



Global Session

Friday, 01 November 2019

Technical Report

World Meteorological Organization (WMO)

World Health Organization (WHO)

Pan-American Health Organization (PAHO)

International Biomass Burning Initiative (IBBI)

Global Fire Monitoring Center (GFMC)

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World Meteorological Organization (WMO)



- Highlight the impact of emissions from fires burning across the landscapes of the world on human health and security as well as on the atmosphere and climate.
- Wildfires are affecting extended areas of fire-adapted and fire-sensitive forests, resulting in damages on biodiversity, reduction of terrestrial carbon sequestration and
- overall loss of stability of fire-affected sites against secondary extreme weather or climate variability, such as extreme rainfalls or extended droughts.
- Increasing public perception reveals an increasing sensitivity and vulnerability of people around the world.
- This has prompted the undersigned organizations to highlight the issue of landscape fire smoke pollution at global level.



Vegetation Fire and Smoke Pollution (WMO/IBBI)

- Arising from the keen interest of WMO Members in several impacted regions, the concept note provides guidance for addressing the issues of vegetation fire and smoke pollution.
- Proposes the establishment of a Vegetation Fire and Smoke Pollution Warning and Advisory System (VFSP-WAS) and to support the potential foundation of regional centers on the topic.
- First regional VFSP-WAS R&D centers are realising for SE Asia (MSS with BMKG, etc.) & for North America (ECCC, etc.) as prototypes.
- Suggestions for other Regional VFSP-WAS Centers are welcome!
- «Last mile»: to reach potential users on time and in proper form (Impact based prediction), link with GWIS, GFMC, fire management centers.

GAW Report No. 235

Available on:

https://library.wmo.int/opac/index.php?lvl=notice_display&id=20244

Vegetation Fire and Smoke Pollution
Warning and Advisory System
(VFSP-WAS): Concept Note and
Expert Recommendations

WEATHER CLIMATE WATER



Overview of suggested WMO Vegetation Fire and Smoke Pollution Warning and Advisory System



Interested countries are welcome !





Interdisciplinary Biomass Burning Initiative (IBBI)



IBBI was founded in 2012, by

- **WMO GAW** (World Meteorological Organization, Global Atmosphere Watch Program)
- **iLEAPS** (Integrated Land Ecosystem-Atmosphere Processes Study),
- **IGAC** (International Global Atmospheric Chemistry).

IBBI activities address five key topics:

- Fire products (burned area, fire radiative power, emission factors, etc.);
- Fire models and the representation of fires within models at different spatial scales;
- Observations of fires, smoke and atmospheric composition;
- The influence of fires on air quality; and
- The link between fires and climate change

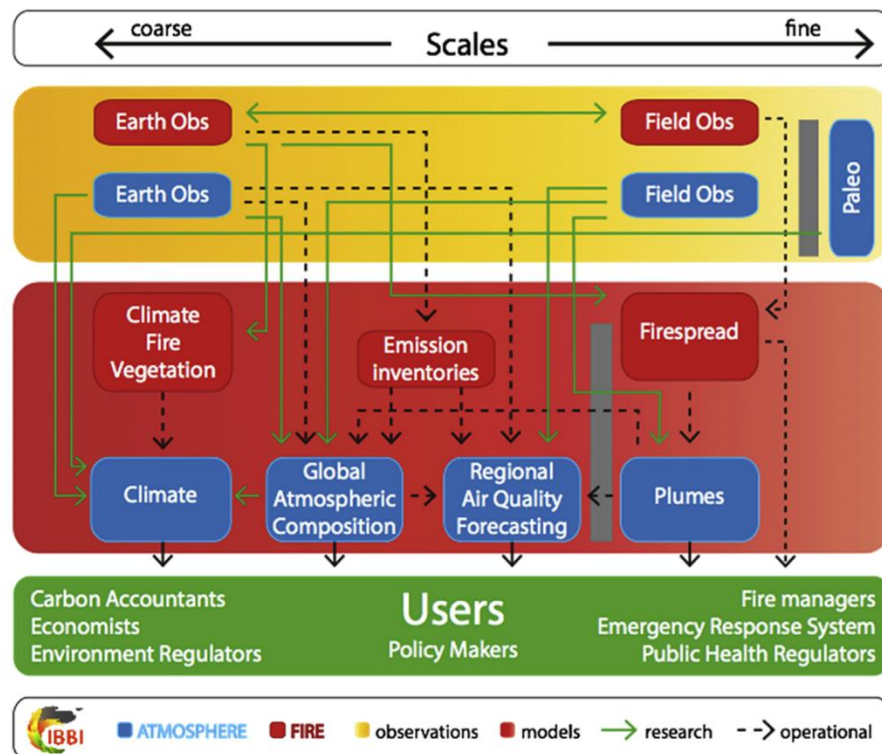


Fig. 1. Biomass burning data processing pathways and two major blocks (grey boxes) identified during the 3rd IBBI workshop.



The Health Impacts (PAHO/WHO)

- Landscape fires can represent a threat to human health and security.
- Smoke pollution from landscape fires is associated with increased mortality, cardiac events, and a range of respiratory effects, including asthma attacks.
- Uncontrolled fires can evolve into a more complex emergency, potentially requiring voluntary or planned population movement (evacuation)
- Vulnerable population to such effects includes local indigenous and tribal communities, children and the elderly.



<http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/news/news/2018/7/as-wildfires-threaten-europe,-who-underscores-health-risks>



The Response (PAHO/WHO)

- Strengthening planning, technological and communication tools is critical to reduce the vulnerability of people and landscapes to wildfires. Special attention should be given to smoke emissions.
- PAHO/WHO works with countries in the American aiming a two-fold objective: 1) strengthen local capacities on air quality management and public health protection, and 2) supports countries response to emergency due to wildfires.





The Proposals (PAHO/WHO)

- Review and update the Health Guidelines for Vegetation Fire Events (1999).
- Support health surveillance of air pollution and monitoring network.
- Allocate funding to increase the capacities of the health sector for monitoring health risks, diagnosing and treating people affected by wildfires.
- Support knowledge sharing of air pollution and health.





The Proposals (WMO/IBBI)

- The issue of vegetation fires and their societal impacts is considered of great importance in WMO.
- WMO together with a number of partners proposes the establishment of the Vegetation Fire and Smoke Pollution Warning and Advisory System (VFSP-WAS) and to support the potential foundation of regional centers on the topic.
- Public health implications of wildfires are major and commonly overseen. Protecting indigenous and tribal peoples from the effects of air pollution should be considering into the Integrated Fire Management.
- More coordination between the involved UN Agencies and other international, regional and national organization are urgently needed.
- The 18th World Meteorological Congress (2019) endorsed an ambitious plan to advance the integration of weather, climate, water and environmental applications and services for health, and work closely with WHO to prevent health risks.

c/o Jean-Baptiste Filippi

May 11 to 16, 2020

Numerical Wildfire 2020

Leveraging computing facilities and new observation systems to enhance our ability to estimate and forecast wildfire.

Submission: 1000 words 30/11/2019

Acceptance: 01/02/2020

Confirmed Speakers :

Craig Clements, San- José Fire Weather lab.

Albert Simeoni, WPI

Mark Finney, USDA

Adam Kochansky, University of Utah

Arnaud Trouvé, University of Maryland

Michele Salis, NRC CNR-IBE, Sassari, Italy

Alexander Filkov, University of Melbourne

Marc Castellnou, Pau Costa foundation

William (Ruddy) Mell, U.S. Forest Service



Venue, locked by the beach in Corsica



<http://tinyurl.com/FIRECARGESE2020>