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Global Fire Monitoring
Center (GFMC)



UNECE / FAO Team of Specialists
on Forest Fire

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**White Paper on Fire Management Policies and International
Cooperation in Fire Management in the UNECE Region**

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White Paper on Fire Management Policies and International Cooperation in Fire Management in the UNECE Region

1. Introduction

The nature of wildland fire in the UNECE region is changing in ways that require all relevant stakeholders to not only better cope with the current state of affairs but also adapt and develop their approaches inherent to their systems to improve their dynamic capacity to deal with unprecedented circumstances and threats. To compound this evolving situation, management of wildland fire in UNECE member states has been found to be limited in a number of common ways that can be identified at all levels of management – from the fundamental, ground-level management of natural and cultural landscapes, to the strategic planning of internal, national systems as well as the attempts that have been made to collaborate internationally to address these problems more successfully.

This White Paper outlines these major forces of change, the challenges to be prepared, and concludes that international cooperation in the region has the potential to be a very powerful tool in increasing the capability for the wildfire threat and the role of natural and management-set fire to be better understood and regulated. The ties that can be formed through improved international cooperation can, and must, have effect at the ground level and impact on the real management of the landscape to be of any value. Drawing on, and improving upon existing examples of legally-binding and voluntary international agreements, the proposals tabled at the UNECE/FAO Regional Forum on Cross-boundary Fire Management have the potential to progress this goal substantially.

2. Pillars of a Concept for a Coordinated Approach in Fire Management in the UNECE Region embedded in the Global Landscape of Legally Binding Conventions and Voluntary Initiatives

Pillar I

Eurasian and Global Natural and Cultural Landscapes in Transition

The nature of wildland fire – fire regimes – across the UNECE region and globally is evolving due to anthropogenic changes in the factors that influence the natural and cultural environments. The impact of these changes can be noted already and is expected to intensify in the coming decades.

Climate change has already been linked to the higher prevalence of extreme weather conditions associated with damaging wildland fire such as drought periods and heat waves. As a more creeping impact, the predicted movement of bioclimatic zones is predicted to trigger vast changes in the geographic distribution of plant species across the world. In some cases, the change of potential natural vegetation, and subsequent mortality of extant vegetation during the transition phase could serve to compound the threat posed by changing weather patterns.

In the past few decades, a variety of social, political and economic drivers have resulted in a development of the landscape and its features toward a state that is more prone to wildland fire and its negative impacts. Examples include the management of forests and agricultural lands to eliminate all types of fire and the widespread abandonment and re-vegetation of former agricultural lands as markets inadvertently suppress farming on low-productivity or isolated land. Other examples include the excessive and unnecessary burning of agricultural lands resulting in unprecedented burden of emissions affecting the environment, human health and security.

Human settlements are also developing toward a state where many tens of millions of people in the UNECE Region are living at the fuzzy interface between vegetated lands and the peri-urban environment, or in residential areas scattered across landscapes. Clear methods of dealing with fires in this environment have not yet been fully developed.

In many instances the development of these landscape-scale factors appears to have breached a threshold where the existing suppression-heavy paradigm of wildland fire management is no longer able to limit the damage caused by wildfires to an acceptable degree.

Pillar II

Harmonizing Efforts Towards Increasing Landscape Fire Resilience

There is growing recognition across the UNECE Region that the existing approaches to fire management in many countries lack the breadth and depth required to manage fire to sufficiently protect people, assets and environment and consist primarily of treating wildland fire inherent to the system as a natural disaster roughly equivalent to earthquakes or storm events. As such, the 'preparedness' and 'response' phases of this management have been increasingly fortified at the neglect of vital 'prevention' and 'recovery' phases. This is true at all depths of authority in the UNECE region – from the local and provincial management agencies charged with managing specific lands, through the strategic role played by national governments to international cooperative efforts. However, considering the continually increasing occurrence of wildfire damages, this approach remains to prove its effectiveness.

The fact that fire is a disturbance with a fundamentally different character to other natural disasters is often overlooked. Its negative impacts on people, assets and the environment need to be addressed by management actions taken outside of the times when damaging fire is likely to occur. The risk of damaging wildfire can be identified and reduced by a planned preventive approach. Beyond the moral imperative of protecting human lives, these preventative actions are not recognised widely enough for the fact that, economically-speaking, they offer huge efficiency advantages.

Another fact that needs to be better recognised is the nature of wildland fire as a landscape-scale disturbance. Considering this, all elements of the wildland fire management process must be contributed to by all the landholders and other stakeholders that have an interest in limiting potential damage. This stakeholder group is very broad and, apart from being bound by the topic of fire, largely unconnected. Management strategies and actions should be formulated with direct involvement of private and public owners of forests, agricultural and other lands, the public sectors of health, civil protection, law enforcement, agricultural policy and forest policy, as well as academia and civil society.

Again, these inadequacies have been found to ring true at all levels – local, national and international. Such shortfalls need to be countered by policies and pragmatic actions that are harmonized with all stakeholders through inter-agency and participatory approaches that are carefully designed to meet the demands of managing fire in landscapes in transition.

Pillar III

Sharing of Responsibilities and Capacities in Fire Management – National to International

To improve fire management systems at any level, the best tools and experience must be sought, including examples of cooperation, problem-identification and forward-thinking. Good examples of these tools can currently be found in abundance in use at all levels, from local areas, the provincial level, at the national level and between countries. Many of these are to be found in UNECE member states, and in combination with a few international examples, there is more than enough precedent upon which to base positive and effective actions aimed at improving wildland fire management across the UNECE region.

The creation of a central body (acting as a forum, framework or mechanism) should borrow elements that have proved effective from other international agreements already in place or under negotiation, such as the Rio Conventions and the process currently underway towards forming a *Legally Binding Agreement on Forests in Europe*. Primarily, such a body must allow UNECE member states to access

a great diversity of experience and expertise from the international community to help assess and address their internal problems. Secondly, the establishment of such a body would facilitate coordination in limiting the negative impacts of wildland fire at the regional level.

At the present time, apart from calls for reduction (exclusion) of vegetation fires, principles for fire management are not, or only marginally, specifically addressed in any legally-binding international convention, and regional examples such as the *ASEAN Transboundary Haze Agreement*, the *Convention on Long-Range Transboundary Air Pollution* (CLRTAP) and some bilateral resource-sharing agreements approach only few elements of fire management, rather than its management as a whole. As such, a UNECE-wide or international mechanism is needed to amalgamate and service the objectives of legally binding instruments and voluntary initiatives with regard to fire management.

3. Recommendations of the UNECE Regional Forum on Cross-Boundary Fire Management

Based on the contributions to the Forum by the project coordinators and the two Working Groups, it can be recommended that the UNECE member states make all possible efforts to recognise and address the nature of wildland fire in their country and their existing capacity to deal with it. From this point it will be possible to begin to address the current shortfalls internally, and through an international mechanism. The following three proposals should be considered:

Ensuring that the UNECE Regional Forum on Cross-boundary Fire Management will initiate a sustained process in the region and globally

It is strongly recommended that the UNECE member states act to transform the nature of the UNECE Regional Forum to become a permanent institution. Such an ongoing Forum would act as a framework through which the strategic objective of *“Facilitation of a nurturing and sustainable culture of knowledge exchange and continual improvement for wildfire practitioners and policymakers within the UNECE Region and, potentially, globally”* could continue to be addressed over the coming years.

The establishment of a permanent UNECE Regional Forum on Cross-boundary Fire Management would be the logical follow-up of the work of the UNECE/FAO Team of Specialists (ToS) on Forest Fire, which has been operational since the early 1980s and – by terms of reference – originally designed to address forest fire protection in the region. Such a transfer of duties and the inclusion of non-forest fires would be in line with the intent of the Global Fire Monitoring Center (GFMC), which served as Leader of the ToS for over 20 years and expanded the scope of work of the ToS beyond the borders of the UNECE region by creating the *Global Wildland Fire Network* and the *Wildland Fire Advisory Group* under the umbrella of the *UN International Strategy for Disaster Reduction* (UNISDR) since the early 2000s.

The transition of the ToS to a cross-sectoral Forum would offer a stronger mandate to address fire beyond the traditional bounds of forests, which were the focus at the time the ToS was established. Such a move would necessarily involve national and international bodies responsible for the management of agriculture, landscapes, conservation, human health and security, and transboundary processes in the atmosphere affecting its function as climate engine. Consequently this Forum would be able to advise the development of informed and coordinated policies in a manner more in keeping with the current and future challenges associated with fire in the region.

In close cooperation with the UNISDR *Wildland Fire Advisory Group* the Forum could provide the UNECE regional perspective to other regions globally and serve international conventions as well as the agendas of UN agencies and programmes and other international organizations. Tapping into the expertise of fire managers and academics in the member states, it would also be able to offer such services based on secure technical and advisory inputs.

Building Resilience of Nations and Communities within the UNECE Region to Wildfire Emergencies and Disasters

- While the strategic work in further developing national and international fire management and related policies will require a sustained, multi-year programme of work, it is imperative to respond to and counteract the rapidly changing fire regimes and vulnerabilities experienced at the present time. Advantage should be taken of the rich but unevenly distributed expertise of actors in fire management. Submitted by the *International Working Group on Cooperation in Wildfire Preparedness and Response* (IWG CWPR), this proposal recommends the formation of an *International Wildfire Support Mechanism* (IWSM) that will assist nations to improve their capacity to cope with their wildfire situation. The mechanism will provide a platform/framework from which to cascade improved knowledge, good practice, experience and training throughout the international wildfire community for the benefit of all.

The creation of the IWSM will be a catalyst for stimulating the sharing of knowledge and experience across the region, establishing a mechanism to enable all wildfire agencies to benefit from their membership of a wildfire community dedicated to increasing international collaboration and cooperation, with the future potential to expand to other regions globally.

Adoption of Voluntary Guidelines for Fire Aviation at global level

The report submitted by the *International Fire Aviation Working Group* (IFAWG), recommends the adoption of voluntary guidelines for the use of aerial means in wildfire management in the UNECE region, in order to improve the safety, effectiveness and efficiency of fire aviation. Adoption of the guidelines would ideally form part of a wider agreement on international cooperation aimed at enhancing fire management capability within the region. The overall purpose of the proposal is to make a substantial pragmatic-technical contribution to building the resilience that will reduce the human and economic costs resulting from wildfires. This recommendation is complementary to the conclusions of the *International Working Group on Cooperation in Wildfire Preparedness and Response* (IWG-CWPR) and the recommended establishment of an *International Wildfire Support Mechanism* (IWSM). It is intended that fire aviation will be an integral component of the IWSM. Therefore, adoption of the fire aviation guidelines referred to in this proposal will be complementary to, and consistent with, the priority actions for implementing the IWSM strategic objectives.

Final Note

This White Paper aligns with the priority areas identified within the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*. If the recommendations will be adopted, the main expected outcomes will be a substantial reduction in the loss of life and damage to societies, economies and the environment as a result of wildfire disasters.