



**Global Fire  
Monitoring Center  
(GFMC)**



**Regional Eastern  
European Fire  
Monitoring Center**



**National University of  
Life and Environmental  
Sciences of Ukraine**



**Education and  
Research Institute of  
Forestry, Park and  
Gardening**



**Separated subdivision  
of NULES of Ukraine  
"Boyarka Forestry  
Research Station"**

## **PROGRAM**

International Seminar and Consultations

**"CURRENT TRENDS AND CHALLENGES IN FIRE MANAGEMENT IN THE EASTERN  
EUROPEAN REGION"**

and

**Establishment of long-term Fire Experiment on  
"Assessment of Impacts of a Surface Fire on Forest Ecosystem Health and Dynamics"**

Boyarska Forest Research Station

Boyarka city, Ukraine

10 April 2014

### **Organizers**

National University of Life and Environmental Sciences of Ukraine, Kyiv  
Global Fire Monitoring Center, Freiburg, Germany  
Institute of Forestry and Landscape-Park Management  
Regional Eastern European Fire Monitoring Center, Kyiv,  
Boyarska Forest Research Station

## **Rationale**

### **1. The Fire Situation in Eastern Europe**

The eastern region of temperate-boreal Eurasia (Eastern Europe, Russian Federation, Southeast Europe, South Caucasus and Central Asia) have recently experienced unprecedented large and disastrous wildfires. These extreme fires are considered consequences of socio-economic, land-use and climate changes. Some recent wildfire episodes have revealed an increasing vulnerability of society to direct and secondary effects of fire; e.g. the impacts of fire smoke pollution on human health and security. While there have been advances in fire management in some countries, there are still barriers preventing the sharing of scientific and technical knowledge and good practice between wildfire agencies in different States. These barriers have resulted in some wildfire agencies being unintentionally excluded from the technical information and advancements that they could utilize to develop greater national resilience and preparedness for large wildfire incidents. It is often the lack of resilience of a State to manage its own wildfire situation that results in the need for unplanned international emergency assistance.

The cross-boundary consequences of wildfires can be significant, e.g. through transboundary transport of wildfire smoke pollutants, border-crossing wildfires, threats to common global assets such as biodiversity, terrestrial carbon pools, atmosphere and climate. In addition, if wildfires occur in a politically sensitive area this might become additional source of contention between countries and have a negative impact on the overall security situation in the region. Fires burning on terrain contaminated by unexploded ordnance and land mines – both remnants of previous conflicts – pose an additional threat to personnel involved in firefighting and civilians.

The willingness of nations is increasing to share expertise and resources in fire management. Specialists of member countries of the United Nations Economic Commission for Europe (UNECE), the Council of Europe (CoE) through its Euro-Mediterranean Major Hazards Agreement (EUR-OPA) and the Organization for Security and Cooperation (OSCE) have expressed the need for developing voluntary principles and procedures on cross-border cooperation fire management and thus enhance economics, inter-operability and effectiveness in fire management between nations and regions.

In order to allow a coordinated, systematic approach for international cooperation in fire management, the Global Fire Monitoring Center (GFMC) through its coordinated international groups prepared the convention of the “UNECE/FAO Regional Forum on Cross-boundary Fire Management”. While the scope of the Forum, which was co-sponsored by the OSCE and the Council of Europe, focused on the Eurasian part of the region, the participation of member states of North America (Canada, U.S.A.) in the preparatory work and by attending the Forum ensured the consideration of expertise from countries that are comparatively advanced in fire management capacity and in the development of cross-border agreements and bilateral protocols and coordinated international operating procedures in fire management.

The main aim of the Forum was to elaborate recommendations to UNECE member states to build resilience of nations and communities within the UNECE region to wildfire emergencies and disasters by enhancing national and collective regional fire management capability through international cooperation.

The recommendations addressed among other:

1. Need for the promotion the understanding of and the response to the transboundary effects of fire
2. Need for expanding the scope and strengthening of international cooperation in fire management
3. Application of a holistic approach to wildland fire management
4. Adoption and continued development of the International Wildfire Support Mechanism (IWSM) and the Voluntary Fire Aviation Guidelines
5. Need for the exploration of options for the transition from voluntary rules to a more formalized regulatory framework, including the “exploration of options to establish a UN Secretariat mandated with the implementation of a global fire management programme that should have a key role in facilitating the free and open global transfer of knowledge”.
6. Suggestion to seek the interest of UN Organizations to become involved.

The International Seminar and Consultations "Current Trends and Challenges in Fire Management in the Eastern European Region" provides an opportunity to discuss the follow-up of the UNECE / FAO Regional Forum with representatives from the Eastern European region.

Furthermore the experience of the OSCE and selected proposed activities in supporting countries of Eastern Europe, the West Balkans, South Caucasus and Central Asia in enhancing fire management capacities will be presented and discussed. This will be done by evaluating the project “Enhancing National Capacities on Fire Management and Wildfire Disaster Risk Reduction in the South Caucasus”, which is conducted in partnership with the Environment and Security Initiative (ENVSEC), the OSCE and the Global Fire Monitoring Center (GFMC) and included the support to Armenia, Azerbaijan and Georgia to establish inter-agency cooperation in fire management (with representation of civil society), drafting national fire management policies and supporting training concepts for fire management personnel based on the EuroFire Competency Standards and Training Materials introduced in national languages. These training standards are currently available in 10 languages, including Armenian, Azerbaijani, Georgian, Greek, Russian and Ukrainian. The application of the EuroFire standards facilitate very much the interoperability of fire management specialists throughout the greater Eastern European / Black Sea region and will be applied once again at the Second Regional Fire Management Training in Turkey (Antalya Fire Management Training Center) in 2014 (following the first such regional training in 2010). The next phase of the ENVSEC project will support the development of a Fire Danger Rating System. Other ENVSEC Fire Management projects under the umbrella of the OSCE and GFMC are currently prepared for cross-border cooperation in the management of wildfires on terrain contaminated by radioactivity in Ukraine and Belarus, as well as in the Western Balkan countries and in Central Asia.

## **2. The Fire Experiment**

Throughout temperate-boreal Eurasia natural and planted pine forests (*Pinus sylvestris*) are frequently affected by fires. In the remote regions of boreal Eurasia, notably in the White Taiga of Siberia, lightning-caused fires have shaped the composition and dynamics of pine forest ecosystems over millennia. Frequent lightning fires are important to recycle biomass, provide nutrients contained in the

ash, create habitats that are critical and valuable for many plant and animal species to survive, induce forest regeneration, and remove, at a regular level, those combustible materials that otherwise are the reason for the development of severe and damaging fires.

All over the temperate-boreal forest region of Eurasia for long time fire has been considered to be a disaster and a catastrophe damaging or eliminating forests. Fire science, however, has revealed that fire may have beneficial effects on the ecosystem. After a fire a forest stand must not be dead. Instead, the forest may benefit from low-intensity fire which under moderate burning conditions may result in the reduction of hazardous combustible materials, and thus such a stand may become less flammable and subjected to a destructive fire.

It has also been observed in many countries that foresters sometimes, after a fire occurred in a pine forest, have conducted complete salvage logging, without waiting for sufficient time. After a typical surface fire the pine trees, including their root system and the humus layer, are often recovering, and the mortality rate is limited.

Fire scientists and managers in Western Europe and in Siberia have conducted a number of long-term fire experiments and developed operational methods to investigate the use of "prescribed fire" for the benefit and stabilization of natural and planted pine forests.

The Institute of Forestry and Landscape-Park Management of the National University of Life and Environmental Sciences of Ukraine, Kyiv, through its Regional Eastern European Fire Monitoring Center, will launch a series of long-term observation fire experiments in pine stands of the Boyarska Forest Research Station. On 10 April 2014 the first experiment will be conducted in Plesetske Forest Range District (Kvartal 71, Compartment 3), in which the technologies and methods of setting prescribed fire will be demonstrated to the participants of a first seminar of its kind in Ukraine. More prescribed fires with different experimental designs will be conducted in future together with the Global Fire Monitoring Center, Freiburg, Germany, which is associated with the National University of Life and Environmental Sciences of Ukraine, Kyiv, through its Regional Eastern European Fire Monitoring Center.

Participants of the Seminar are invited to observe the fire experiment and learn about the advanced knowledge in forest fire science by discussion with Ukrainian and German fire scientists.

**PROGRAM OF THE SEMINAR**  
**10 April 2014**

Ukrainian Center of Training and Advanced Education of Forestry Professionals  
("Ukrcentrkadrylis")  
Boyrka city, Lisodoslidna street, 2

<b>10 April</b> <b>9:00-9:15</b>	<p><b>Welcome to the participants</b></p> <p><b>Irklienko S.P.</b> Director, Ukrainian Center of Training and Advanced Education of Forestry Professionals ("Ukrcentrkadrylis")</p> <p><b>Lakyda P.I.</b> Director, Institute of Forestry and Landscape-Park Management, National University of Life and Environmental Sciences of Ukraine</p> <p><b>Goldammer J.G.</b> Director, Global Fire Monitoring Center (GFMC)</p> <p><b>Karpuk A.I.</b> Director, Boyarska Forest Research Station</p> <p><b>T.b.d.</b> Representative of Vasilikiv Regional Department State Service of Emergency Situations</p>
<b>9:15-9:50</b>	Goldammer J.G., Director, Global Fire Monitoring Center (GFMC) Prospects for Holistic Approaches in Fire Management at Landscape Level: Fire and the Nature of Forests, the People and the State
<b>9:50-10:10</b>	Zibtsev S.V., National University of Life and Environmental Sciences of Ukraine Current challenges of fire management in Ukraine
<b>10:10-10:30</b>	Shevchuk O.V. Peculiarities of fire management in Boyarska Forest Research Station
<b>10:30-10:45</b>	Gumeniuk V.V., Fire Lab, Institute of Forestry and Landscape-Park management, NULESU EuroFire: principals and application
<b>10:45-11:00</b>	Representative of Kyiv Regional Forestry and Hunting Management Department, Ukraine, Kyiv t.b.d. Representative of State Service of Emergency Situations t.b.d.
<b>11:00-11:30</b>	Lunch
<b>11:30-12:00</b>	Transfer to the experimental site for burning experiment (Plesetske forest range district, kvartal 71, comp. 3)
<b>12:00-16:00</b>	Burning experiment
<b>16:00</b>	Press conference