



Russia: International Fire Management Week 2012

Rationale

Sustainable management and protection of forest resources are key elements of the forest policy of the Russian Federation. For more than a century the prevention and control of all forest fires has been primary task of agencies responsible for forest management and fire protection. However, scientific evidence reveals that some forest types in the different ecoregions of Russia's territory have co-evolved with natural fires (lightning fires) and even human-set fires. The effects of fire disturbances include removal of dead and live accumulated biomass, recycling of nutrients, stand thinning and regeneration of forest stands. Fire disturbances are creating valuable wildlife habitats. Recurrent surface fires of low intensity remove combustible materials and result in an overall reduction of the risk of severe and large destructive fires, which are considered threat to sustainable forest management and utilization, and may lead to large, uncontrollable outbreaks of pests and diseases.

With the presence of natural fires over millennia some forest types can be classified as fire-tolerant, fire-adapted or even fire dependent. Thus, a complete exclusion of fire from some forest ecosystems is neither ecologically desirable, nor economically feasible. Considering the increasing importance of managing long-term stable forest cover, forest productivity and carbon sequestration, a future forest and fire management policy of Russia shall include the integration of planned and prescribed natural and accidental wildfires, as well as prescribed management fires.

Wildfire prescriptions need to be determined for each forest type, allowing wildfires to burn if their effects are expected to be beneficial to the forest ecosystem short- to long-term.

The application of prescribed management fires (prescribed burning) shall reduce hazardous combustible materials within forest stands (under canopy burning); burning residuals (slash) of forests destroyed by pests, diseases and wind; or induce forest regeneration and secure ecological dynamics of natural protected forests. Currently there are no regulations on prescribed natural and prescribed fire management operations under canopy of forests in Russia.

The International Fire Management Week

Between 2 and 8 September 2012 the „International Fire Management Week“ was organized under the joint umbrella of the Federal Forestry Agency ROSLEZKHOZ of Russia and the Global Fire Monitoring Center (GFMC), both cooperating partners under the bilateral Russian-German Agreement on Cooperation in Sustainable Forest Management, and under the framework of the UN International Strategy for Disaster Reduction (UNISDR) and the UN Economic Commission for Europe (UNECE).

During this event the latest and up-to-date state of the art of fire ecology and advanced fire management methods on the use of prescribed fire for wildfire hazard reduction in temperate-boreal Eurasia were presented and discussed between scientists, practitioners and policy makers at national level of the Russian Federation, and with representatives of the administrations of Krasnoyarsk Krai.

Participating and consulted institutions included:

- Federal Forestry Agency *Roslezkhoz*
- Global Fire Monitoring Center (GFMC)
- Aerial Forest Fire Center (*Avialesookhrana*)
- Forest Inventory and Planning Enterprise *Roslesinforg*
- All Russian Institute of Continuous Education in Forestry (VIPKLH)
- Vice Governor of Krasnoyarsk Krai
- Minister of Natural Resources and Forest Complex of Krasnoyarsk Krai

- Sukachev Institute of Forest SB RAS
- Krasnoyarsk Krai Forestry Agency
- Krasnoyarsk Forest Fire Center
- National University of Life and Environmental Sciences of Ukraine
- National University of Mongolia
- National Emergency Agency of Mongolia
- Sankt Peterburg Forestry Research Institute (SPbNIILH)
- Krasnoyarsk Forest Health Center (Regional office of *Roslesozaschita*)
- Krasnoyarsk Center of EMERCOM of Russia

In a seminar basic statements and papers were presented on the role of fire in ecosystems and the implications on fire management.

At a field demonstration on prescribed burning under canopy of a pine stand nearby Krasnoyarsk media representatives were briefed about the objectives of prescribed sub-canopy burning in pine forests. Attendees of this demonstration witnessed for the first time that a prescribed low-intensity surface fire can be set in a forest to safely reduce surface fuels without damaging the stand.

An expedition to the site of Bor Forest Island Fire Experiment of 1993, located between the settlements Yartsevo and Bor, demonstrated the concept of a long-term research project of the consequences of a severe, high-intensity fire. The experiment, scheduled for the 200-years research period 1992-2192, investigates the consequences of a high-intensity forest fire, followed by secondary pests, on the regeneration of a natural forest.

A Round Table on the 4th day of the International Fire Management Week evaluated the seminar, the prescribed burning experiment and the visit of the Bor Forest Island Fire Experiment.

Recommendations by the Participants of the 2012 International Fire Management Week:

The Krasnoyarsk 10-Point Programme on the Future of Fire Management in Russia

The Round Table concluded that there is an urgent need to revise the policy and practice of fire management in the Russian Federation, and agreed upon the following recommendations:

1. Legal and other normative documents that are regulating forest management and forest fire protection need to be complemented concerning the use of prescribed fires and prophylactic burning under forest canopy.
2. Methodological guidelines for prescribed burning under forest canopy need to be developed at federal level.
3. Educational programs for the training of forest firefighters and fire management specialists at different educational levels need to be developed and approved at Federal level.
4. Programs of advanced continuous professional education for foresters on prescribed burning need to be developed and approved.
5. Create the occupation categories "Forest Fire Fighter" and Fire Crew Leader in the tariff-classification reference book.
6. Further scientific research concerning prescribed fires needs to be supported at Federal level.
7. The Order of the Federal Forestry Agency № 174 of 27 April 2012 "Approval of the normative for forest fire management plans" need to be changed in the section on planning the prophylactic burnings at forest district unit level and to determine the normatives for fire prevention operation plans in the 1-km zone around settlements.
8. Concepts for the use of fire on agricultural and other non-forested lands of the Russian Federation need to be developed.
9. A new system of statistical accounting and classification of types of forest and other vegetation fires and their consequences needs to be developed, and appropriate changes to be made in the GOST № 17.6.1.01-83 (approved by Decree of the State Committee on Standards, 19 December 1983).
10. International expertise in the field of fire management needs to be used, including the system of statistical accounting and classification of vegetation fires proposed by GFMC.

Further Technical Information on the Fire Management Week 2012

On a website of the UNISDR Regional Eurasia Wildland Fire Network additional information and documentation is provided:¹

- International Fire Management Week Agenda
- Media reports
- Two film documentations

Photo Gallery



Panel of Round Table organizers representing academia, public administrations and the GFMC



The Round Table was attended by fire management practitioners, scientists and decision makers



Yegor Kisilyakhov explaining methodologies of dendrochronological fire history research



A typical cross section of a *Pinus sylvestris* stem showing multiple scars of historic fires

¹ <http://www.fire.uni-freiburg.de/GlobalNetworks/BalticRegion/KrasnoyarskFireManagementWeek-2012.html>



The first ever public demonstration of prescribed underburning in a pine forest stand in Russia

Representatives of the media conveyed numerous online and TV reports about prescribed burning



Bor Forest Island immediately after the large fire experiment in July 1993



Bor Forest Island 19 years later: In July 2012 the regeneration of the island is making progress



Maintenance of old and establishment of new research plots on Bor Forest Island



Stand regeneration between the trees killed by and downed after the fire of 1993



The remote location of Bor Forest Island is accessible only by helicopter



The fire management team of Krasnoyarsk Krai: Firefighters and fire researchers cooperating