7th International Wildland Fire Conference

Regional Statement of the Southeast Europe / Caucasus Region – An Input Paper to the Conference Statement

30 October 2019

Introductory Remarks

Due to increased incidence of extreme temperatures, the frequency and the scale of wildfires have been on a rise across the globe. The Southeast Europe / Caucasus (SEE/C) region is not an exception in this regard. Although the main causes of forest fires in this region are linked to human activities (agricultural and pastureland burning) and negligence, warmer and dry climatic conditions increase the likelihood of wildfires. Furthermore, the Mediterranean types of forests (beech and coniferous forests) that are dominant in the region become particularly susceptible to forest fires.

If causes of fires are related to climatic conditions, the scale of fires is partially attributed to the structural and non-structural deficiencies existing in the countries. As the Regional Report of Forest Fires in the South Eastern Europe[1] suggests, the countries of the region lack co-ordination between various institutional and administrative bodies; there is also a lack of national early warning systems; and institutional capacities need further strengthening.

Specific landscape fire problems of the region

The presence of UXO is an emerging concern in the management of wildfires on any land with vegetation cover. The combustion of UXO and the dispersal of contaminants pose a threat to the public and the environment over a wide area, and a particularly serious threat to firefighters working in contaminated areas.

Unexploded ordnance can be found on hundreds of thousands of hectares of forests and other land throughout the SEE region. Remnants from First World War battles along the 1917 frontlines in the southern area of the Republic of North Macedonia have repeatedly caused problems. During the 2007 fire season, for example, over 70 explosions of ammunition triggered by forest fires were recorded.

On some sites of earlier armed conflicts on the territory of the former Yugoslavia (e.g. in Bosnia and Herzegovina and Kosovo*, active landmines are limiting access and forest and fire management over large areas. In Bosnia and Herzegovina alone, more than 200,000 ha of forests are contaminated by landmines, and landmines are also a problem in Albania.

Due to recent happenings in Georgia and longstanding conflict in Nagorno Karabakh the situation with UXO in the Caucasus region is almost the same.

Gaps / shortcomings in landscape fire science, management and policies

Due to differences in the socio economic, political, climate and vegetation (forest and other vegetation) circumstances in the countries the SEE/C region it is very difficult to list all gaps / shortcomings in landscape fire science, management and policies of the region. This report emphasizes the most common and most important gaps / shortcomings that have arisen in the region in the last ten years.

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

[1] http://www.themisnetwork.eu/uploads/documents/Studies/Forest%20Fires%20in%20SEE_Regional%20Report.pdf

Institutional and sectorial responsibilities in wildland fire management

The nature of wildfires dictates that their direct management — from prevention to preparedness to suppression — must be undertaken at a very local level. Land must be managed for prevention by the Forestry Service, individual foresters and farmers; and firefighters must be ready to respond quickly to nearby fires. However, this local organisation must be part of a broader, landscape-scale strategy to reduce the damaging potential of fires on the environment. This must be expressed in the land management and emergency response policies under which various agencies and sectors have obligations to manage aspects of wildfires.

A common theme running through the legislation and institutional set-up of the individual countries is that the relevant agencies and sectors undertake wildfire management activities to some extent in isolation from one another.

Abandoned agricultural land and pastures

In contrast to trends elsewhere in the world, where primary forest is being cleared to make way for agricultural land and developments, the area of agricultural land in many parts of the SEE/C region is decreasing as fields are abandoned. This trend is associated with the “ageing” of rural communities and the migration of young people away from villages in the hope of better opportunities and lifestyles in urban areas or abroad.

In terms of wildfires, this results in a greater threat to the remaining rural populations, settlements and resources. Due to the increasing quantity of fuel in abandoned fields, highly flammable areas are connected in the vicinity of rural settlements. To compound the problem, the ageing, declining and scattered populations in these areas have little capacity to prepare themselves for, or defend themselves against, the threat of uncontrolled fires.

Specialised training and personnel

Due to the nature of wildfires, those involved in prevention and suppression activities require additional skills and specialised equipment. This is particularly important in cases where wildfires are only one aspect of the firefighters’ work, rather than their professional focus.

There are no firefighters dedicated primarily to tackling wildfires. Firefighters in the forestry sector are recruited from among the sector’s permanent employees (forest workers, forestry engineers etc.), and only for forest fire suppression activities. In most cases, emergency responders are given some level of specialised wildfire training to complement their primary roles in civil protection, urban firefighting or military service.

Training and expertise are shared among some of the countries in the region on an ad hoc basis.

Volunteer firefighters

The recruitment of volunteer firefighters is a popular way both of engaging local populations in wildfire management and of increasing overall wildfire response capacities in a cost-effective manner by training and equipping a widespread, part-time force of local people to assist in fire emergencies.

Although the approach taken varies greatly across the SEE region and beyond, some aspects are generally considered desirable, including: sufficient and compatible training to enable volunteers to effectively assist professional fire responders; sufficient and compatible equipment and communications; and reasonable financial and legal assistance and insurance to protect volunteers and their families. The engagement of volunteers during the working time should be considered by the employers as active working time; injury or fatality as an accident at work. The costs for such expenses by private entrepreneurs should be reimbursed by the government.

Special vehicles and equipment

There is a large number of institutions and organisations involved in forest fire protection, including forest fire suppression in the countries of the SEE/C region. All of them have certain resources for forest fire suppression (tools, equipment, vehicles etc.) at their disposal, but they are not sufficient.

Much of the equipment is outdated (the specialised vehicles, for example, are typically over 30 years old), non-operational or insufficient. The institutions and organisations involved in forest fire protection do not take the same approach or follow the same rules when it comes to the procurement of equipment and vehicles. All equipment and vehicles, regardless of ownership, must be part of the unique national forest fire protection system.

Very often the newly procured vehicles are almost all designed for tackling urban fires. Other forest fire suppression equipment (hand tools, water supply systems, personal protective equipment etc.) is either obsolete or lacking. The most of the equipment and vehicles currently in use need to be reviewed and a comprehensive national plan and strategy drawn up, including short-term, mid-term and long-term activities for the improvement of the situation.

Participation of civil society

The goal of most agencies tasked with managing wildfires is to protect public assets as well as the lives, livelihoods and assets of the communities living in those areas that may be affected by fires. Engagement with these populations can take a number of forms, including the formation of volunteer fire teams. The most common form of engagement with civil society is raising public awareness of the possibility of wildfires during the fire season, along with providing advice to evacuate the area or take cover in the event of a wildfire. There are some examples of good practice in the region, but there is still a need to strengthen the participation of civil society in forest fire protection in all the analysed countries.

Use of advanced data and information systems (forest fire early warning systems)

In all countries in the region, a system operates during the fire season to provide at least the daily evaluation and reporting of the weather conditions in relation to fires, based on hydrometeorological input data. Almost all the systems in the region are based on the adapted Canadian Fire Weather Index (FWI) scale.

All the countries use internationally available datasets, such as the Moderate Resolution Imaging Spectroradiometer (MODIS), the European Forest Fire Information Service (EFFIS), the EU Meteorology Satellite (EUMETSAT) or the Global Fire Early Warning System (EWS). Only the Republic of North Macedonia has its own national forest fire early warning system (MKFFIS).

There is an urgent need to develop a national forest fire early warning system in each of the other countries. In the future, using these national systems, a regional SEE/C system could also be developed.

Fire research and its application in forest and fire management

Research into wildfires and wildfire management can be divided into two broad directions. The first is related to the institutions carrying out the research. In the case of Spain, for example, research into wildfires is undertaken within the forest industry/forestry. This may contribute to reinforcing the misleading notion that vegetation fires are predominantly a “forest” issue. On the other hand, research in the R.N. Macedonia, Serbia and Bosnia and Herzegovina is integrally linked to university departments that specialise in forestry, fire science, natural disasters and atmospheric science.

Another way of approaching wildfire research is to look at the main topics being investigated. In cases where the science of fires in the environment is at a relatively early stage, research is dominated by the exploration of fundamental fire behaviour and fire ecology topics, as researchers and managers alike attempt to understand the nature of fire in the landscapes of interest.

Regardless of the approach used, wildfire research must be strengthened in all countries in the region.

Main advances achieved since the last International Wildland Fire Conference

The main activities and achievements of the Regional South East Europe / Caucasus Wildland Fire Network (RESECWFN) were:

- Organization of the Regional Consultation on Cross-boundary Cooperation in Fire Management (November 2016, Skopje, Republic of North Macedonia)
- RFMC/USFS Project “Enhancing of the ground and aerial forest fire suppression capacities in the Republic of Macedonia” (2016)
- Partner in the European Union project "SVAROG 2017" (2017-2018)
- Participation at the Workshop "Mitigating Destructive Landscape Fires in Europe" FIRE-IN project (February / March 2018, Berlin, Germany)
- Organization of the Regional Workshop "Landscape Fire Management in South Eastern Europe" (December 2018, Skopje, Republic of North Macedonia)
- Participation at Consultation Workshop "European Hub for Civil Protection and Crisis Management" (June 2019, Rotterdam, The Netherlands)

One of the significant achievements of the RSECWFN was the initiation and support of the First International Fire Management Week, Islamic Republic of Iran, which included a National Round Table on Fire Management and a Training Course on Integrated Fire Management (Mazandaran, Kelarabad, Islamic Republic of Iran, May 2016).

The First International Fire Management Week was organized and hosted by the Forest, Rangeland and Watershed Management Organization (FRWO), Tehran, Islamic Republic of Iran. The first part – the National Round Table on Fire Management – was led through the Global Fire Monitoring Center (GFMC), Secretariat of the Global Wildland Fire Network (GWFN) (Freiburg, Germany), the Regional Central Asia Fire Management Resource Center (RCAFMRC) (Ulaanbaatar, Mongolia), and the Regional Fire Monitoring Center (RFMC) (Skopje, Republic of North Macedonia).

The second part of the First International Fire Management Week provided on on-site field assessment of the fire and fire management situation in the most fire-endangered forest of the country. It was followed-up by a concluding consultation between the host country and the GFMC / GWFN.

Proposals for Solutions, Conclusions and Recommendations

As a result of the above listed regional meetings and activities and gaps / shortcomings identified in landscape fire science, management and policies the following general proposals for solutions, conclusions and recommendations could be given:

(1) Sharing of Expertise in Inter-Agency Coordination and Cross-boundary Cooperation in Fire Management

- Systematic evaluation and sharing of experiences and lessons identified of countries in interagency coordination and bilateral agreements on cross-boundary cooperation if fire management should be pursued
- Stronger relationships in fire management between SEE/C countries should be developed at all levels.
- Training is most important. The application of the EuroFire Competency Standards and Training Materials are offering a good opportunity for systematic joint training of firefighters in the region, especially since they are available in most languages spoken in the region.

(2) Early Warning of Wildfires

- The role of wildfire early warning systems has to be given high priority
- Countries in the region should consider utilizing the example of the Macedonian Forest Fire Information System (MAKFFIS) as a decision-support tool for wildfire preparedness and fire management.

(3) Given the high share of human-caused fires, notably accidentally or intentionally cause fires, there is a need to analyze fire causes.

(4) The role of voluntary initiatives and contributions in fire management is increasingly recognized. Experiences with countries in which voluntary firefighters are adequately trained and insured should analysed for national application.

(5) Local populations should be trained in prevention and first response to wildfires. The Guidelines “Defence of Villages, Farms and Other Rural Assets against Wildfires: Guidelines for Rural Populations, Local Communities and Municipality Leaders in the Balkan Region” are available in most languages spoken in the region and should be applied systematically.

(6) Fire management approaches need to take a holistic approach at landscape levels and prioritize addressing the use of fire in agriculture and pasture management.

(7) To improve the mapping of contaminated areas in order to gain a better understanding of how to manage such lands in the interests of ecology, fire prevention and safety in the countries with land contaminated by UXO.

(8) To increase the investment in the national and especially regional wildland fire research activities.