

Forest policy in modern Russia

Boreal forests for people and biodiversity (Finnish Forest Research Institute, European Forest Institute, Future Forests Research Programme, University of Eastern Finland, Swedish Agricultural University, Y. Gerasimov, R. Jonsson, L. Hetemäki, P. Katila, O. Krankina, S. Kellomäki, T. Koskela, T. Lundmark, J. Moen, Ch. Messier, K. Mielikäinen, A. Naskali, A. Nordin, O. Saastamoinen, H. Vanhanen)

Conservation of especially valuable forests

“Land of the Leopard” threatened by forest fires (A. Fereferov, Russian office of WWF)

Business and sustainable forest exploitation

Bioenergy: FSC and new market opportunities (L. Mate, WWF International)

Forest and climate

Managing forest carbon balance in Russia: past, present and future (D. Zamolodchikov, Moscow State University, V. Grabovsky, Ecology and Forest Productivity centre of RAS, V. Kurts, Pacific Forestry Centre, Canadian Forest Service)

Professional education

Introduction of the subject “Sustainable forest management” in Primorskaya State Academy of Agriculture: results and perspectives (A. Komin, V. Usov, Primorskaya State Academy of Agriculture)

News from the European neighbourhood and partnership instrument east countries forest law enforcement and governance II Program

News from IUFRO

New publications

Sustainable forest management: manual for university students

Problem book for the manual “Sustainable forest management”

Short guidance though new requirements of EU Timber Regulation for the suppliers of forest products

Boreal forests for people and biodiversity

The boreal forests, mainly dominated by conifer species, extend in a band from the Russian Far East across Siberia and Scandinavia to Northern Canada and Alaska, covering an estimated 1.7 billion hectares and over one-quarter of the world's forested area. These forests constitute approximately 45% of the world's stock of growing timber. Currently, the share of the forest sector in the Gross Domestic Product (GDP) of each boreal nation has decreased but even with this small share in the national accounts (1-4%), the boreal forests will continue to provide renewable wood and non-wood products and ecosystem services, such as carbon sequestration and storage in forest soils, climate mitigation, various cultural services and sustaining biodiversity. As national and international policies and public attitude now place increasing emphasis on green economy and biodiversity conservation, boreal forests deserve more attention and comprehensive investigation as a source of various renewable resources and as protection zones.

The boreal region contains more than 35% of the global terrestrial carbon stocks. With proper management the boreal forests can play an important role in mitigating climate change through increased carbon storage. Wood can replace non-renewable fossil energy sources directly through combustion for energy. Long-term carbon storage in wood-based products, combined with novel forest management that promotes carbon sequestration in forests, is often seen as the most effective way for the forestry sector to contribute to climate change mitigation.

The future of the boreal forests will depend on the development of a multi-cluster strategy that includes currently competing industries and new ones that will develop based on new products and forest ecosystem services. Boreal forests can continue to be used for paper and pulp production and for diverse wood products. At the same time these forests can provide income and employment in forest-based services. Non-wood uses of forests, such as for recreation, health, wildlife, protection of groundwater, landscape and cultural values, are more important than wood in some parts of the boreal region, and their importance will continue to grow.

New, perhaps more intense forestry activities in some locations and possibly increased use of wood – for energy – and non-wood forest products (NWFPs) could provide more jobs, if and when the opportunities for the new openings are fully seized. Potential new markets are arising in forest-based services, in health, in various activities related to recreation and tourism, in nature and landscape services, in maintenance and in value trading – maybe in carbon trade. New skills are needed in forest-related research, consulting and educational services, and in developing incentives for producing and maintaining the many non-wood products and services of the forests. Nature tourism is the fastest growing sector in the thriving global tourism industry and the boreal forests are increasingly being seen as an exotic destination, possibly furnished with local cultures, both for local and foreign visitors.

Halting the loss of biodiversity and degradation of ecosystem services requires a re-evaluation of the forestry practices used. New management approaches are evolving aiming at maintaining as far as possible the diversity of forest structure, the number of species, connectivity and function to facilitate the forest to reorganize itself to better adapt to change at both stand and landscape levels. There is an urgent need for novel adaptive forests strategies, which could respond rapidly

to risks and uncertainties arising from changes in economies, society and the environment. The strategies would also enable identifying the best market compromises among wood harvesting, biomass capture, ecosystem functions and ecological reserves. With wise management, the extensive boreal biome can meet multiple demands, such as wood production, maintenance of biodiversity and other ecosystem services, and various social demands.

“Land of the Leopard” threatened by forest fires (A. Fereferov, Russian office of WWF)

Since the end of XIX century south west of the Primoriye territory suffers greatly from forest fires. Constant fires caused significant changes in the landscape of the territory and accelerated the processes of soil degradation. The trees damaged by the fire are left exposed to all sorts of diseases and vermin which increases the losses of forest stand. Regular destruction of understory trees forms a park forest with no bushes or young trees. Consequently hoofed mammals starve because of food reserve degradation which also damages the food reserve of big cats. Observation results show that both tiger and leopard avoid the territories that are regularly damaged by forest fires.

People continue to be the main cause of forest fires on this territory. Especially in the summer locals and tourists significantly increase the danger of forest fire. Moreover the majority of land users are not burdened with any legal obligations in the sphere of the protection of the land entrusted to them from the fire.

In order to deal with this situation in 2012 already a wildlife preserve “Leopardovy” was reorganized into a national park “Land of the Leopard” which covers 400 000 ha of protected land. Now to prevent forest fires and to fight with them the departments of WWF and Ministry of emergency situations use different instruments. Monitoring is the best way to prevent forest fires, the information for it comes from video cameras and satellite images. It is necessary to build more fire lines and a lot of existing ones need reparation. Another important field is the education of locals and tourists about fire safety in the forest. Though WWF contributes greatly to the solution of existing problems, federal and regional authorities should recognize their responsibility and pay more attention to the fire prevention in “the Land of Leopard”.

Bioenergy: FSC and new market opportunities (L. Mate, WWF International)

Searching for new renewable energy sources a lot of countries turned towards timber as a source of bioenergy. Nevertheless significant forest exploitation for the needs of energy can cause deforestation, biodiversity and soil degradation as well as habitat losses.

The way in which bioenergy will affect the forest sector depends greatly on the consumers' attitude and on the development of the market for FSC certified products. WWF is interested in the development of effective certification schemes for energy companies that use wood biofuels, so that they can realize their aspirations in the conduct of responsible forest management and reducing emissions of greenhouse gases.

It is important to take into account that bioenergy is not always, by definition, better than fossil fuels in terms of mitigation. The impact of bioenergy on the climate is highly dependent on where and how biomass was grown, processed and used for bioenergy production. Thus, in addition to certain environmental and social requirements the company that produces or uses wood pellets, must also meet the requirements of the effectiveness of reducing greenhouse gas emissions, which means they need a tool to assess the greenhouse gas emissions during the whole cycle of production and consumption of biofuels. There is a need to develop a mechanism that could be used and recognized.. According to WWF, FSC certification could play a leading role in the development of such calculator.

However, from the FSC it will require some effort and plasticity. FSC can develop its own calculator of greenhouse gases or it can start developing such a mechanism in conjunction with other recognized forest certification institutions. As an example FSC Certification Roundtable for sustainable biofuels (RSB) decided to join forces for the certification of liquid biofuels from wood pulp (eg, biodiesel, the production of which starts UPM). This coalition creates new opportunities for interested companies to certify forest management in accordance with FSC requirements. The procedures and requirements of RSB comply with EU legislation on biofuels, which means that producers meet the requirements of RSB, secure their access to the market. Unfortunately, a similar system is not designed for solid biofuels from wood pulp, such as wood pellets and wood chips, which are used for the production of heat and electricity. Today the development of such a system should be a priority.

With the changes that are going through the forest sector, FSC sees new opportunities and new challenges. FSC should provide acceptable cost solutions to stakeholders and consumers, while maintaining the status of a recognized forest certification scheme. With regard to liquid biofuels major forest certification schemes have shown some passivity and there is a fierce competition in this market now. WWF supports the efforts of FSC on providing leadership in new markets of biofuel.

Managing forest carbon balance in Russia: past, present and future (D. Zamolodchikov, Moscow State University, V. Grabovsky, Ecology and Forest Productivity centre of RAS, V. Kurts, Pacific Forestry Centre, Canadian Forest Service)

It is widely believed that forests effectively absorb CO₂ from the atmosphere, but a lot of people forget that because of fires and excessive forest exploitation forests can also emit a great volume of it. More than 10% of anthropogenic emissions of CO₂ are represented by the emissions from deforestation in tropical countries. Only sustainable forest management (especially regulation of forest exploitation and fire protection) allows keeping the absorption of CO₂ on the same level or even to increase it.

Backcasting study showed the changes in forest carbon balance in Russia from 1988 to 2009. Mainly in this study were analyzed carbon stock in different groups of forests and the areas exposed to forest destruction from cutting, forest fires or other factors; these areas give the information about the amount of CO₂ emitted in the atmosphere.

During the study period the volume of carbon absorption was pretty stable and averaged 381±48 millions of tons of carbon per year, while forest carbon losses showed more dynamics and a significant reduction from 273±26 millions of tons of carbon per year in 1988 to 176±18 millions of tons of carbon per year in 2000. The main reason for this change apparently is the reduction of timber harvesting area. Overall clear cutting accounted for the 41% of carbon emissions while forest fires accounted for 59%.

In the study were also investigated changes in carbon balance between the Russian regions. The central and southern regions showed better results in the sense of carbon absorption because there are a lot of young intensively growing soft-wooded broadleaved trees that absorb carbon better than conifers. Carbon losses from forest exploitation are the highest in western Siberia and in European part of Urals. At the same time carbon losses from forest fires are maximum in southern Siberia and Far East mainly because of the climatic conditions, anthropogenic influence and unfavourable conditions for fire protection and monitoring.

The study shows that the main reason for the increasing carbon balance was the reduction in forest felling in Russia but eventually the importance of forest industry will grow so four different growth scenarios were developed: zero growth, short-term moderate growth, long-term moderate growth and fast growth. But anyway cutting growth means the decrease of forest carbon stock. Overall the study shows that the main goal now is to promote activities that will keep forest carbon stock on the same level, which means to promote fire safety in forests and most of all in the southern Siberia and Far East.

Introduction of the discipline “Sustainable forest management” in Primorskaya State Academy of Agriculture: results and perspectives (A. Komin, V. Usov, Primorskaya State Academy of Agriculture)

In 2009 WWF prepared a manual “sustainable forest management” which was recommended to the students who major in forestry. Together with this manual WWF prepared the programme for the discipline “Sustainable forest management”. This discipline is now being introduced in 19 different universities, and one of them is Primorskaya State Academy of Agriculture.

The programme consists of 72 hours: 18 of them are assigned for lectures, 28 – for practical activities and 28 for individual student work. The discipline covers different topics such as: ecological foundations for sustainable forestry, economic foundations of sustainable forestry, social aspects of sustainable forest management and forest certification in Russia and in the world. Practical activities include practical problem solving, field classes for the description of key biotopes or key elements of timber stand on the territories assigned for cutting, calculation of felling volume according to the standards of commercial cutting, role plays for the solution of different social conflicts and elaboration of a plan for audit.

Practical classes proved to be more interesting and more effective for the students and in the future it is advisable to introduce a student field practice for at least 18 hours. The forest which in 2012 was handed over to the Primorskaya State Academy of Agriculture for its unlimited use now is a perfect platform for such practical classes. Most of the student research papers in the academy are based on the information found in this forest. In 2010 WWF and the company “Transparent World” marked out 10 000 ha of high conservation value forests. Eventually this forest can become a model area for the demonstration of methods of sustainable forestry.

The discipline “Sustainable forest management” is essential for the students who major in forestry so the positive experience of Primorskaya State Academy of Agriculture should be used by the universities in order to form highly qualified professionals.