VOLUNIARY COMMIL

The Global Wildland Fire Network



SENDAL FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030 United Nations International Strategy / Office for Disaster Risk Reduction

A Voluntary Commitment to the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030





Regional Eurasia Wildland Fire Network



Regional Eurasia Fire Monitoring Center (REFMC)



Major Landscape Fire Issues in Central-Eastern Eurasia

Regional Climate Change Temperature Change in the Last 50 Years



The Regional Eurasia Wildland Fire Network

The Network was founded in 2002 and first designated as "Regional Baltic Network". The network involves actors in countries of northern temperate-boreal Eurasia stretching from the United Kingdom in the West to the Far East of the Russian Federation. While within the 27 EU Member States numerous dedicated networks of fire scientists and practitioners have evolved over the recent years, the 47 Member States of the Council of Europe – half of them signatory parties of the European and Mediterranean Major Hazards Agreement (EUR-OPA) – and the 57 Participating States of the Organization for Security and Cooperation in Europe (OSCE) that are situated East / Southeast of the European Union, are served by the Regional Eurasia Wildland Fire Network. The Network is coordinated by the Global Fire Monitoring Center (GFMC) (Germany) and the three Regional Fire Monitoring Centers for Southeast Europe / Caucasus (Skopje, Republic of North Macedonia, since 2010; separate Poster), Eastern Europe (Kiev, Ukraine, since 2013; separate Poster) and Central Eurasia (Krasnoyarsk, Russia, since 2017). The networking region is partially overlapping with the Southeast Europe / Caucasus, Central Asia and the Northeast Asia Wildland Fire Networks. Regional cross-boundary cooperation in wildland fire emergency situations is promoted by the networking activities.



Average global temperatures from 2014 to 2018 compared to a baseline average from 1951 to 1980. Credit: NASA, Goddard Institute for Space Studies

Wildfires moving to the High Latitudes: From Greenland to Northern Siberia



Opening of the Regional Eurasia Fire Monitoring Center (Krasnoyarsk, Russia)

Satellite monitoring of landscape fires in Siberia has been carried out since 1996. Agreement between The Global Fire Monitoring Center and Sukachev Institute of Forest was signed in 2017 to establish the Regional Eurasia Fire Monitoring Center (REFMC) at the Sukachev Institute for Forest, Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia. In August 2019 the Center was officially inaugurated.



In the REFMC a detailed and precise database of wildfires in Siberia is available for the period 1996 to 2019 in GIS layer format. A number of technologies for fire characteristics assessment were adapted to the conditions of forest fires in Siberia. Satellite data and GIS technology are key for devising measures in fire prevention and monitoring for Siberia.



The wildfire risk assessment system includes not only methods for detecting fires, but also the possibility of using a computer model for forecasting of forest fires spread.





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The disappearance of snow and ice cover and increasing desiccation of peatlands and tundra ecosystems in the Northern Boreal Zone have resulted in higher wildfire occurrence of wildfires. Source: NASA.

Wildfires on Contaminated Terrain Remnants of two World Wars and the Cold War in Central, Eastern and Southeast Europe



Armored firefighting technologies – the only means available for suppression of dangerous fires – Germany 2018-2019

Policy and Agency Response

Example: International Conference **Protection of Human Settlements and Social** Infrastructure from Wildfires

Moscow, Russia (November 2017)



Real-time data on forest fires is available for different agencies including the Federal Forest Service (FFA), EMERCOM and fire ecology science as well. Remote system for fire monitoring is the main source of data for analysis and forecasting of fire impact at the scale of ecosystems of Siberian forests and globally since the assessment of forest burning in Eurasia is strongly significant.



Wildfire map on the

territory of Siberia.

Terra/MODIS data

(March-September 2019)

Terra/MODIS image of smoke from active wildfires over Evenkiya region (August 2019)



Meteorological information used for daily monitoring of the fire danger in forests and for preparing predictions for short, medium and long term periods.



Amendments to the Fire Management regulations in 2015 provided the possibility of suspending firefighting operations if settlements or objects of the economy are not in danger and in cases where the estimated costs of extinguishing exceed the expected damage that fires might cause. Such decisions are only possible within the boundaries of territories called *Forest Fire* Control Zones determained by the regional authorities and approved by the Federal Forestry Agency.



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The Federal Headquarters of Russia is responsible for the following tasks: - Definition of specific regions in which it is necessary to extinguish forest fires using explosive

- Definition of specific regions in which it is necessary to extinguish forest fires using artificial
- Inter-regional mobilization and operations of firefighting forces and fire extinguishing means
- Determination of specific regions in which assistance is needed in stabilizing the forest fire situation and preventing and eliminating emergencies in forests by the forces of the Federal Reserve



