



COMMITTEE ON FORESTRY

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Forests Fires and the Global Fire Platform

Executive Summary

Wildfires are burning longer and more intensely and occurring in forests, peatlands and permafrost during fire seasons that are now extended in many parts of the world. Climate change and land-use change are projected to make wildfires more frequent and intense. There is a need to shift the focus of attention and investment on wildfires from reaction and response to prevention and preparedness.

FAO's Fire Management Strategy¹, focused on Integrated Fire Management (IFM), continues to underpin FAO's support and interaction with Members, fellow UN agencies, and international and regional organizations. Most recently, FAO has supported integrated fire management approaches in Cambodia, Myanmar, Pakistan, Portugal, Sudan, Timor Leste and Trinidad and Tobago.

At the XV World Forestry Congress, FAO launched the Assuring the Future of Forests through Integrated Risk Management (AFFIRM) Mechanism² with funding from the Korea Forest Service. AFFIRM will feed directly into a Global Fire Management Platform, which is being co-developed by FAO and the United Nations Environment Programme (UNEP). The aim of the global platform is to strengthen countries' capacities to implement IFM, help create linkages and routine connection between regional groups focused on fire management, and assist Members in enhancing climate ambition in support of the Paris Agreement and responding to priority actions of the Sendai Framework for Disaster Risk Reduction 2015–2030.

Suggested action by the Committee

The Committee is invited to:

- note that forest fire management, particularly fire risk reduction, is of crucial importance as climate change influences increased and more intense fire occurrence;
- consider strengthening the focus on Integrated Fire Management through country-level and regional strategies, normative studies and collaboration among countries;

¹ <https://www.fao.org/forestry/firemanagement/strategy/en/>

² <https://www.fao.org/forestry/news/99890/en/>

- **recommend FAO to:**
- continue to apply a systematic approach to the review and analysis of fires (in terms of drivers, occurrence, impacts and management) to support Members – upon their request – to identify relevant and effective risk reduction measures and strategies;
- support the development of fire management networks and continue strengthening of or engagement in existing fire management related networks;
- implement the Global Fire Management Platform with UNEP and in partnership with countries and relevant stakeholders to promote integrated fire management more broadly.

Queries on the substantive content of the document may be addressed to:

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I. Introduction

1. Wildfires are burning longer and more intensely and occurring in forests, peatlands and permafrost during fire seasons that are now extended in many parts of the world. Approximately 340–370 million ha of the Earth's land surface is burned by wildland fire (or vegetation fire) every year. About 20 percent of the total area burned occurs in forests, and 80 percent is in non-forest vegetation such as grasslands, savannas and shrublands³. The full damage and loss induced by wildfires – financial, social, and environmental – extends for days, weeks and even years afterwards.

2. FAO collaborated with the UN Environment Programme (UNEP) and GRID-Arendal on a 2022 report⁴ that succinctly outlines the impacts of wildfires across Earth's ecosystems. The report highlights how climate change and land-use change are projected to make wildfires more frequent and intense, with a global increase of extreme fires of up to 14 percent by 2030, 30 percent by 2050 and 50 percent by 2100.

3. Approximately 10 percent of all fires in the global landscape are ignited by natural causes, mainly lightning. The remaining 90 percent of fires are caused by humans. A human ignited-fire can become a wildfire⁵. Wildfires and climate change are mutually aggravating. Climate change increases the frequency and/or severity of weather conditions inducing fire risks: periods with a high fire risk due to a combination of winds, low humidity, high temperatures and low rainfall. The weather, drier and longer fire seasons are likely to result in more fires becoming wildfires. The huge quantities of greenhouse gases emitted into the atmosphere by wildfires further contribute to the climate crisis, spurring more warming, more drying, and more burning. Notably, not all fires are harmful and, in many ecosystems, fire performs a key role in recycling, regeneration and stimulating replenishment. The problem is the extreme wildfires that are on the rise.

4. Recently a wildfire in Pakistan has decimated forests critical for the livelihoods of local people in Balochistan. There have been severe damaging wildfires across the Western United States in each of the last three years, including unusually in late autumn, and wildfires increased in the Brazilian Amazon and Pantanal and in the neighbouring countries of Bolivia and Paraguay. In 2021, Nepal had one of its strongest wildfire seasons in recorded history with thousands of fires, and this has been repeated in 2022. Record-breaking temperatures in 2021 accompanied devastating fires in Greece, Italy, Turkey, and Lytton, British Columbia saw a Canadian temperature record of 49.6°C the day before a wildfire destroyed much of the community there on 30 June 2022.

5. There is a need to shift the focus of attention and investment on wildfires from reaction and response to prevention and preparedness. Extreme wildfires must be tackled before they begin through strategic fire management, detection, prevention, coordinated approaches, research and international cooperation.

II. Integrated Fire Management

6. FAO developed a Fire Management Strategy in 2019⁶ that sets out its approach to fire management in support of Members. This systematic approach to fire management seeks to understand the context, situation and actors involved, then aims to analyse options so as to reduce risk and identify capacity requirements. Importantly, past fire management activities and related efforts already undertaken by countries offer a good starting point for collaboration with relevant stakeholders. Through ongoing efforts, requirements for effective fire management can be identified, planned, strengthened and implemented for the medium to long-term. Integrated Fire Management (IFM)

³ van Lierop, P., Lindquist, E., Sathyapala, S. and Franceschini, G. 2015. Global forest area disturbance from fire, insect pests, diseases and severe weather events. *Forest Ecology and Management* 352 (2015) 78–88

⁴ <https://www.unep.org/resources/report/spreading-wildfire-rising-threat-extraordinary-landscape-fires>

⁵ FAO. 2006 Fire Management Global Assessment 2006. A thematic study prepared in the framework of the Forest Resource Assessment 2005. FAO Forestry Paper 151. Rome, 2006.

⁶ <https://www.fao.org/forestry/firemanagement/strategy/en/>

includes “all activities associated with the management of fire prone land, including the use of fire to meet land management goals and objectives.” This implies a holistic approach to addressing fire issues that takes into consideration biological, environmental, cultural, social, economic and political interactions. FAO champions integrated approaches to fire management by rebalancing emphasis on underlying causes and seeking long-term, sustainable solutions using five elements (also known as the 5Rs):

1. **Review:** analysis of the fire issue and identification of options for positive change
2. **Risk reduction:** prevention - focusing resources on the underlying causes of fires
3. **Readiness:** preparing to fight fires
4. **Response:** ensuring appropriate responses to unwanted damaging fires
5. **Recovery:** community welfare, repairing infrastructure and restoration of fire damaged landscapes

7. The FAO Fire Management Strategy and IFM continue to underpin FAO’s support and interaction with Members, fellow UN agencies, and international and regional organizations. FAO leverages its UN technical mandate through its six Regional Offices, six Regional Forestry Commissions and 130 Country Offices with partners such as UNEP, UN Office for Disaster Risk Reduction (UNDRR), European Commission Joint Research Centre (JRC), International Union of Forest Research Organizations (IUFRO), The Committee on Mediterranean Forestry Questions - *Silva Mediterranea*, the Center for People and Forests (RECOFTC), and the World Bank.

8. The Global Wildfire Information System (GWIS) country profiles supported by the European Commission in collaboration with FAO provide a starting point of fire information for all countries around the globe if not nationally available. These tools provide information on the geographic distribution of wildfires, burnt areas and emissions, and assess wildfire regimes and impacts at national and sub-national levels for all continents around the world.

9. Local people are the most knowledgeable about their landscape, its history, fire use in land uses, those who use fire and why it is used. The first R in IFM (Review) can help to analyse these factors in consultation with local people and relevant actors to engage and develop with them approaches that will sustain existing social values and perhaps create new values to strengthen community participation in the sustainable management of the landscape.

10. FAO Members have been responding systematically to addressing the wildfire problem. For example, Portugal has implemented a broad range of new measures that have reduced the average annual number of wildfires by more than half since 2017 and with no deaths. Timor-Leste is using forest monitoring tools to measure wildfires over the past 30 years to help identify the extent of forest fires and the location of wildfire hotspots. In Latin America and the Caribbean, the European Union (EU), FAO and other UN agencies have prepared a report on fires in the region and are collaborating through existing institutional arrangements to improve the analysis of wildfires and to reduce wildfire risk. FAO has also recently supported Cambodia, Myanmar, Pakistan, Sudan and Trinidad and Tobago in integrated fire management approaches. Despite these advances, IFM needs to be pushed to a new level of acceptance and implementation from country level to community application.

III. Global Fire Management Platform

11. At the XV World Forestry Congress (WFC), FAO launched the Assuring the Future of Forests through Integrated Risk Management (AFFIRM) Mechanism⁷. With funding from the Korea Forest Service, AFFIRM will be implemented by FAO in collaboration with the Asian Forest Cooperation Organization. It will be piloted in the Mekong region and will feed directly into a Global Fire Management Platform, co-led by FAO and UNEP.

⁷ <https://www.fao.org/forestry/news/99890/en/>

12. FAO and UNEP, currently collaborating under the UN Decade on Ecosystem Restoration and in other areas, jointly announced at the WFC Fire Management Forum⁸ that they will work together on a Global Fire Management Platform with the aim of strengthening countries' capacities to implement IFM to reduce the negative impacts of wildfires on livelihoods, landscapes and global climate.

13. The Global Fire Management platform will build on existing initiatives to make the global technical competence and integrated capacity of all partners available to FAO Members in a coherent, comprehensive and consistent way over time. It will serve as a system-of-systems where existing high quality data, information and tools can be accessed upon the request of countries to address the negative impacts of damaging wildfires through the following outputs:

- Output 1: Holistic and integrated fire management approaches applied at national and subnational levels;
- Output 2: Improved understanding of key elements of fire management among a wide variety of stakeholders;
- Output 3: Enhanced stakeholder participation in integrated fire management, including through Community Based Fire Management (CBFiM) that will be promoted and institutionalized;
- Output 4: Enhanced climate ambition through leveraging integrated fire management approaches in national climate policies and measures; and
- Output 5: Better international coordination, communication and increased international profile for integrated fire management.

14. The Global Fire Management Platform will become a reference point for fire history, fire data, information and knowledge; working with communities, agencies, countries and institutions to strengthen integrated fire management capacity at national level; and providing access to excellence in fire management globally.

15. The Global Fire Management Platform will also help facilitate information and knowledge sharing and routine connection between existing regional groups with expertise on fire management. These include the Commission Expert Group on Forest Fires (EGFF) of the EU; North American Fire Management Working Group; Latin American and Caribbean EGFF being supported by EU and implemented by the JRC; Asian Forest Cooperation Organization (AFoCO); Association of Southeast Asian Nations (ASEAN); the Global Fire Monitoring Center (GFMC); Southern Africa Fire Network (SAFNET); Near East Network on Wildlands Forest Fire (NENFIRE); *Silva Mediterranea* Working Group on Fire; and other FAO international partners.

16. In addition to supporting the goals of the Paris Agreement, the platform will help Members respond to priority actions of the Sendai Framework for Disaster Risk Reduction 2015–2030⁹, including to understand wildfire disaster risks; strengthen wildfire disaster risk governance to manage risk; invest in wildfire disaster risk reduction for resilience; and enhance wildfire disaster preparedness for effective response.

⁸ [Fire management forum – Wildfires beyond forests \(fao.org\)](https://www.fao.org/fire-management-forum)

⁹ <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>