



Food and Agriculture
Organization of the
United Nations



The Global Fire Management Hub (Fire Hub)

1st Technical Workshop – Summary Report

14 – 16 November 2023

FAO Headquarters

Rome, Italy

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Background

Landscape fire issues are complex with many inter-related socio-economic and environmental factors. Humans have used fire for millennia – a traditional tool of smallholders and Indigenous communities to manage lands. Today, fire is a widely-used tool by those in poverty to sustain food security. Natural and cultural fires are important to maintain the composition and functioning of fire-dependent or fire-adapted ecosystems, such as tropical and subtropical savannas or boreal forests. However, as a consequence of land-use change and climate change, natural and cultural fire regimes are changing rapidly. Extreme wildfires are on the rise, negatively affecting key ecosystems and sustainable development, and threatening communities' livelihoods and human security. Landscape fire emissions constitute a threat to human health and affect the atmosphere and climate.

Following the demand of international actors, the proposal of establishing a Global Fire Management Platform was first announced by the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme (UNEP) Senior Management at the XV World Forestry Congress and welcomed by FAO Members during the 26th session of the Committee on Forestry in 2022 (<https://www.fao.org/3/nk728en/nk728en.pdf>). With a changed official designation, the “Global Fire Management Hub” was officially launched at the 8th International Wildland Fire Conference in May 2023 (<https://www.fao.org/forestry/news/100706/en/>).

The aim of the Global Fire Management Hub – subsequently in brief referred to as “Fire Hub” – is to bring together key partners to assist countries in building capacities on integrated fire management to reduce the negative impacts of wildfires on livelihoods, landscapes and global climate stability while maintaining the important ecological and cultural role of fire, including the traditional use of fire for many landscape management purposes.



FAO's leadership of the Fire Hub is based on its development of an Integrated Fire Management (IFM) approach that helps to ensure that all fire activities are integrated into national policies and plans, are cross-sectoral, and involve diverse stakeholders. FAO champions this approach with five elements (the 5Rs): Review and Analysis; Risk Reduction, Readiness, Response, and Recovery – that help governments understand the causes and factors driving wildfires and seek long-term, sustainable solutions. The Fire Hub will build on this approach and support the application of principles laid down by guidelines and best practices developed by the community of scientists and practitioners over the last decades, including the principles of the Fire Management Voluntary Guidelines (FAO 2006) and

the Landscape Fire Governance Framework (presented at the 8th International Wildland Fire Conference in 2023).

The Federal Republic of Germany through the Federal Ministry of Food and Agriculture provided seed funding to FAO to convene a series of technical workshops and consultations between 2023 and 2024 to define the governance and operationalization of the Fire Hub. Results of the consultations will be presented at the 27th Session of the FAO Committee on Forestry (COFO) in July of 2024.

Thanks are extended to Prof. Dr. Johann Georg Goldammer for his crucial role in integrating the Global Fire Monitoring Center (GFMC) (<https://gfmc.online/>) and the Global Wildland Fire Network (GWFN) into the Fire Hub, enabling FAO and our partners to continue to lead, guide and strive for global improvement in fire management and the consequent reduction in fire-related damage and loss by incorporating the work of the past 25 years.

Summary of the Meeting Notes

Day 1 – Opening Session



The opening session provided input and setting up the context and the intentions of those present for the Fire Hub. Key points of the opening session:

- The Fire Hub will not create something completely new, but instead bring together existing capacities and networks, at local, regional and global level under one umbrella – the Fire Hub will be a **“one stop shop”**. It will promote the Integrated Fire Management (IFM) approach and will assist countries to incorporate IFM activities into national policies and programs. It

will serve as a first point of contact for the global sharing of fire-related data, knowledge and expertise.

- FAO, as the UN technical agency responsible for forestry, fire management and a leading contributor on climate change, is hosting a series of technical workshops to develop the Fire Hub in collaboration with other agencies from the global fire community, with recommendations being presented to the 27th Session of COFO in July 2024b.
- The Global Fire Monitoring Center (GFMC) and the Global Wildland Fire Network (GWFN) will be integrated into the Fire Hub, enabling FAO and partners to continue to lead, guide and strive for global improvement in fire management and the consequent reduction in fire-related damage and loss.
- UNEP is committed to work with FAO and other partners on the critical area of **wildfire risk assessment** and wildfire risk reduction. Key considerations are to foster the **science-policy interface**, improve our knowledge on the environmental, economic and social causes that enable large uncontrolled fires, and common understanding and approach for risk assessments and their integration into local or national climate information services. FAO and UNEP will work with countries to ensure a proper national **ownership of the data** and information that will be made available through the Fire Hub, making possible its use for policy and decision-making.
- The United Nations Office for Disaster Risk Reduction (UNDRR) addressed the need for **increased coordination** and informed action, interlinkage between risks and the need for effective early warning systems.
- GFMC presented the achievements of 25-years work of the center and stated that key is to share experiences both **from the bottom up and top down**, taking advantage of indigenous, traditional, local, and national expertise whilst also taking advantage of the wealth of data, information, and experience available at an international level.
- The Co-operation Group for the Prevention of, Protection Against, and Organisation of Relief in Major Natural and Technological Disasters (EUR-OPA) Secretariat will be available to contribute to the **definition and goals** of the Fire Hub.
- The Organization for Security and Co-operation in Europe (OSCE) supports the Fire Hub as a great international facility that will serve the international community.
- The Canadian Forest Service noted that the Fire Hub will be a powerful **community tool** and is strongly supported by Canada.
- The United States Agency for International Development (USAID) noted that **smoke** is an issue that is not given enough attention and that the humanitarian community must also be engaged, since they are the ones who fund and implement much of this work.
- The United States Department of Agriculture, Forest Service (USDA/FS) expressed support to the Fire Hub and congratulated FAO and UNEP for taking this step towards fire management.
- The Agency for Integrated Rural Fire Management (AGIF) from Portugal expressed interest to support the Fire Hub highlighting the connection between the Fire Hub and The Landscape Fire Governance Framework presented at the 8th International Wildland Fire Conference in Porto, Portugal, this year, which has coincidental goals and explicitly supports the creation of platforms such as the Fire Hub.
- Pau Costa Foundation addressed the importance for Fire Hub to lobby for funding and financing **initiatives to support exchanges and training opportunities**.

Day 1 – Overview Session – The Fire Hub’s Five Pillars and Roadmap



The first overview session provided an overview of the five interlinking pillars of the Fire Hub, which are still open to discussion and revision. These pillars will provide – but are not limited to – the following information, materials, and advisory support:

1) Knowledge sharing

- › Concepts, principles and methodologies related to integrated landscape fire management
- › Provision of readily available technical advice to enquiries by members, partners and other users of the Fire Hub
- › Repository of publications, guidelines and past and planned conferences, workshops consultations and training events around the world
- › Connecting with fire networks and fire management resources and actors in the regions

2) Capacity building

- › Provision of materials and methodologies for fire management training for national and regional actors
- › Mentoring programme for young fire management experts

3) Fire risk assessment and early warning

- › Methods and tools for a wildfire risk assessment, including loss and damage
- › Facilitation of access to and development of and training in fire danger rating and early warning of wildfires
- › Methods for assessment, monitoring and evaluation of losses and damages caused by fires and building up the existing data in different regions and countries where it is lacking.

4) Wildfire resilient communities

- › Bringing together communities to work with organizations, institutions, and governments in the development of informed and participatory approaches in integrated landscape fire management
- › Inclusion of indigenous and traditional knowledge
- › Promotion of Community Based Fire Management and gender equity, diversity, and inclusion

5) Policy support

- › Assistance to countries to undertake, inform and develop their integrated landscape fire management policies.

The roadmap for the establishment of a fully operational Fire Hub is as follows:

- In a first workshop (Rome, 14-16 December 2023) the **integration** of the GFMC into the Fire Hub and the establishment of a Fire Hub Governance was discussed.
- A second workshop, which will take place in March 2024, will discuss the integration of the **Global Wildland Fire Network** and associated regional networks and centers into the Fire Hub.
- A third workshop, which will take place in May 2024, will discuss the **operation and financing** of the Fire Hub, also following up with countries already collaborating or interested in collaborating/contributing.
- Finally, **Integrated Fire Management will be included in the official agenda of the 27th session of COFO (22-26 July 2024) and a side event on the Fire Hub will be organized.**

Main discussion points of the session:

- Importance of working towards a **common approach** to support countries in collecting, analysing, and publishing data related to **costs, damages and losses** due to wildfires.
- **Technology sharing, legal and financial** aspects should be included into the pillars.
- The GFMC Regional Fire Monitoring / Fire Management Resource Centers have all been established as academic institutions and as **independent centres** free from any political and state administrative influences. Bringing these networks into a more **formalized arrangement** is subject to discussion in the coming months.
- **Financing mechanisms** must be considered, including the **private sector**.
- The Fire Hub will offer a **pool of advisory services** – neutral with regard to politics and commercial interests – to which countries can refer for expert advice.

Day 1 – Overview Session – Monitoring, Early Warning and Fire Danger Rating Systems



The next overview session highlighted the fundamental aspects of Fire Danger Rating and Early Warning, introduced the Vegetation Fire and Smoke Pollution Warning Advisory and Assessment System (VFSP-WAS) and the Early Warning for all (EW4All) initiatives lead by WMO, the Global Wildfire Information System (GWIS) and the System for earth observations, data access, processing & analysis for land monitoring (SEPAL) Fire Module as examples of existing tools, approaches and systems. Important differences in terminology were set out:

- › **Fire danger:** the potential for fire to start, spread and do damage
- › **Fire danger rating:** the systematic assessment of fire danger

- › **Fire early warning:** the advanced knowledge of future fire danger conditions
- › **Fire monitoring:** the observation of active fires using remote sensing or airborne platforms
- › **Fire behaviour prediction:** scientific forecasting of how a fire is likely to spread and behave (e.g. through its intensity) in a given environment and under certain weather conditions

The World Meteorological Organization (WMO) shared several initiatives that are relevant to the Fire Hub:

- The **Global Atmosphere Watch Programme** attempts to understand different components of the atmosphere and its interactions with our systems; wildfires are one of the target needs identified with this project. It gathers **100 countries** together and attempts to **standardize the measurement** needed for early warning systems and to bridge gaps in regions where there is a lack of data.
- **Early Warning for All (EW4All)** is an initiative promoted by the UN Secretary General aiming at **accelerating efforts** to support Members and to work across different partners to **enhance collaboration** on multi-hazard early warning systems.
- The **WMO Vegetation Fire and Smoke Pollution Warning Advisory and Assessment System (VFSP-WAS)** will be based on WMO regional centres, providing advisory support to countries and to international organizations for protecting health and security of society against the adverse impacts of vegetation fire emissions.

Main discussion points of the session:

- Important to consider the role of **meteorological services** at a national level and how these could be involved in the Fire Hub, for example through the WMO.
- One of the areas coming into play is flash floods and mud flows after wildfire events. How can we use remote sensing to support the analysis, planning and management of **post-wildfire** environments?
- A vast majority of fires are set or caused by humans, so an aspect of early warning is the ability to identify those areas denoted with the highest fire risk due to human activity that must be protected from intentional or accidental ignitions by humans. A second dimension is the use of atmospheric transport modelling to set up **early warning of smoke pollution** and its impact.
- FAO's System for Earth Observation Data Access, Processing and Analysis for Land Monitoring (SEPAL) **Wildfire Capability** provides country practitioners with tools for wildfire risk, detection, triage, and assessment. It combines global data with customised, local data for locally relevant analyses, and puts the data and information in the hands of local people to determine what is important to them.

Day 2 – Technical Session – Discussion on Fire Hub Governance and Secretariat

On Day 2 of the workshop, a smaller group of participants began to discuss the operationalisation of the Fire Hub. The main discussion points of the session were as follows:

- Governance is not the same as management: management is about implementation and action. Governance is about **sharing responsibility and power** for designing and adopting decisions, agendas and objectives and the processes of implementing the management actions.

- Important to think about the **regional dimension** of the Fire Hub, language being one.
- As an example, the Global Forest Observations Initiative (GFOI) is working through **partners** who recognize the **shared common benefit**. All members have their own institutional and legal settings and activities but come together under the GFOI to collaborate and **improve their combined efforts**. It has two key features:
 - **Interactions and communications** – monthly meetings, annual plenary, communications program.
 - **Structured coordination and collaboration** – resources, expert meetings, guidance development, tools and expertise.
- The Fire Hub Secretariat will work as a **facilitator** of the collaboration between partners.
- Communication – important to acknowledge and involve all partners **without bias**.
- The Fire Hub would serve as a portal, **broker, and provider of advisory services** to respond to requests, such as consultation - to facilitate and moderate discussions on the development of national and regional fire management policies.
- The Early Warning pillar should contain broader aspects of technology applied to fire management.
- Existing guidelines addressing landscape fire management and governance and the mandate and modus operandi of the Fire Hub are considered to be dynamic and open.
- **Science is the foundation** of the Fire Hub. It has to have an important **scientific component** supporting **policy formulation and decision-making**.

Day 2 – Technical Session – Forest Assessment

The second technical session focused on FAO's Global Forest Resources Assessment (FRA), which provides essential information for understanding the extent of forest resources, their condition, management and uses, including information on the burned area extent. It is conducted every five years with the next assessment coming up in 2025. The data are collected using commonly agreed terms and definitions through a transparent, traceable reporting process and a well-established network of officially nominated national correspondents that covers 191 countries and territories. The FRA and the Fire Hub are expected to be connected, supporting each other with data and analysis. Main discussion points of the session:

- The development of a global landscape fire monitoring system that would rely on national systems, should be considered.
- Main issue to be addressed: Data for burned areas that are meaningful with regard to socio-economic, ecological and environmental impacts. This might become a critical role of the Fire Hub, e.g. in the context of **costs, damages and losses** and due to climate change.
- **Open data policy** being developed in FAO to work towards sharing National Forest Inventory data through FRA or other platforms.
- **Fuel assessment** – potential to have a fuel component added to the National Forest Inventory methods to include fire hazard.
- **Fuel modelling**, very important but for many reasons very challenging, especially when downscaled to the local operational level.
- **Thematic reports** could be done involving the **regional experts** as per the thematic reports of FRA 2000 and 2005.

- World Bank is currently developing a **geospatial platform** (including vegetation cover, fuel type and -loads and climate change projections).

Day 2 – Technical Session – IT Issues

A third technical session was held to discuss the IT aspects of integrating into the GFMC to the Fire Hub. This includes the ‘technical’ elements but also the IP, copyright, logo use and the protocols in the first instance of FAO in terms of hosting a website and the branding and style of it. Main discussion points of the session:

- There is a **priority** to get the Fire Hub website ready by COFO 2024.
- The creation of a website for the Fire Hub involves three aspects:
 1. **The functionality of the website:** Tabs, access to materials and the related links, links to sources and the software.
 2. **The look and branding of the website:** The Fire Hub will have multiple partners and many of them will require their logos and links to their organisations. The **GFOI website could be used as a model**.
 3. **The incorporation to the Fire Hub of the GFMC materials and functionality as appropriate:** Material to be moved in phases from GFMC website to Fire Hub website with links to GFMC website during the transition.

Day 3 – Technical Sessions – Integration of the GFMC to the Fire Hub

Two final technical sessions were held on the last day of the workshop to discuss the contents, links and process to integrate materials from the GFMC to the Fire Hub. Some examples were noted, and the possible approach to the website discussed, in particular, the incorporation to the Fire Hub of the GFMC materials and functionality as appropriate. Main discussion points of the sessions:

Governance

- **No significant obstacles** to establishing the Fire Hub – there are already several fully functioning structures that are happy to work together.
- Important to remember that the Fire Hub has a **wider perspective beyond forests, i.e. covering all types of natural and cultural landscapes**. The most important task is to **convene actors** from global, regional, and national levels to do what needs to be done.
- The structure of the Global Forest Observations Initiative (GFOI) and the Group on Earth Observations (GEO) hosted by WMO could be used as successful examples of governance.
- The Fire Hub can also support the **regional networks**, by promoting discussion on the role they play now and what role they can play in formal structures, also establishing how they can come together over time.

Pillars

- The five pillars are a way to **structure and guide our thoughts** but in practice, they are **interconnected**. Potential to label them as **strategic pillars** with different outcomes for each one. Each pillar could have a work plan and a coordinator.
- Important to establish **thematic working groups / task forces**, which could operate within one pillar or across several pillars, and to start considering **technical and legal issues** related to them.
- The inclusion of a **'data'** aspect into the pillars could be useful, for example, Pillar 3 could include this.

Next Steps

- Develop a proposal for the Fire Hub Governance – February 2024
- Set-up the Fire Hub website – second quarter of 2024
- Organize the Second Technical Workshop – March 2024
- Organize the Third Technical Workshop – May 2024
- Include integrated fire management in the main agenda of COFO – July 2024, and plan a side event on the Fire Hub.



Annex 1: Agenda

Global Fire Management Hub – 1st Workshop

Tuesday 14 – 16 November 2023

FAO Headquarters – Rome

Day 1 – 14 Nov: Opening and Overview Sessions

Time	Session agenda	Session info	Speaker / questions
10:00-12:00	Opening Session FAO – Opening remarks	Hybrid Austria (theatre setting) Moderation: Amy Duchelle	Speaker: Tiina Vähänen, Deputy Director, NFO – opening remarks
	BMEL – Opening remarks		Speaker: BMEL – Astrid Epp, Permanent Representation of the Federal Republic of Germany to the UN Organizations in Rome - opening remarks - opening remarks
	UNEP – Opening remarks		Speaker: UNEP – Francesco Gaetani, UNEP Science-Policy regional coordinator – opening remarks – opening remarks
	UNDRR – Opening remarks		Speaker: UNDRR – Sandra Amlang, Head of the Interagency Cooperation Unit, UNDRR – opening remarks
	FAO – Global Fire Management Hub		Speaker: Lara Steil, Fire Management Officer
	Global Fire Monitoring Center (GFMC)		Speaker: Johann Georg Goldammer, GFMC Director
			Question: How could your country / organization contribute to the Fire Hub? How would your country benefit from the hub?

12:00-13:30	Lunch Break			
13:30-15:00	Overview Session: Fire Hub's Five Pillars and Roadmap Germany, US, Canada, ROK, Portugal, FAO, GFMC, UNEP, UNDRR, JRC, WMO	Hybrid EST Reference Room on the 8 th floor Moderation: Bill De Groot	Presentation: Fire pillars and roadmap Lara Steil, Forestry Officer (Integrated Fire Management), Forestry Division - FAO	Questions to guide discussions: 1. Is there a fire aspect not covered by these 5 pillars? 2. What are the fire aspects your country/organisation would like to see prioritised on the Fire Hub? 3. What do you expect from the fire hub? 4. Fire Hub / Framework
15:30-16:00	Coffee Break			
16:00-17:30	Overview Session: Fire danger rating, early warning and monitoring systems FAO, GFMC, UNEP, UNDRR, JRC, WMO (tbc)	Hybrid EST Reference Room on the 8 th floor Tony Owusu support for audiovisual Moderation: Peter Moore	Presentations: 1. EWS and FDRS – Bill De Groot 2. Vegetation Fire and Smoke Pollution Warning Advisory and Assessment System (VFSP-WAS) Sara Basart, PhD, Scientific Officer, Global Atmosphere Watch (GAW), World Meteorological Organization (WMO) 3. Early Warning for all (EW4All) – Erica Allis, Senior Programme Manager at World Meteorological Organization (WMO) 4. Global Wildfire Information System GWIS – Jesus San-Miguel-Ayanz Senior Researcher, European Commission / JRC 5. System for earth observations, data access, processing & analysis for land monitoring (Sepal) – Fire Module – Erik Lindquist, PhD, Forestry Officer, Forestry Division – FAO	Questions to guide discussions: 1. How can we connect these initiatives through the Fire Hub? 2. Training on EWS/FDRS – inclusion of Sepal and GWIS 3. Should we try here what type of access will be given by the hub to different platforms? Or is the idea to integrate the data themselves to be directly accessible through the hub? Maybe design in this sense can be discussed.

Day 2 – 15 Nov: Technical Sessions NFO Meeting Room D440

8:30-10:00	Technical Session: Discussion on Fire Hub Governance and Secretariat and Roadmap FAO, GFMC, UNEP	On-site NFO Meeting Room On-site	Presentation: Governance – Dubravka Bojic, Programme Officer DDCG Global Forest Observations Initiative structure – Tom Harvey, Manager GFOI Office	Questions/points to guide discussions: 1. Fire Hub governance structure 2. Sub-groups 3. Technical groups 4. Fire Hub Advisory Board
10:00-10:30	Coffee Break	Moderation: Peter Moore		
10:30-12:30	Technical Session: Discussion on Fire Hub Roadmap, Governance and Secretariat FAO, GFMC, UNEP			
12:00-13:30	Lunch Break			
13:30-15:30	Technical Session: Forest Assessment FAO, GFMC, UNEP, JRC	NFO Meeting Room Hybrid Moderation: Bill De Groot	FRA (Forest Resources Assessment) Presentation Anssi Pekkariinen, Senior Forestry Officer Forestry Division - FAO	Questions to guide discussions: 1. How can we connect FRA and related initiatives through the Fire Hub? 2. Here, we could potentially discuss the possible differences that may exist between country-reported data and RS data (is FRA collecting both in terms of fires?)
15:30-16:00	Coffee Break			
16:00-17:30	Technical Session: IT issues FAO, GFMC, UNEP	NFO Meeting Room Hybrid Moderation: Peter Moore		Questions to guide discussions: 1. What needs to be observed for the integration? 2. consider both technical needs and copyright/logo issues

Day 3 – 16 Nov – Technical Sessions NFO Meeting Room (D440)

8:30-10:00	Technical Session: Integration of the Global Fire Monitoring Center (GFMC), Global Wildland Fire Network (GWFN) and Regional Fire Monitoring / Fire Management Resource Centers (RFMCs) to the Global Fire Management Hub FAO, GFMC, UNEP	NFO Meeting Room On-site Moderation: Lara Steil	Questions to guide discussions: 1. What are the pillars to be fed by GFMC? 2. Will the GFMC website be online ‘forever’? 3. Which is the best way to acknowledge GFMC? 4. What will be the role of GFMC in the Fire Hub? 5. Are there any constraints for the transfer?
10:00-10:30	Coffee Break		
10:30-12:00	Technical Session: Integration of the GFMC, GWFN and RFMCs into the Fire Hub FAO, GFMC, UNEP		

Annex 2: List of Participants

Last Name	First Name	Country / Organization
Abreu	Gerónimo	Republica Dominicana, Ministerio de Medio Ambiente y Recursos Naturales
Albayrak	Arif Rustem	US / NASA / UMBC
Alencar	Ane	IPAM
Allis	Erica	WMO
Amissah	Lucy	CSIR-Forestry Research Institute of Ghana / Regional Western Africa Fire Management Resource Center (RWA-FMRC)
Amlang	Sandra	UNDRR
Basart	Sara	Global Atmosphere Watch (GAW), World Meteorological Organization (WMO)
Bilbao	Bibiana	United Kingdom / FAO
Bojic,	Dubravka	Food and Agriculture Organization of the United Nations
Brady	Michael	Indonesia / CIFOR-ICRAF
Brunet-Navarro	Pau	Spain / CTFC
Buttanri	Esra	Organization for Security and Co-operation in Europe (OSCE)
Byambasuren	Oyunsanaa	Mongolia / The National Forest Agency and Fire Management Resource Center – Central Asia Region (FMRC-CAR)
Chapman	Robb	United States / U.S. Agency for International Development
Charlton	Val	South Africa Landworks
Cordey	Pierre-André	Switzerland / Swiss Agency for Development and Cooperation
Crawhall	Nigel	UNESCO
de Groot	Bill	Food and Agriculture Organization of the United Nations
Dehnisch	Scott	USA / US Agency for International Development
Duchelle	Amy	Food and Agriculture Organization of the United Nations
Epp	Astrid	Permanent Representation of the Federal Republic of Germany to the UN Organizations in Rome
Gaetani	Francesco	UNEP

Gallo Granizo	Carolina	Consultant Forest and Landscape Restoration Mechanism, NFO, FAO
Goldammer	Johann Georg	GFMC
Grey	Sebastian	World Meteorological Organization
Hanes	Chelene	Canada / Natural Resources Canada
Harvey	Tom	GFOI
Hernández Paredes	Elena	Spain / Forest Fire Service, Ministry for the Ecological Transition and Demographic Challenge.
Jacot Des Combes	Helene	International Science Council
Juszczak	Tomasz	UNFF
Kalas	Patrick	Food and Agriculture Organization of the United Nations
Khim	Wiryia	Food and Agriculture Organization of the United Nations
Kukharava	Maryia	Food and Agriculture Organization of the United Nations
Lindquist	Erik	Food and Agriculture Organization of the United Nations
Maniatis	Danae	Senior consultant / UNEP
Manta Nolasco	María Isabel	Universidad Nacional Agraria La Molina
Mayhew	Liz	US Forest Service International Programs, Latin America, Caribbean and Canada team
Meyer	Kristin	UNDRR
Monagle	Catherine	International Savanna Fire Management Initiative
Monteiro	Mario	AGIF
Moore	Peter	Food and Agriculture Organization of the United Nations
Nikolov	Nikola	North Macedonia / Regional Fire Monitoring Center (RFMC)
Nuutinen	Maria	Food and Agriculture Organization of the United Nations
Oliveira	Tiago	AGIF
Pagliaro	Chloe	Food and Agriculture Organization of the United Nations
Pekkarinen	Anssi	Food and Agriculture Organization of the United Nations
Pinto	Carlos	Fundación Amigos de la Naturaleza
Pöschl	Ulrich	Max Planck Institute for Chemistry, Germany

Pronto	Lindon	European Forest Institute
Purnomo	Herry	Indonesia / CIFOR-ICRAF
Rakoto Ratsimba	Harifidy	Madagascar / Regional Eastern Africa Fire Management Resource Center (REA-FMRC)
Ramos Rodríguez	Marcos Pedro	Ecuador / Universidad Estatal del Sur de Manabí
Rejalaga	Larissa	Paraguay Universidad Nacional de Asunción programas Paraguay sin llamas
Rietbergen	Simon	Food and Agriculture Organization of the United Nations
Sachs	Gordy	International Liaison Committee
Saharjo	Bambang Hero	Indonesia / IPB University and Regional Fire Management Resource Center – South East Asia (FMRC-SEA)
Sanhueza	Patricio	Chile
San-Miguel-Ayanz	Jesús	European Commission / JRC
Sathyapala	Shiroma	Food and Agriculture Organization of the United Nations
Segura	Daniel	Ministerio Del Ambiente, Agua Y Transición Ecológica de Ecuador
Senra de Oliveira	Mariana	Brazil – Prevfogo / Ibama
Shahria	Sachin	USA / The World Bank Group
Sharma	Sundar	Regional South Asia Wildland Fire Network
Shields	Brett	Food and Agriculture Organization of the United Nations
Singer	Benjamin	Green Climate Fund
Smith	Marek	The Nature Conservancy
Steil	Lara	Food and Agriculture Organization of the United Nations
Taylor	Carmen	Canada / Natural Resources Canada
Tchana	Elisee	France
Tornorsam	Marina	Thailand/RECOFTC
Uygun	Cuma	Türkiye
Vacik	Harald	Austria / University of Natural Resources and Life Sciences – Sub-Regional Euro Alpine Wildfire Network
Vähänen	Tiina	Food and Agriculture Organization of the United Nations

Vendrell	Jordi	Pau Costa Foundation
Verbisky	Richard	Natural Resources Canada / Canadian Forest Service / International Model Forest Network
Vuorinen	Petteri	Food and Agriculture Organization of the United Nations
Zibtsev	Sergiy	Regional Eastern Europe Fire Monitoring Center (REEFMC)
Zyman	Krzysztof	EUR-OPA European and Mediterranean Major Hazards Agreement of the Council of Europe

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