



The Global Fire Monitoring Center (GFMC)

# **Proposal for the Development of an International Landscape Fire Management Framework**

## **Background, Rationale for Action and Objectives**

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### **Background**

Globally, wildfires and excessive application of fire in land use and land-use change are an unprecedented and growing threat to communities and to natural, cultural, rural, urban and industrial landscapes. The problem is increasing due to the consequences of social, economic and ecological changes (land-use change, demographic change, ecosystem degradation) and climate change. This is impacting the sustainability of natural and cultural landscapes, including their ecosystem services, human health and security, and the loss of public and private assets, including critical infrastructure. The increasing occurrence and duration of droughts in all continents have resulted in wildfires of high severities, which are difficult and often impossible to control and lead to ecosystem degradation with subsequent secondary damages such as loss of topsoil, floods, erosion or landslides, resulting in the loss of stability, biodiversity and productivity of natural and cultural landscapes.

### **Rationale for Action**

Current risk governance and institutional arrangements in many countries are inadequate to cope with this growing trend, notably due to the prevailing paradigm of addressing the problem through individual and disconnected services and actions in fire prevention or suppression. Unified and integral planning must reframe, ensure and strengthen societal, environmental and economic resilience to landscape fires by addressing coherent, cohesive and coordinated cross-sectoral approaches in risk governance and ownership, stakeholder dialogue, socio-economic innovation in rural landscapes, favoring nature-based solutions, and strengthening local action towards creating resilient ecosystems and communities

Systematic application of principles of Integrated Fire Management (IFM), based on the wealth of traditional expertise, advanced fire science and technology development, contributes to sustainable land management, ecosystem stability and productivity, maintenance and increase of terrestrial carbon stocks, and reduction of unnecessary emissions of pollutants that affect human health and contribute to the climate crisis.

Collective international efforts are needed to address impacts of landscape fires that are of transboundary nature and currently affecting – at an unacceptable level – common global assets such as atmosphere and climate, natural and cultural heritage, and human health and security. Systematic application of principles of Integrated Fire Management (IFM), based on the wealth of traditional expertise and advanced fire science, contributes to sustainable land management, ecosystem stability and productivity, maintenance and increase of terrestrial carbon stocks, and reduction of unnecessary emissions of pollutants that affect human health and contribute to climate change. The role of IFM as an accountable contribution to reduce greenhouse gas emissions, maintain or increase terrestrial carbon pools in all vegetation types and ensure ecosystem functioning needs to be acknowledged.

In order to implement IFM there is a demand for capacity building, investments and outreach work at global level. Since traditional and advanced knowledge of IFM principles is available for all vegetation types, the systematic application of IFM, notably community-based fire management approaches, should be promoted by prioritizing exchange of expertise between countries. The development of regional programmes and / or resource centres for capacity building including training in fire management should be supported by countries and international organizations. Bilateral and multilateral legally binding agreements and voluntary exchange instruments are needed.



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## Objectives

In addressing these areas of concern and the priority actions to be taken, there is a need to build and strengthen governance in fire management of natural, cultural and urban-industrial landscapes through harmonized and coordinated international cooperation. Three implementation goals are envisioned:

**Goal 1.** In developing IFM capabilities, the global fire management community is encouraged to help the most vulnerable societies to address fundamental threats posed by wildfires and excessive fire use to lend support in the form of financial, technical, or operational measures, to offer basic training and expertise for strengthening local education efforts, capacity building and rural community-based initiatives. This Goal acknowledges that local communities are the most vulnerable to the effects of a warming climate and of changing fire regimes.

**Goal 2.** In transitioning fire management settings where basic needs are met or institutional capacity are established, the fire management community is encouraged to continue supporting efforts recognized under Goal 1; establish regional programs and / or establish or strengthen resource centers where needed; advance technical efforts such as fire detection, early warning and monitoring; enhance cross-border cooperation; further apply practical measures like standard operating procedures, a common incident management system for use in bilateral and multilateral wildfire emergency response; and to strengthen participatory fire management approaches (community-based fire management, involvement of volunteers).

**Goal 3.** In advanced fire management settings, efforts under Goals 1 and 2 shall be continually evaluated and improved as appropriate; emphasis shall be placed on further developing legal frameworks where desired; enhancing bi- and multi-lateral mechanisms for fire management expertise and resource sharing; share and advance science and technology; and when in the position, lend any and all forms of support to vulnerable and transitioning fire management communities.

These goals are addressing, among other, the Sustainable Development Goals 13 and 15 and meet the Guiding Principles and Priorities for Action of the Sendai Framework for Disaster Risk Reduction (SFDRR). Furthermore, effective Integrated Fire Management may constitute an accountable contribution to reduce greenhouse gas emissions, maintain or increase terrestrial carbon pools in all vegetation types and ensure ecosystem functioning. Effective Integrated Fire Management will contribute to the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, the Convention on Biological Diversity (CBD), and the United Nations Convention to Combat Desertification (UNCCD), and other international conventions such as the Ramsar Convention on Wetlands or the Council of Europe's Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) or the World Heritage Convention (WHC).

Furthermore, these goals are addressing the intent of the international community to strengthen the interoperability and thus the effectiveness and efficiency of international response to wildfire emergencies. In this regard, the responsibilities of the UN – through the Environmental Emergencies Center of the UNEP/OCHA Joint Environment Unit and related instruments such as the International Search and Rescue Advisory Group (INSARAG) and multilateral / intergovernmental agreements and mechanisms for Civil Protection in Southeast Asia (ASEAN Agreement on Transboundary Haze Pollution), Europe (EU Civil Protection Mechanism – UCPM; Council of Europe's Major Hazard Agreement EUR-OPA; Organization for Security and Cooperation in Europe – OSCE), South America (Amazon Cooperation Treaty Organization – ACTO) and the International Rainforest Alliance.



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## The International Landscape Fire Management Framework

Strengthening and streamlining the effectiveness and efficiency of international cooperation in landscape fire management at local, national, regional and international level will require an international instrument, which will be based on commonly agreed and accepted principles in fire management governance. This instrument will rely on the rich history of initiatives and achievements of international cooperation in landscape fire management.

- *The instrument will be served by a one-stop international platform, which will provide advisory support to national, regional and international actors in fire management, liaise requests for assistance and offer support in exchange of knowledge, expertise, personnel and technologies.\*)*

The **Mid-term Review of the Sendai Framework for Disaster Risk Reduction** and the **Global Platform for Disaster Risk Reduction 2022 (GP2022)** will provide an opportunity to formulate such an instrument. Countries, intergovernmental organizations and other stakeholders are encouraged supporting the call for the “International Landscape Fire Management Framework”.

In support of this process, the Committee of the 8<sup>th</sup> International Wildland Fire Conference, which will be held in May 2023 in Porto, Portugal, will work with scientists and practitioners to compile and draft “International Principles for Integrated Landscape Fire Management Governance”, which will provide guidance for the development of national and cross-boundary policies for landscape fire management and their application in practice.

- <https://www.wildfire2023.pt/>

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About GFMC: <https://gfmc.online/> / <https://gfmc.online/wp-content/uploads/GFMC-Portfolio.pdf>

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### References

The proposal refers to the following statements of international thematic conferences:

- [Recommendations of the UNECE / FAO Regional Forum on Cross-boundary Fire Management](#) (05 December 2013) (UN Geneva)
- [The Pyeongchang Declaration “Fire Management and Sustainable Development”](#) and the [Conference Statement \(Annex to the Pyeongchang Declaration Fire Management and Sustainable Development\)](#) (16 October 2015) (6<sup>th</sup> International Wildland Fire Conference)
- [Campo Grande Statement “Building Sustainable and Fire-Resilient Societies and Landscapes”](#) (01 November 2019) (7<sup>th</sup> International Wildland Fire Conference)

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Review of 30 years of international cooperation in landscape fire management (2021):

- [Goldammer, J.G. 2021. Thirty Years International Cooperation in Landscape Fire Management: Review of Progress, Achievements and Prospects for the Future.](#) This paper is based on the opening keynote of the 7th International Wildland Fire Conference, held in Campo Grande, Brazil, 28 October 2019: [Biodiversidade Brasileira 11 \(2\), 2021, p. 6-52](#)

White Paper “Vegetation Fires and Global Change (2013):

- Goldammer, J.G. (ed.). 2013. Vegetation Fires and Global Change. Challenges for Concerted International Action. A White Paper directed to the United Nations and International Organizations. [Kessel Publishing House, Remagen-Oberwinter, 398 p. \(ISBN 978-3-941300-78-1\)](#)

**\*) International Wildfire Preparedness Mechanism (IWPM)**

Until the consent-based objectives and *modus operandi* of the International Framework will be defined and become operational, the Global Fire Monitoring Center (GFMC) will continue serving the “**International Wildfire Preparedness Mechanism**” (IWPM). The IWPM was developed in following up the UNECE/FAO Regional Forum on Cross-boundary Fire Management (UN Geneva, November 2013). The IWPM, currently hosted by the GFMC, is a non-financial instrument serving as a broker / facilitator between national and international agencies, programs and projects to exchange expertise and build capacities in integrated fire management and enhancing preparedness to wildfire emergency situations.

- <https://gfmc.online/iwpm/index-7.html>