the Specially Protected Natural Areas (SPNAs) network and development of the ECONET forest programme.**
Participants discussed several issues related to protected areas in Russia. First, they address Specially Protected Nature Areas (using Zakazniks as an example) which are reserves that are often established temporarily. Participants called for greater transparency in and financing for their operation, and called for an evaluation of their protective status. The participants also called for the establishment of an ecologically representative system of forest protected areas which could be integrated into the European ECONET structure.

**Issue 3. Finding workable solutions to the problem of forest fires.**
Almost all forest fires in the European part of Russia are caused by human activity. Workshop participants noted with alarm that the incidence of forest fires have been increasing in Russia, while at the same time, funding for fire prevention and control has been declining. Participants recommended a number of critical actions to address this situation, including conducting an analysis of the underlying causes of forest fires, improving ways to assess the economic, social and health impacts of forest fires, launching a public education campaign, and building new partnerships with local communities and the international community.

**Issue 4. Restoration of radioactively polluted forests and modification of its traditional use to protect local communities.**
Radioactively contaminated forests were also an issue of great concern to the workshop participants. Even more than a decade after the Chernobyl nuclear accident, contamination is still a serious problem in some areas of European Russia. As a result of the economic difficulties in Russia, many rural communities have become increasingly dependant on forest resources for food and fuel, thus increasing their risk of exposure from secondary sources. Participants recommended a series of strategies to address these issues, including improved monitoring of contaminated sites and exposure levels, renewed public awareness efforts, forest restoration activities, and certification of “radiation-free” forest products.

**Issue 5. Developing partnership between state bodies and public organizations.**

**Issue 6. The need to balance the ecological, economic, social, and cultural aspects of sustainable development and to find solutions to the problems of the forest sector at the political level.**

The Workshop participants considered these two issues to be interconnected, and therefore treated them together. They recognized the need to increase the transparency and accountability of decision-making with respect to both the objectives and the means of forest management in Russia. To accomplish this, they recommended the development of a stronger legislative framework and the development of administrative practices to foster dialogue and cooperation between government agencies and the civil society.

## Issues identified at the European-Urals workshop

They also called attention to the need for a stronger and better financed NGO movement in Russia that would be able to engage more constructively with government agencies and the public.

The need to:

- Improve the coordination and integration of regional and national forest legislation.
- Extend the network of specially protected forest areas, and to develop the ECONET forest programme.
- Find workable solutions to the problem of forest fires.
- Restore radiation-contaminated forests and bring about changes in the traditional use of timber and non-timber forest products by the local population.
- Improve partnerships between state bodies and public organizations.
- Make the transition from “industrial” forest management to “ecosystem” management.
- Balance the ecological, economic, social, and cultural aspects of sustainable development and find solutions to the problems of the forest sector at the political level.
- Consider non-commercial interests in the process of forest use.
- Combat the degradation and decline of spruce and oak forests.
- Make the data on forests available to the public.
- Define, map, and protect old-growth forests.
- Separate the joint forest management and forest conservation functions of the Federal Forest Service.
- Protect forests on mountains.
- Combat corruption in the forest sector.
- Increase the use of non-timber forest products.
- Create incentives for the sustainable use of forests.
- Coordinate the multiple use of forests to decrease the negative impacts on them.
- Develop appropriate methodological approaches, classifications and terminology in forestry, forest management and conservation.
- Study the ecology of temperate and boreal forests.
- Allocate more funds to scientific research on forests.

## Strategies developed by the working groups at the European-Urals workshop

**Issue 1. Problems with developing regional legislation and coordinating it with the federal forest legislation.**

*What needs to be changed or done:*

- Remove perverse incentives such as low payments for forest-resource use (for example, stumpage fees that are too low).
- Improve forest protection.
- Improve the quality, growth and surface of the forest that is restored:
  - the volume of major areas logged is concentrated in natural and secondary forests;
  - eliminate falsification in the accounting of forest restoration efforts.
- The Federal Forest Service should value the ecological services of forests as much as they value the economic benefits from logging the forest.
- Large areas of forests are lost each year due to fire and pests. Even though these areas are greater than the area harvested annually, they are not adequately accounted for in the calculation of annual allowable cuts.
- Ecological functions in the national parks are not always well-protected; national parks are managed by the Federal Forest Service.

*Possible solutions:*

- Revise stumpage fees for logging standing wood.
- Develop legal mechanisms that promote priority for forest protection within all forest-service divisions.
- Develop a mechanism whereby forest users are responsible for restoring the forest following their activity.
- Separate the functions of forest protection from that of timber harvesting.
- Include the volumes of wood lost due to fires and pests in the calculation of annual allowable cuts. The result will be a decrease in the annual allowable cut.
- The National Parks should not be managed by the Federal Forest Service because its primary mission is the economic development of forests rather than their protection.

Participants also proposed the following recommendations to improve the situation:

- Involve the public in discussions concerning the legislation:
  - collect critical, constructive remarks;
  - analyse negative experiences and their underlying causes;
  - use positive experiences as models.
- Develop mechanisms to add or amend legislation.
- Encourage regional governments to improve their forest legislation by adding norms for sustainable forest management.
- Share recently developed regional forest legislation that include norms of sustainable forest management with the federal and regional forest services.

**Issue 2. Extension of the Specially Protected Natural Areas (SPNAs) network and development of the ECONET forest programme.**

*What needs to be changed or done with regard to the SPNA network:*

- Many SPNAs (i.e., Zakazniks) exist only on paper.
- Some SPNAs (i.e., Zakazniks) are only temporary.
- SPNAs are inadequately financed.

*Possible solutions:*

- Ask the State Committee of the Russian Federation on Environmental Protection to evaluate the protective status of SPNAs.
- Finance SPNAs with a separate budget line; financing must be increased as current support is inadequate.
- Ask for more transparency and public participation in the development of the SPNA network.

*What needs to be changed or done with regard to old-growth forests:*

- Lack of an adequate protective status of these territories; absence of ECONET programme in Russia.
- The public ignores the ecological role and status of old-growth forests. They need to be informed that the old-growth forests of Russia are an important part of the world's heritage.

*Possible solutions:*

- Develop and adopt legal mechanisms for setting aside ecologically valuable territories for establishing SPNAs.
- Involve both government officials and the NGO community in reviewing the proposed laws on SPNAs and projected protected territories to be established.
- Develop a conceptual framework for the establishment of ecological networks wherein SPNAs would be the main element, interconnected with ecological corridors. Criteria for the selection of corridors and the use of natural resources in the SPNAs need to be developed.

**Issue 3. Finding workable solutions to the problem of forest fires**

- The number of ignitions in forests has increased.
- Forest fires result mostly from anthropogenic activities.
- There is a lack of financing for preventing and controlling forest fires.

*What needs to be changed or done?*

- Approve the Federal Target Program: "Protection of Forests from Fires."
- Absence of specific budget allocation for fire-management.
- Finding the underlying causes of forest fires and raising the awareness of local people.
- Awareness of the public concerning the negative impacts of forest fires.
- Involvement of local communities in fire prevention activities.
- Sensitizing local communities to the overall state of surrounding forests.
- Interagency cooperation needs to be strengthened.

*Possible solutions:*

- Encourage additional research on monitoring, including remote sensing techniques and implementing these techniques in the field.
- Improve the methodology for accounting and assessing damage from forest fires.
- Provide the forest fire-prevention service with new technical facilities.
- Establish new types of partnerships, especially at the international level.
- Fund-raise for items 1-3

*What partnerships need to be developed to bring about this change?*
- International partnerships in the field of monitoring.
- Implementation of joint educational projects on fire-prevention.

**Issue 4. Restoration of radioactively polluted forests and modification of its traditional use to protect local communities.**

- Absence of relevant control by governmental forest agencies of increased radioactive contamination from secondary sources.
- Absence of a long-term integrated plan addressing radioactive contamination of forests.
- Use of forest products, including edible ones, that were not "radiation-free" certified, inside and outside the contaminated zone.
- Accelerated decline of forests exposed to radiation.
- Increased danger of fire in contaminated forests.

*What needs to be changed or done?*
- Strengthen the coordination of the activities of various agencies addressing the issue of the radioactive contamination of forests.
- Implement the "radiation-free" certification of forest products.
- Assess the implementation of the current system for the radiological monitoring of forests, including the regular notification of local populations about associated health risks.
- Improve and implement norms for forest use in contaminated areas.

*Possible solutions:*
- Raise public awareness through the mass-media and by participating in public hearings.
- Supply the population with individual monitoring equipment (meters).
- Finance specific forest activities in contaminated areas.
- Encourage scientific research on the effects of radioactivity on human health and the environment.

*What partnerships need to be developed to bring about this change?*
- International partnership in the field of monitoring.
- Implementation of joint educational projects on radioactive issues.

**Issue 5. Developing partnership between state bodies and public organizations.**

**Issue 6. The need to balance the ecological, economical, social, and cultural aspects of sustainable development and to find solutions to the problems of the forest sector at the political level**

The workshop participants found that these problems were interconnected and consequently decided to tackle them together. The following problems were identified:
- Forests have multiple functions and different groups have different interests in them; therefore, mechanisms of cooperation should take these interests into account.
- There is a need for a balanced approach to sustainable forest management (SFM); i.e., one that incorporates ecological and social as well as economic aspects.

- Given the present economic situation, the problems of the forest sector surpass the technical competency of forest-management agencies and require the political will, understanding, and commitment to tackle legislative and regulatory issues.
- Nongovernmental partners (NGOs, local communities, indigenous groups) generally lack domestic financial support and large constituencies, are usually poorly organized, and don't have much bargaining power. Relations between the state and nongovernmental partners are often poor.

*What needs to be changed or done:*

- Develop a legislative framework to foster cooperation between governmental and nongovernmental actors.
  - defining rights and responsibilities in the decision-making process about forest conservation and management
  - rights to information and transparency in decision-making.
  - lack of incentives, especially financial and tax incentives, for supporting nongovernmental actors.
  - need for accountability and transparency in the dialogues and negotiations between the private sector, the government, and other actors.
- Raise public awareness and/or environmental education, including information about the rights and responsibilities of various partners (such as nongovernmental actors and politicians).
- Reintroduce a balance between the social, economic, and ecological aspects of sustainable forest management and especially re-emphasize the social and ecological aspects at all levels, including the political level.
- Non-governmental partners need to be politically and financially strengthened.
- Build political and administrative will for implementing legislative/policy changes.

*Possible solutions:*

- Use the mass media to raise public awareness.
- Encourage NGOs to be more aggressive and constructive in their confrontation with governments.
- Use independent lawyers to resolve environmental disputes.
- Rely on the dynamic scientific community.
- Take advantage of the multiple interests between different governmental agencies and different levels of government.
- Use international pressure and processes, as well as markets for certified products (e.g., 1998 Lisbon Ministerial Declaration).
- Promote and replicate successful small-scale partnership experiences.
- Build capacity for non-governmental actors.
- Find advocates within governments.

However, changing stakeholder behaviour requires funding, training people, finding sympathetic ears in governments, and technical competence.

# List of Participants of the European Russia and Urals Region

## Participants from Russia:

### Participants from Moscow:

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Ms. Liya Korobova, Staff Officer, Know How Fund, British Embassy.

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Dr. Alexei Yaroshenko, Forest Campaigner, Greenpeace-Russia.

Participants from other regions of Russia:

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Dr. Andrei Laletin, Programme Officer, IUCN Programme on Temperate and Boreal Forests–Russia, (Krasnoyarsk.)

Dr. Roman Yushkov, Assistant Professor, Geography Department, Perm State University, (Perm).

Dr. Igor Yakovlev, Mariy State Technical University, (Yoshkar-Ola).

Mr. Yakov Yushkov, Coordinator, Association of Kolskyi Saams, (Murmansk).

## Participants from abroad:

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Mr. Henrik Holst Zeltner, Officer, Danish Ministry for Environment and Energy, Danish Forest and Nature Agency (Copenhagen, Denmark).

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# National Workshop

## National Workshop

EMC Golitsyno, Moscow, Russian Federation
21-23 October 1998

**Introduction**
The final IUCN workshop in the series, on "The Future of Forest Conservation in Russia," was held in Golitsyno (near Moscow) from 21-23 October 1998. Like the previous workshops, this one brought together a group of regional and national NGOs, Russian government officials, and scientists, as well as representatives from donor agencies and international NGOs active in Russia. The workshop included key participants from each of the previous regional workshops held in the Russian Far East, Siberia and the European-Urals region to ensure continuity in the discussions.

The purpose of the overall series of workshops for IUCN was to determine what IUCN's niche could be in improving forest conservation and management in Russia. The first three regional workshops had generated lists of priority issues for each region and mapped out general strategies to address these issues. The final, national level workshop was designed to:

1. Synthesize the results of the previous workshops;
2. Verify that the regional workshops had identified relevant issues for the regional and national levels;
3. Examine the feasibility of the strategies developed at the regional workshops; and
4. Identify next steps for IUCN and other partners.

The meeting was chaired by William Jackson, IUCN Forest Conservation Program Coordinator and Vladimir Moshkalo, Director of IUCN's Office for the Commonwealth of Independent States. The opening session was addressed by Amirkhan Amirkanov, Deputy Chairman of the Russian State Committee on Ecology and Victor Teplyakov, Chief of the Research and Technology Department of the Federal Forest Service of Russia. The workshop then proceeded with presentations from Andrei Filipchuk of the All-Russian Research and Information Center for Forest Resources on the state of Russia's forests, and by Julia Gorelova of the Biodiversity Conservation Center on legal and political challenges of forest conservation in Russia. Finally, representatives from each of the three regional workshops provided overviews of the results of the previous workshops.

At this point, the workshop turned to a facilitated discussion of the results of the regional workshops to examine the following strategic questions: Did the regional workshops identify the right issues? Are there additional priority issues that should be added? Were there some issues that were identified in one region that apply to other regions as well? The participants agreed that the regional workshops had indeed identified the right issues, though several pointed out that many of the priorities in only one region should be considered trans-regional priorities.

For the rest of the workshop, participants were asked to work in small working groups, based on their interests and expertise, to examine the feasibility of making progress on the various priorities and what the next steps should be for IUCN and others. In order to better organize their work, the participants grouped the individual priorities from each of the regional workshops into four "super-categories" and then assigned themselves to one of the "super-categories." The issues were broken down as follows:

1. Assessment of Forest Benefits
- Forest use diversification and NTFPs (Far East)
- Improving public awareness of ecological values of forests (Siberia)
- Improving stakeholder involvement in forest management (European-Urals)

2. Lessening Damage from Fire and Pollution
- Forest Fires (Far East, Siberia, European-Urals)
- Impacts of rocket fuel (Siberia)
- Impacts of radiation (European-Urals)

3. Developing an Ecosystem Approach to Forest Management
- Incorporating ecological values into forest inventories (Far East)
- Application of criteria and indicators (Far East, Siberia)
- Coordinating federal and regional forest legislation (European-Urals)

4. Old-growth Forests and Protected Areas
- Lessening the biodiversity impacts of logging (Far East)
- Conservation of old-growth forests (Siberia)
- Developing a network of Specially Protected Nature Areas (ECONET) (European-Urals)

After reviewing the strategies developed during the regional workshops to address priority issues, each working group was asked to consider the following questions:
1. Is it feasible to make progress on the issue within 3-5 years?
2. Are others already working on the problem?
3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?
4. What are the next steps for addressing the issue?

The detailed results of these discussions are presented below.

Based on the results of this series of workshops, it is clear to IUCN that our potential niche in forest conservation and management in Russia revolves around our ability to serve as a catalyst and a convener.

The first potential role for IUCN is as a networker. As a global Union, IUCN has the ability to mobilize technical expertise in other countries as well as the expertise of a small but growing network of IUCN institutional members and individual commission members within Russia, which can be engaged to support forest conservation.

The second role for IUCN is to function as a facilitator in helping to build new partnerships with an increasingly mobilized civil society within Russia, as well as with organizations outside of Russia.

And a third potential role for IUCN is to make the connections between policy and practice by learning from field experiences in Russia and sharing these lessons learned with Russian stakeholders and the rest of the world. This may be particularly valuable to IUCN members and partners considering or reconsidering how best to deploy their financial and technical resources for conservation in Russia.

**Issue 1. Economic valuation of ecological functions of forest resources**

The understanding of the value and proper use of non-timber forest resources (benefits from the forest) has not been well documented in Russia. Furthermore, forests in the past have not always been used sustainably and a significant network of protected forests has not yet been established.

The working group considered the following benefits from the forest and assessed the possibility for their use on the basis of economic sustainability.

1. Protection of the ecological functions of forests, including their use by the public for their spiritual asset.
2. Non-timber forests products.
3. Protection and enhancement of biodiversity.

There are different ways to value forests. If they are valued for their carbon sequestration potential, they will be considered the main component of the biosphere, because they regulate the carbon cycle. In this context, organizing workshops within the framework of IUCN on the development of agreements on the carbon sequestration potential of forests would be useful.

*1. Is it feasible to make progress on the issue within 3-5 years?*
The feasibility of achieving these goals depends to a great extent on the general economic situation in Russia and in the world; as well as on the increasing ecological crisis and progress in the ecological thinking.

However, it will be possible to make progress on this issue within 3-5 years, if significant obstacles are overcome in Russia.

1. Foresters are not instructed to collate appropriate data on the ecological value of forests;
2. Foresters are not interested in valuating non-timber forest products and wildlife because they only make profit from timber.
3. Difficulty in changing mentality of government officials and industrials regarding the value and use of natural resources.

*2. Are others already working on the problem?*
Yes, some workshop participants and other groups are collecting data on the state of forest resources; trying to protect forests from fire; coordinating the interests of different groups of forest users, are trying to improve the forest legislation. Many are working on the ecological education of all forest users and improving skills of professional foresters.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*

IUCN

- Organization of workshops on valuation of the ecological functions of forests;
- Analysis and constructive criticism of the existing criteria and indicators of sustainable forest use.

Partners

- Identification of personal interest and self-promotion in managerial structures;
- Finding solutions to environmental vandalism (such as cutting down a tree to collect cones);

- Analysis and constructive criticism of the existing criteria and indicators of sustainable forest management.
- Achieve external audits to evaluate the economic management of forests.

*4. What are the next steps for addressing the issue?*

1. Evaluate how users of the forest benefit from it.
2. Assess objectively the ecological values of forests and identify the different methods used to evaluate them.
3. Estimate the costs of developing activities that will increase the ecological and economic benefits from the forest.
4. Develop marketing studies, to determine what price different consumers are ready to pay for non-timber forest values.
5. Divide benefits into three groups: those that need subsidies, those that are the self-supporting and the profitable ones.
6. Assessment of the type of non-timber forest values that might need subsidies.

**Issue 2. Decreasing the negative impacts of forest fires and pollution.**
***I) Impacts of rocket fuel on forests:***

*1. Is it feasible to make progress on the issue within 3-5 years?*

It is realistic to make the following progress within 3-5 years:

- Assess the area of forests damaged by the long-range transport of pollutants;
- Assess the damage to health of wildlife and local populations;
- Hold a workshop on impacts of pollution on environmental and human health;
- Propose changes in the legislation so that the Russian Space Agency (RSA) will pay for restoring the ecological damage caused by its activities;
- Obtain access to reliable information on impacts of rocket launching and rocket fuel on forest ecosystems and population health;
- Implement scientific measures for decreasing damage to forests, caused by rocket waste.

*2. Are others already working on the problem?*

- Committee on Ecology of the State Duma of the Russian Federation;
- Russian Space Agency;
- Military-Space Forces;
- Regional and local state environmental organizations;
- Nongovernmental organizations (NGOs);
- Scientific organizations;
- Mass media;
- Local population.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*

IUCN:

- Fund-raising for other groups;
- Coordination role for other groups;
- Organization of conferences and seminars;
- Preparation and publishing of materials on the issue;
- Involve experts such as scientists, private firms, and organizations to help find solutions or build capacity in Russia.

*4. What are the next steps for addressing the issue?*

1. Develop and implement regional pilot projects;
2. Develop a strategic plan and programme to improve the situation;
3. Establish a special fund to help local groups and State Committee for the Environment to resolve the issue.

***II) Improving the use of forests on radioactively polluted National lands (Forest Fund)***

*1. Is it feasible to make progress on the issue within 3-5 years?*
Within 3-5 years, it will be possible to:
- Increase the coordination of the activities of different stakeholders in the process of finding solutions to the use of radioactive polluted forests;
- Establish a "radioactive–free" certification process for the forest products;
- Develop the system of radioactive monitoring with associated population awareness raising according to its results;
- Improve the legislation concerning forest management on territories radioactively contaminated;
- Raise public awareness on impacts of radioactivity on public health through public hearings, and with the help of the mass media;
- Provide the public with individual means of radioactive control (dosimeters);
- Fund-raise to restore polluted forests;
- Encourage scientific research on impacts of radioactivity on human and environmental health;

*2. Are others already working on the problem?*
- Committee on Ecology of the State Duma of the Russian Federation;
- Ministry of Emergency Situations of the Russian Federation;
- Russian Scientific Institute for the Use of Chemicals in Forestry;
- Units of civil defense;
- Bodies (Goskomecology, Rosleskhoz, Minatom, Minzdrav, Gossanepidnadzor of Russia, etc.);
- Scientific and educational organizations;
- NGOs;
- Mass media.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*
IUCN:
- Fund-raising;
- Coordination role;
- Organization of conferences and seminars;
- Preparation and publication of materials on the issue;
- Involve experts such as scientists, private firms, and organizations to help find solutions and build capacity in Russia.

*4. What are the next steps for addressing the issue?*
1- Develop partnerships at the international level in the field of monitoring, carrying out additional scientific research, including methods for remote sensing;
2- Implement joint educational projects on nuclear themes;
3- Develop regional pilot projects;
4- Develop a concept paper and programme to improve the situation;
5- Establish a special fund to help local groups and State Committee for the Environment to resolve the issue.

***III) Finding an integrated solution to the problem of forest fires***

*1. Is it feasible to make progress on the issue within 3-5 years?*
Within 3-5 years, it will be possible to:
- Determine whether available funds to combat forest fires were adequately used;
- Determine whether funds from foreign help were efficiently used;
- Fund-raise to prevent forest fires;

- Lobby for the adoption of the State programme "Protection of forests from fires" and analyse the efficiency of the programme;
- Improve the coordination of governmental and NGOs;
- Develop partnerships between different types of organizations, especially in regions;
- Raise awareness of the public to the importance of protecting forests from human-induced fires;
- Monitor forest fires using remote sensing methods;
- Improve the method to determine fire damage to forests;
- Upgrade the fire prevention and control equipment of forest protection services;
- Determine criteria to select which forest fires to combat in a given region.

*2. Are others already working on the problem?*

- Committee on Ecology of the State Duma of the Russian Federation;
- Russian Federation Government;
- Federal Forest Service;
- Aviation base for the prevention of forest fires;
- Ministry of Emergency Situations of the Russian Federation;
- Ministry of Defense of the Russian Federation;
- State Committee for the Environment;
- Scientific organizations;
- Public organizations;
- Partnerships on experience and information exchange between the corresponding Russian and foreign organizations;
- Educational organizations.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*

IUCN :

- Organize a workshop on protecting forests from fires, tentatively in early 1999, with participation of all interested stakeholders: state services, industries, scientific and public organizations;
- Coordination role;
- Preparation of material to be published on the issue;
- Involve experts such as scientists, private firms, and organizations to help find solutions and build capacity in Russia.

*4. What are the next steps for addressing the issue?*

1. Develop concept papers and programmes;
2. Partnership at the international level in the field of monitoring, encouraging scientific research, especially on remote sensing methods;
3. Develop joint educational projects with all stakeholders.

**Issue 3. Ecosystem approach to forest management**

The factors determining the need to use an ecosystem approach in forest management are as follows:

- forest ecosystems are in a critical state in several regions due to intensive industrial forest activities;
- there is a need to integrate the multiple uses of forests and increase forest productivity;
- need to implement the international agreements and Russian national legislation in the field of environmental protection and use of natural resources;
- develop a certification system to prove the forestry products were harvested legally and according to specific standards;

- the need to protect the ecological functions of the forest ecosystem as well as the integrity of the genetic diversity of animal and plant species;
- the necessity to use forests sustainably, integrating the multiple use of natural resources, both at the industrial level and from the point of view of Indigenous people;
- the necessity to maintaining the balance of nature.

*1. Is it feasible to make progress on the issue within 3-5 years?*
We expect that gradually, progress in managing forests from an ecosystem approach will occur but it will be an on-going process. We think that improved management will first be observed in the traditional use of resources and in the management of ecological disasters. The greatest challenge will be to manage the whole Russian territory covered with forests in a sustainable manner.

*2. Are others already working on the problem?*
Several national and international organizations are working in Russia and trying to introduce the ecosystem approach to forest management.
The Russian organizations working in this field include:
- Federal Forest Service and the State Committee for Environmental Protection and their territorial units;
- Committee on Ecology of the State Duma (Lower Chamber of the Russian Parliament);
- academic and departmental research organizations (institutes);
- Russian national and regional groups.

We can only provide a preliminary list of international partners. Unfortunately, the lack of knowledge of the different stakeholders working on this issue can often result in duplication of efforts. The international organizations can be grouped into four categories according to the nature of their help or cooperation:

- Technical Assistance for the Commonwealth of Independent States (TACIS) (project with Finnish experts regarding the management of national parks and forests), USAID (Buryatian, Baikalsky and Ussuriisky projects), Government of Finland (project on sustainable forest management and biodiversity for the North-East of Russia. The objective of this project is to harmonize forests and environmental interests), UNEP, GTZ, etc.
- Working groups of international environmental agreements;
- World Bank, European Bank for Reconstruction and Development, etc.
- WWF, IUCN, etc.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*
IUCN:
- Raise awareness and analyse the situation;
- Participate in the development and implementation of environmental strategies;
- Fund-raise;
- Help in setting priorities;
- Ecological educational;
- Develop new policies;
- Negotiate at the governmental and intergovernmental level.

It is through these functions that IUCN could support the work of other partners.

At the same time the role of other partners in the solution of this problem could be both strictly oriented to their main professional or public activity and include temporary and non-specific activities. In particular, research institutions could 1) develop scientific principles for using the ecosystem approach in forest management, but also 2) select, in collaboration with the specialists of the forestry service and forest users, the most efficient, feasible and regionally acceptable way of implementing this approach. Research organizations could also raise public awareness with the assistance of the mass media.

*4. What are the next steps for addressing the issue?*

1. make a literature review of the existing Russian and international experience on ecosystem approach to forest management,
2. review the existing and planned forest use,
3. raise environmental awareness and increase skills of professional forests,
4. raise environmental awareness of the public using the mass media,
5. develop scientific methods for implementing the ecosystem approach,
6. develop scientifically-sound recommendations for specialists in forestry and forest users,
7. establish a network of model forests using the ecosystem approach for their management,
8. establish public institutes to assess the impacts assessments of potentially harmful projects,
9. determine parameters and organize a federal network for monitoring the state of forest ecosystems,
10. develop a forest legislation, projects and programmes for improved forest use including mechanisms for their implementation, that are regionally and environmentally acceptable.

**Issue 4. "Old-growth Forests and ECONET".**
***I) Old-growth forests.***

At present, the concept of "old-growth forests" include both the slightly disturbed forests and the large natural tracts of boreal forests (taiga). They can be defined in the following way.:

*Slightly disturbed forests*
These are forests that develop over a long period of time without human-induced catastrophic disturbances. These patches of natural forests are surrounded by secondary forests or cultivated lands. Two types of disturbances shape the landscape of these forests: large disturbances such as fire and insects and smaller-scale disturbances such as wind-throw and natural death of trees. Furthermore all layers of forests are present in the forest.

*Large natural tracts of boreal forests (taiga)*
These vast boreal forests preserve the mosaic of landscapes and allow for the survival of populations of large vertebrates. The local population is not involved in the industrial use of natural resources. There is not an extensive road network in the area.

Both categories of forests are important for their protection of biological and landscape diversity. Because the anthropogenic impact on these areas is low, they can be used as "control" forests. Data from these forests could be used to compare effects of logging in intensively managed forests.

*1. Is it feasible to make progress on the issue within 3-5 years?*
Yes, but there is an urgency to protect old-growth forests because in a number of regions they are threatened by the mining and forest industries. Within five years, many could have disappeared.

*2. Are others already working on the problem?*
Besides the workshop's participants, the following groups are involved in protecting old-growth forests:
- The Buddhist Asian-Pacific Conference for Peace;
- The Association of Shamans (Buryatia);
- The Association of the Green Movement of Karelia;
- The World Resources Institute;
- The Forest Institute of the Siberian Branch of the Russian Academy of Sciences;
- Local NGOs.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*
The role of ***IUCN*** and its ***partners*** can consist in:
- Coordinating activities to locate, protect, and map certain tracts of slightly disturbed forests;
- Raising governmental awareness of the importance of protecting a network of slightly disturbed forests.

*4. What are the next steps for addressing the issue?*
1. Compiling data on the state of old-growth forests using large-scale and regional maps. Investigate what are threats to the old-growth forests and prioritize certain actions for their protection.
2. Elaborate a legislative mechanism for protecting significant portions of old-growth forests from 1) industrial forest and natural resources extraction, 2) the construction of a permanent network of roads, 3) the establishment of permanent settlements.
3. Conferring a protection status to significant old-growth forests and monitoring their state (integrity).
4. Keeping the public and the media informed of the development of the protected old-growth forests network.

***II) The Network of Specially Protected Natural Areas (SPNAs) and forests fulfilling predominantly protective functions***

Statement of the Problem
- Most SPNAs are made up of reserves ("zakaznik"). However, many of these exist only "on paper"(i.e. they are not really protected), or were established temporarily.
- The "norms of intervention" for forest management (in particular pre-harvest thinning of the stands) allows for intensive forest management in SPNAs.
- The norms of intervention and their enforcement in protected areas do not protect them from intensive industrial exploitation in these forests.
- In many specially protected natural areas ("zakazniks") and other specially valuable natural areas, the forest industry is present and harvests a substantial volume of wood. Mining and agricultural activities are also allowed in some others.

*1. Is it feasible to make progress on the issue within 3-5 years?*
The issue can be solved within 3-5 years.

*2. Are others already working on the problem?*
The issue is one of the most popular among environmental NGOs.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*
IUCN:
- To coordinate NGOs' efforts to sustain the existent network of SPNAs. Raising public's awareness to the issue of protecting of specially valuable forest areas. Lobbying for the sake of SPNAs and other specially valuable forest areas.
- The World Resources Institute could monitor the state of specially protected areas with the help of local NGOs.

*4. What are the next steps for addressing the issue?*
1. Convince the Russian Federal Forest Service not to allow the forest industry to log in SPNAs.
2. Divide the functions of forest protection and timber harvesting and marketing to avoid the commercial interest of forest industries to lobby for more wood resources in protected areas.
3. To involve NGOs in elaborating and monitoring the protective status of SPNAs.
4. To elaborate and improve the protective status of SPNAs, particularly the "projected" reserves and the temporarily established areas.
5. To remove the task of protecting SPNAs and other protected areas from the Russian Federal Forest Service.
6. To develop and adopt a legal mechanism to protect exceptional natural areas from industrial activities. Such natural areas could be turned into SPNAs once SPNAs legal status has been addressed and adequately protected.

***III) The Ecological Network (ECONET)***

There is a need in Russia to develop the ECONET programme. The network will include the existing SPNAs, slightly disturbed forests, and large tracts of boreal forests (taiga) connected by ecological corridors. The criteria for their establishment and the legal status of these protected areas must be developed.
ECONET will include:
1. SPNAs
2. Slightly disturbed forests and large natural tracts of boreal forests (taiga);
3. Natural sites having a high ecological, cultural, historic or aesthetic value from the view point of the local population.
4. Pre-tundra forests.
5. Mountainous forests.
6. Water-protection and spawning grounds protective areas.

Unfortunately, many local NGOs are unaware of the ECONET programme. Some efforts will be needed to raise awareness of these NGOs and include them in the process.

*1. Is it feasible to make progress on the issue within 3-5 years?*
Progress is expected at the level of individual regions.

*2. Are others already working on the problem?*
Not enough NGOs (and workshop participants) are involved in the issue.

*3. What possible role is there for IUCN on the issue? What role is there for others? How can IUCN support the work that others are doing?*
IUCN:
The coordination of the ECONET programme and of an information clearinghouse (center). Local NGOs could gather information on the regional network of SPNAs and other valuable forest areas according to ECONET criteria.

*4. What are the next steps for addressing the issue?*
1- Resolving the protective status of existing SPNAs.
2- Improve the protection and number of slightly disturbed forests and of large tracts of natural boreal forest (taiga).
3- Establishing the ECONET programme in Russia. The development of ecological corridors linking protected areas.
4- Establishing the information-coordination center of the ECONET programme.
5- Keeping the public of regions informed of the development of the ECONET programme.
6- The production of maps (within individual regions) of SPNAs and other potential components of the ECONET.

# List of Participants of the National workshop

**Participants from Russia:**

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# Annex 1. The State of Russian Forests

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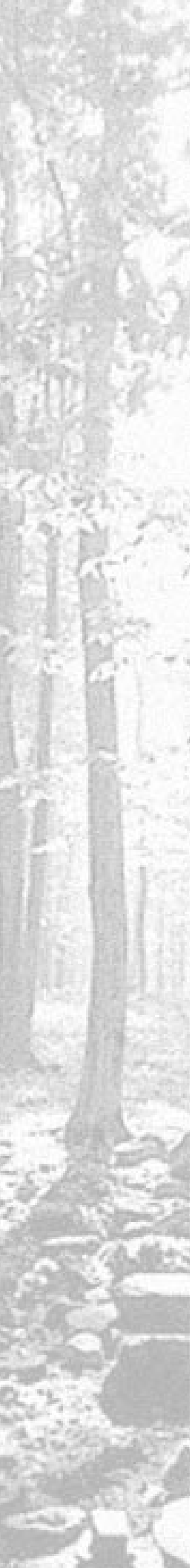


## Annex 1. The State of Russian Forests

### Introduction

Russia's forest sector is of global importance because of its size, carbon-storage capacity, biodiversity, and extent of its forest products (timber and non-timber). It is equally important nationally for its contribution to the gross domestic product, export earnings, and employment, as well as for its vital role in the lives of indigenous peoples. A long history of forest management has made Russia a recognized leader in forest conservation, research, and development. However, the centralized planning policies and the recent transition to a market economy have affected the situation.

Despite vast resources and the global demand for forest products, the Russian forest sector has been experiencing severe management problems that threaten socio-economic stability and the ecological integrity of the forests. These problems are further compounded by insufficient public access to information and by the lack of mechanisms for public participation in decision making. These issues are severe impediments to the conservation and sustainable development of Russia's forests, and they urgently need to be addressed.

This paper presents the state of Russian forests by first describing their area, standing volume, age, composition, productivity and uses. Then, it describes major human and natural disturbances and associated forest losses, and portrays the use of non-timber forest products. Finally, it discusses the fate and future development of the Russian forests, and argues for the need for a new national forest policy, recognizing the challenges of its implementation.

### Forest areas

In 1993, the total area of the national forests in Russia, hereafter called the Forest Fund, covered 1,186 x $10^6$ hectares (ha). Boreal[1] forests cover most (87 %) of all Russia's stocked forest lands. Percentage of forest cover averages 45 % across the whole country and 57 % across the boreal zone. The Federal Forest Service of Russia and the State Committee of the Russian Federation on Environmental Protection manage respectively 94 % and 1.3 % of that area, while 3.8 % is managed by the Ministry of Agriculture and other agricultural organizations and the remaining 0.9 %, by other Ministries and public departments. Only 55 % of the forest area is of commercial value. More than half of Russian forests are growing on permafrost soils, especially in Siberia and the Far East, and are consequently of low productivity. Moreover, the economically accessible forests of the European North and those located along the Trans-Siberian main line have been severely depleted as a result of their overuse during the last hundred years. From 1966 to 1993, the total area of the Forest Fund changed only slightly, the main changes being caused by allocation of forest lands to industrial and agricultural development, and by applying more precise methods for measuring areas. Non-stocked forest area decreased considerably in 1993, mainly due to methodologicl changes in accounting: the State Forest Account created the category "natural open woodlands" (46.8 x $10^6$ ha), formerly included among non-stocked forest lands (see Table 1 for more detail).

[1] In Russia, the boreal forest is called the taiga.

**Forest areas per type of resource uses**
Russian forests are subdivided into three types according to the main goods and services they provide:

*Forests for ecosystem services* (the First group) include all forests providing for water regulation, environmental protection, and for important sanitary or health-improving functions. They also include those from other protection categories that are of scientific, historical, social, or cultural value. These forests cover 222 x $10^6$ ha, or 20 % of all State forest areas. Between 1993 and 1996, this type of forest expanded by more than 8 x $10^6$ ha, because of the creation of new protected areas (national parks, special purpose reserves, strict nature reserves, etc). This shows a change in the priorities of the national forest policy towards preserving forest ecosystem services.

*Forests for light extensive uses* (the Second group) include all forests within densely populated areas that provide both environmental protection and goods from limited exploitation. They also include forests with insufficient timber resources and in which strict exploitation rules apply. These forests cover 61 x $10^6$ ha, or 6 % of all State forest areas.

*Forests for intensive uses* (the Third group) include all forests of richly wooded regions that are mainly managed for exploitation. They are expected to sustainably provide the national demand for timber, while preserving some of their broader ecosystem services. These forests cover 828 x $10^6$ ha, or 75 % of all State forest areas.

**Figure 1. Percentage of total State forest area by forest type in Russia, 1966-96.**

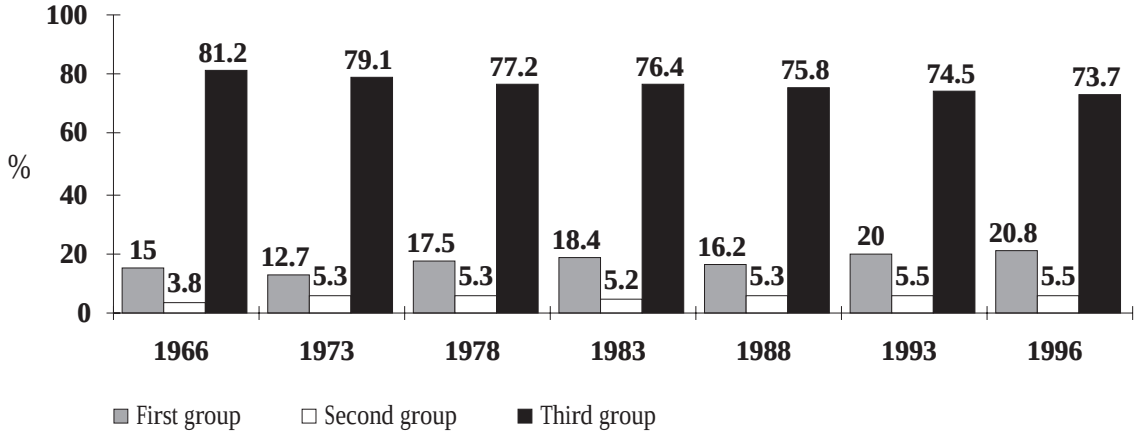


**Table 1.**
**Areas ( x $10^6$ ha) of major forest categories and total forest area in Russia, 1966-1993.**

| Forest categories | Years | | | | | |
|---|---|---|---|---|---|---|
| | 1966 | 1973 | 1978 | 1983 | 1988 | 1993 |
| Total Forest Fund | 1,161 | 1,165 | 1,170 | 1,172 | 1,179 | 1,187 |
| Forests under the jurisdiction of the State | 1,106 | 1,103 | 1,123 | 1,120 | 1,116 | 1,111 |
| Stocked forest lands | 658 | 679 | 694 | 709 | 713 | 706 |
| Forest plantations | 2.8 | 6.2 | 8.2 | 10.6 | 12.7 | 13.5 |
| Free-growing forest plantations | 3.1 | 3.5 | 3.7 | 3.9 | 3.8 | 3.8 |
| Non-stocked forest lands | 144 | 125 | 116 | 107 | 106 | 116 |
| Clear cut areas | 13.3 | 9.5 | 10.2 | 8.6 | 8.6 | 8.5 |
| Coniferous forests | 488 | 508 | 519 | 527 | 526 | 508 |
| Hardwood deciduous forests | 16.4 | 17.6 | 17.3 | 17.5 | 17.1 | 17.3 |
| Softwood deciduous forests | 108 | 108 | 110 | 111 | 110 | 113 |
| Siberian stone pine forests | 37.3 | 39.4 | 40.9 | 41.4 | 40.2 | 39.8 |
| Mature stands | 386 | 407 | 396 | 376 | 357 | 341 |
| Mature conifer stands | 331 | 324 | 319 | 308 | 291 | 267 |
| Conifer young growth[a] | 21.4 | 36.5 | 45.3 | 47.2 | 46.1 | 44.1 |
| Hardwood deciduous young growth[a] | 1.76 | 2.00 | 1.59 | 1.37 | 1.09 | 1.00 |
| Softwood deciduous young growth[a] | 22.7 | 24.6 | 24.9 | 25.5 | 23.5 | 24.4 |
| Non-forest lands | 301 | 296 | 309 | 301 | 292 | 286 |
| Arable lands | 26.6 | 21.6 | 21.5 | 22.2 | 20.5 | 20.1 |

[a] - Up to 20 years old

**Forest areas per composition types**

Larch, pine, spruce, fir, birch, and aspen, account for most of the timber species in the Forest Fund. They collectively cover 90 % of the total stocked area, which includes the forests allocated for long-term use. Other timber species, such as pear, chestnut, European and Manchurian walnut, and shrub species, such as the dwarf Siberian pine and a birch (*Betula fruticosa*), cover respectively about 0.2 % and 9.4 % of the total stocked area.

Larch is the most abundant timber species. It is mainly located in Siberia and the Far East, where it covers half of the conifer forest area, and accounts for 40 % of the total conifer standing volume. Second in abundance, pine stands are located mainly in the Asian part of Russia and cover 23 % of the conifer forest area. They account for a quarter of the standing volume of all conifer stands. Spruce and fir stands, located mainly in the European-Urals part of Russia, cover 17 % of the conifer forest area, and account for 21 % of the total conifer standing volume. Finally, Siberian stone pine stands, located mainly in Siberia and the Far East, cover 8 % of the conifer forest area and account for 13 % of the total conifer standing volume.

Stone birch stands, located in the Far East, cover half of the total deciduous *hardwood* [2] forest area. Stands of high stemmed oaks and beeches, the most valuable hardwood species, collectively cover a quarter of the total area of deciduous hardwood forests. The birch and aspen stands cover respectively 78 % and 17 % of the total area of deciduous *softwood* forests, and account respectively for 70 % and 22 % of the total standing volume of those forests.

**Forest areas per stand age classes**

Among conifer stands, mature and old stands account for about half of the coniferous forest area. Over the last 20 years, distribution of conifer stands among age groups have become more uniform. In 1993, young growth covered 17 % of the coniferous forest area, middle-aged 22 %, ripening 10 %, and mature and old forests 51 %. Over the past five years, the average age of conifer forests has decreased from 114 to 106 years. Among softwood deciduous stands, the age distribution appears more even, but mature stands generally dominate. Over the past five years, the average age of stands has increased slightly from 48 to 50 years. These changes in average age of stands reflect an increase in conifer harvesting and a decrease in deciduous tree harvesting.

The 1993 State Forest Account estimated the total standing volume of the main timber species to be 73 x $10^9$ $m^3$, with 42 x $10^9$ $m^3$ in mature and old stands. The economically accessible forests amounts to 62 % of the mature and old stands, with 20 x $10^9$ $m^3$ of coniferous timber, 5.4 x $10^9$ $m^3$ of which are located in the European-Urals part of Russia.

[2] Classification of deciduous trees in Russia is based on wood density. *Hardwood* species include oak, beech, and stone birch, while *softwood* species include aspen, other birches and alder.

**Table 2. Standing volume (x $10^9$ $m^3$) and annual increment (x $10^6$ $m^3$) of major forest account categories and total forest area in Russia, 1966-1993.**

| Forest categories | Years | | | | | |
|---|---|---|---|---|---|---|
| | 1966 | 1973 | 1978 | 1983 | 1988 | 1993 |
| Total Forest Fund (x $10^9$ $m^3$) | 73.5 | 74.0 | 74.7 | 75.4 | 74.6 | 73.0 |
| Conifer stands | 61.2 | 61.0 | 61.2 | 61.3 | 60.1 | 57.7 |
| Softwood deciduous stands | 9.6 | 10.1 | 10.7 | 11.0 | 11.3 | 12.1 |
| Mature stands | 52.8 | 52.5 | 51.5 | 49.1 | 46.3 | 41.6 |
| Mature conifer stands | 45.6 | 44.6 | 43.8 | 41.8 | 38.9 | 33.9 |
| Mature softwood stands | 5.8 | 6.0 | 6.1 | 5.8 | 5.8 | 6.3 |
| Gross annual increment (x $10^6$ $m^3$) | 792 | 821 | 855 | 874 | 844 | 830 |
| Mean annual increment per ha | 1.20 | 1.21 | 1.23 | 1.23 | 1.18 | 1.18 |

**Productivity and yield**

Russian forests produce timber of various specifications and grades, valuable for both domestic and world markets. From 1996 to 1997 there was a 19% decrease in merchantable wood harvested in the forest fund (102 x $10^6$ $m^3$ and 83 x $10^6$ $m^3$ respectively). End-use products include round-wood, soft-wood lumber, pulp and paper products (Table 3). Russia has annual allowable cut (AAC) targets to ensure a sustainable harvest (Fig. 2).

The AAC has decreased since 1990 as the area excluded from commercial exploitation has expanded. The decrease in the actual harvested volume may have negative impacts on the forest resulting from a modification of the age structure, deadwood (fuel) accumulation, and, consequently, increased risk of fires. These impacts could be offset, to a certain extent, by sylvicultural practices such as precommercial thinning. However, in recent years, the area of precommercial thinning has decreased (Fig. 3).

**Table 3. Wood-end products of merchantable wood harvested in Russia ($m^3$ and metric tons)**

| | 1997 | |
|---|---|---|
| **End-use product** | **Produced** | **Exported** |
| Round-wood | 84 x $10^6$ $m^3$ | 18.7 x $10^6$ $m^3$ |
| Sawnwood | 23 x $10^6$ $m^3$ | 5.8 x $10^6$ $m^3$ |
| Pulp | 3.9 x $10^6$ tons | 0.98 x $10^6$ tons |
| Paper and paper board | 3.3 x $10^6$ tons | 1.4 x $10^6$ tons |

**Figure 2. Allowable annual cut compared to actual timber volume harvested in Russian forests, 1965-96**

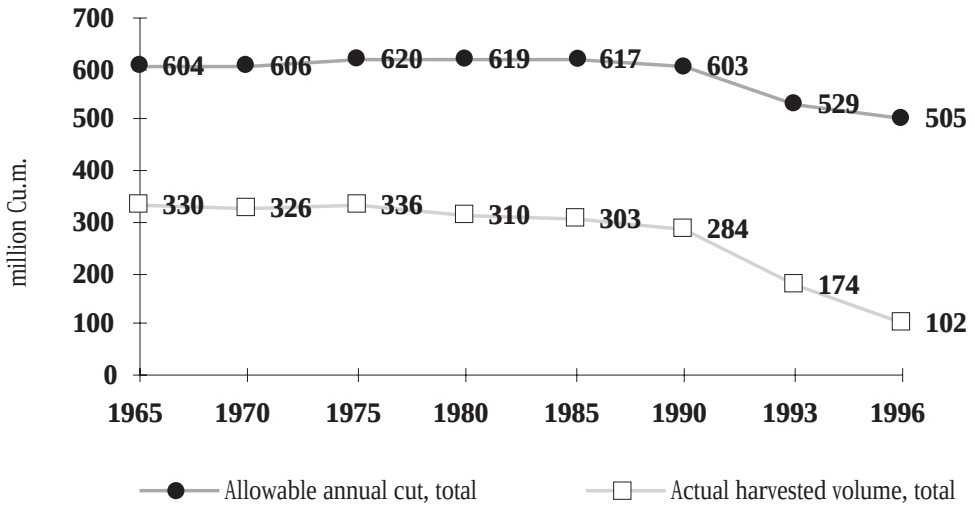
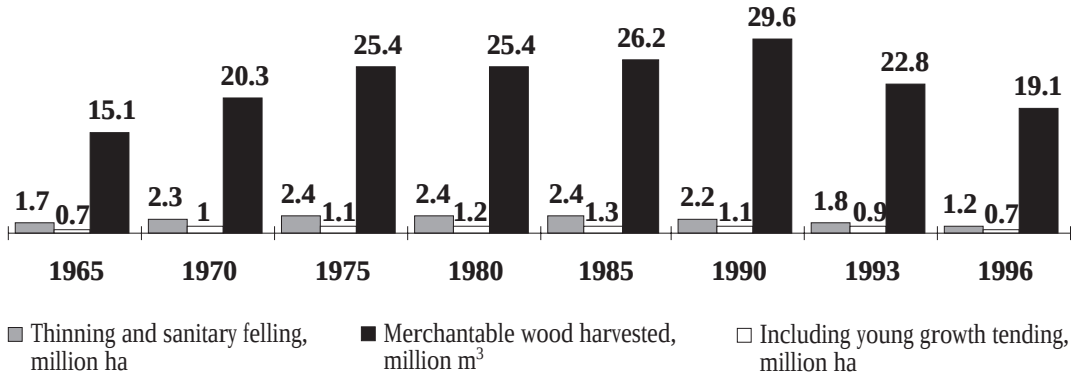



**Figure 3. Trend in the area of precommercial thinning vs the volume of merchantable wood harvested in Russian forests, 1965-1996**



Both standing volume and final yield show important variation between the European-Urals and Asian regions of Russia. Although the European-Urals region contains only 19 % of the total volume of mature and old stands available in Russia, 57 % of the wood harvested in the country comes from this region.Over the past 25 years, the quantity of the wood harvested in the Asian region increased by 10 %, but has been decreasing over the last decade because of a decrease in governmental subsidies to wood transport.

**Reforestation and protected forests**

The Forest Fund is mostly made up of natural forests; however, since 1965, plantations have continuously expanded and presently account for a quarter (17.3 x 106 ha) of all stocked forest lands (Table 1). From 1988 to 1993, 37 % of reforested lands were planted or sowed. The governmental reforestation program has persisted despite a major economic recession and scarce governmental financial support to activities.

About 3 % of the Forest Fund area is presently protected. Protected forests are part of the natural-reserve fund, a network of areas under particular State protection. They include forests of various protection categories, such as national and natural parks, strict nature reserves, especially valuable forest tracts, national monuments, forests of scientific or historical value, and genetic reserves (for the production of quality tree seeds).

In 1983, the Russian Federation began to establish national parks. The Federal Forest Service of Russia now manages 30 national parks covering a total area of more than 6.5 x 106 ha. This network of protected areas plays different roles, including the protection of natural and cultural heritage, tourism, and research opportunities for the sustainable development of forests. The State Committee for Environmental Protection also manages protected areas, such as the biosphere reserves. In 1997, the Federal Government adopted a legislation for mapping protected areas, thus allowing the collection of various data on protected areas, regardless of their jurisdictions.

**Forest losses through natural and human disturbances**

*Fires*

Each year forest fires affect on average $1 \times 10^6$ ha, with yearly variations depending on climatic conditions. While more than 25,000 forest fires were recorded in 1995, which is 33 % more than the number recorded in 1994, the total area exposed to fire in 1995 was 1.5 times less than in 1994. The fire season of 1996 was particularly disastrous, with about $2 \times 10^6$ ha of forest lands burned (Table 4). Forest lands are classified according to fire occurrence : 35 % are of low fire occurrence (classes I and II), 31% of moderate fire occurrence (class III), and 34 % of high to extremely high fire occurrence (classes IV and V).

Ground fires occur most frequently and account for 90 % of the total burned area. Human activities are considered to be the main causes of more than 80 % of all fires recorded in Russia and up to 100% in its European-Urals region. Climatic factors remain a major precondition for the starting and spreading of forest fires.

**Table 4. Number of forest fires and total burned area (x $10^3$ ha) in Russia, 1993-1997**

| | Years | | | | |
|---|---|---|---|---|---|
| | 1993 | 1994 | 1995 | 1996 | 1997 |
| Number of fires | 18 428 | 20 287 | 25 951 | 32 833 | 31 300 |
| Burned area | 748.6 | 536.8 | 360.1 | 1853.5 | 726.7 |

*Radioactive contamination*

Complete data on radioactive contamination of forest lands were obtained for the first time in 1995. Expert assessments concluded that overall Russia, the area contaminated with long-lived radionuclides may exceed 3.0 x $10^6$ ha. Despite the fact that areas contaminated with radionuclides represent no more than 0.5 % of the stocked forest lands, their existence is perceived as a major social and political problem.

Twenty three out of eighty nine regions of Russia have contaminated forests. As a result of the Chernobyl accident, 958,700 ha of Russian forests were exposed to radioactive contamination, mainly in the Bryansk, Kaluga, Orel, Tula and Leningrad regions. In the Urals area, the Chernobyl accident together with the defense industries contaminated 647,000 ha of forests in the Chelyabinsk, Sverdlovsk and Kurgan regions. Moreover, nuclear tests conducted before the ban on surface and atmospheric nuclear explosions dispersed radionuclides over 271,500 ha in the Altai Territory and the Republic of Altai in Siberia.

*Pests and diseases*

Forest damage and dieback caused by pests and diseases also contribute to the reduction in the productivity of forests. However, they usually act on a local scale and annually affect no more than 0.03 % of the stocked forest area in Russia. In 1995 for instance, pests and diseases contributed to the loss of 162 000 ha of forests.

Still, some years forest dieback caused by outbreaks of pests and diseases affects larger areas. Since 1993 infestation centers of the Siberian moth insect (*Dendrolimus sibiricus*) has increased. The 1996 forest health survey reports a sharp increase in its populations, total affected area, and number of infestation centers. Available forecasts predict that if no adequate controls are applied, hundreds of thousands of hectares of conifer stands may die out in the next few years. The Federal Forest Service of Russia has substantially increased the allocations for the control of this infestation in the last two years, with the financial participation of the Forest Service of the United States Department of Agriculture.

**Table 5. Annual commercial yield of non-timber forest products (in $10^6$ tons)**

| Non-Timber Forest Product | Yield |
|---|---|
| Berries (cranberries, cloudberries, boug bilberries) | 4 x $10^6$ tons |
| Pine nuts | 1 x $10^6$ |
| Mushrooms | 1.7 x $10^6$ |

**Non-timber forest products**

Non-timber forest products and hunting contribute to the economy and welfare of many local forest-dependent communities. Non-timber forest products traditionally used are mostly tannins and plant products such as berries, dyes, flour produced from twigs of coniferous trees used as an additional forage for cattle, pine nuts, mushrooms, medicinal plants in demand both in Russia and abroad, such as ginseng, *Eleutherococcus*, and *Schizandra* and raw materials used in handicraft. Recently, handicrafts have broadened their market, particularly those produced by skilled artists, some of which are being exported.

Present uses of non-timber forest products are symptomatic of the economic and social situation in Russia rather than of their full potential. A study showed that only 30 % to 40 % of the economically accessible yield of these products is actually harvested (Table 5). In some regions, especially in Siberia, the economic value of forest food products exceeds that of wood. Therefore, excluding them from the final yield calculation, during many years, and allocating these forests for non-timber goods and services, is an urgent task not only for Russian forestry authorities but for all governmental organizations. This task will require a revision of the whole forest policy and forest use classification.

**Fate and future development of the Forest Fund**

For the next 50 years the present distribution of forests among land categories is not expected to change substantially. Mature and old stands will account for 45 % of the stocked forest area, with 48 % of that covered by conifer stands. Areas of mature and old stands are expected to decrease, compared with those of 1993, by no more than 2 %. Over all of Russia, the age of stands will become more evenly distributed.

Young conifer forests are mostly located in Siberia and the Far East. By 2005, the expansion in the area of these stands is not expected to exceed that of European Russia, where forests are more intensively managed. The areas covered with young conifers is expected to increase by up to 50 % throughout Russia where there is natural regeneration, and even more so in European Russia because of forest plantations. In some regions of the Central Economic Area, the area covered by young conifers is expected to increase because of precommercial thinning in the young deciduous-conifer stands, classified as conifer stands. In those regions however, the area covered by young conifers will not increase as much as elsewhere because of a continuous decline in harvested volumes and an almost complete lack of lands suitable for reforestation.

Natural regeneration is of great importance in Siberia, the Far East, as well as in the well-forested areas of the European-Urals part of Russia. Because of their natural characteristics, forests in the Krasnoyarsk Territory are expected to successfully regenerate in 90 % of the harvested areas in the Angara-Yenisei taiga (boreal) logging region, and in 60 % of the harvested areas in the South mountain-taiga (boreal) logging region. In these regions, natural regeneration of economically valuable species is assumed to occur if harvested according to harvesting rules and methods.

**The need for a new national forest policy**

As the owner of the largest share of the world's forests, Russia should secure its present and future interests regarding the use and renewal of its forest resources. Therefore, the country needs an efficient forest policy that will take into account the global trends in the world trade of forest products. One of the problems in Russia is

that people and the government still perceive forests as an unlimited and free gift of nature. Only a change in this attitude will allow for social development. Efforts should be directed towards the enhancement of forest functions that provide socio-economic and ecological benefits, especially in poorly forested regions and in regions with inaccessible forests or with forests located on permafrost, such as those located in the taiga, the zone north of the boreal forest and south of the tundra.

The Federal Forest Service, a 200 year-old institution, is now facing drastic social and political reforms that have impeded the development of the national forest sector. The country's efficiency in forest use is much less than that of developed countries. Some 30,000 logging and woodworking companies account for 5.6 % of Russia's total industrial production. Concerted actions are needed for all components of the forest sector to be profitable.

Policy-making for improved forest management is a top priority for the Federal Forest Service. The development of forest programs with adequate financial support must be based on diversified, coordinated approaches that include the consultation of all interested parties, such as land users, harvesters and gatherers of timber and non-timber forest resources.

**Principles and elements of a new national forest policy**

The history of forest management in Russia and elsewhere has shown that forest management based exclusively on the maximization of forest income, without maintaining environmental and non-market forest benefits, has negative consequences, such as radical changes in forest landscapes and species composition, an overall impoverishment of the natural environment, a reduction of biodiversity, and a sharp decline in the stability of forest ecosystems.

It is important to improve the forest management system so as to conciliate interests and combine all useful forest functions at different levels. This may be achieved by the development of long-term forest programs directed at making use of market mechanisms. These mechanisms must, however, meet governmental regulations of forest management, using economic incentives and sanctions.

Protecting forest biodiversity and preventing dramatic global change by means of sound use of the Forest Fund lands are some of the goals of a sustainable development of the Russian forest sector. Too often, industrial development damages forest ecosystems. To prevent negative impacts of industry, the Russian government revised the annual allowable cut (AAC) according to recommendations from experts. The AAC has been determined for most logging companies.

At the regional level, data on forests are being used to sustainably develop the sector and to equitably share it between different users. These data can be used for the settlement of disputes between economic interests and the general population. The use of criteria and indicators for sustainable forest management may be another tool to help in the sustainable development of the forest sector, as well as a national system for the certification of the origin of forest products.

According to the "National Strategy of the Russian Federation for Environmental Protection and Sustainable Development", the State has the responsibility to protect forests from major disturbances and to ensure their proper regeneration. Finally, forests should not only be perceived as providers of resources but also as providing various ecosystem services.

**Implementation of the new forest policy**

Implementing and improving the Forest Code of the Russian Federation consists of harmonizing federal plans and financial priorities with 1) the actions to be taken by forest administrations, 2) the decisions of the international community regarding the Earth's forest cover, and 3) the political agenda of the Russian Government. The ongoing reforms are substantially changing the public's attitudes towards forestry. As the central executive body in forestry, the Federal Forest Service of Russia is responsible for setting norms and providing organizational and economic conditions for sustainable forest management. Its major task is to develop and consistently implement an efficient forest policy, including state-of-the-art management methods within the Forest Fund structure.

In implementing this new forest policy, the Federal Forest Service will : 1) consult the population, including minorities, before taking any forest-management decisions, 2) stimulate active cooperation among local people and the forest service administration, and 3) conciliate diverging interests. To attain all of their objectives, the forest management authorities will need to develop a comprehensive database on forests. This will include stand conditions, programs of forestry practices aimed at enhancing the potential of sustainable forest use, and assessments of the impacts of forest practices on the economic output. Data will come from organizations and institutions specialized in research, planning and forest management. Social data will also need to be included in the database.

The new organizational structure of the forest service will draw more often upon institutions and businesses of the forest sector for research, design, protection and forest management planning. It will be responsible for the continuous acquisition and analysis of data on markets of forest products, and data on regional and national forests, including data on technology and costs for the extraction and transformation of forest resources.

In summary, taking into account various constraints, measures brought by the new forest policy should aim at:

- protecting forests from major disturbances and ensuring their regeneration;
- protecting biodiversity in the Forest Fund;
- promoting scientifically sound, sustainable and multi-purpose forest uses;
- improving ecological and resource potentials of the Forest Fund;
- satisfying the social needs for forest resources;
- increasing the profitability of forests;
- improving forestry and forest management through scientific and technological achievements;
- raising the social and economic status of foresters;
- promoting continuous education in forest ecology and forestry;
- consulting the population for planning forest uses and reforestation.

*Protection and restoration of forests*
Specially protected natural areas play a major role in the sustainable development of forests in Russia. A significant part of these protected areas (about 70 % of their total area) is located within the Forest Fund lands, under the jurisdiction of the Federal Forest Service. Subsequent development of specially protected natural areas will likely occur mainly on the Forest Fund lands.
The ecological restoration of lands should become one of the priorities of national forest policy, and should be directed first to lands exposed to a high risk of degradation as a result of forest clearance caused by human activities. Some of these lands are located in regions of extreme climatic and soil conditions.

*Share of responsibilities among administrative levels and other organizations*
The forest administrations of the Russian Federation will need to consider biodiversity as a value in their forest plans. They could use recommendations from international organizations relating to biological conservation. Forest administrations of the Russian Federation will also be responsible for regional programs aimed at increasing the number and coverage of protected forest areas. Local populations should be allowed to sustainably use resources from these areas and representatives of the local nature conservation authorities should be involved in the process.
The conservation of biodiversity in the Forest Fund will demand that forest management gradually evolves from a forest stand to an ecosystem based approach and will require improved ecological norms for resource harvesting.
Improving the sustainability of the forest sector will require that regional forest administrations promote new attitudes and provide professional training to their staff in basic forest administrations (*leskhozes*).
Implementating the Forest Code (of the new forest policy) will build the foundation for sustainable forest management. The policy of the Federal Forest Service of Russia assumes that all socio-economic and ecological processes in Russia should develop, in the next few years, in compliance with the "Concept of the Russian Federation's Transition to Sustainable Development".

**IUCN**
**The World Conservation Union**

Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organizations in a unique world partnership: over 900 members in all, spread across some 138 countries.

As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. A central secretariat coordinates the IUCN Programme and serves the Union membership, representing their views on the world stage and providing them with the strategies, services, scientific knowledge and technical support they need to achieve their goals. Through its six Commissions, IUCN draws together over 8000 expert volunteers in project teams and action groups, focusing in particular on species and biodiversity conservation and the management of habitats and natural resources. The Union has helped many countries to prepare National Conservation Strategies, and demonstrates the application of its knowledge through the field projects it supervises. Operations are increasingly decentralized and are carried forward by an expanding network of regional and country offices, located principally in developing countries.

The World Conservation Union builds on the strengths of its members, networks and partners to enhance their capacity and to support global alliances to safeguard natural resources at local, regional and global levels.

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