

# Global Fire Challenges in a Warming World

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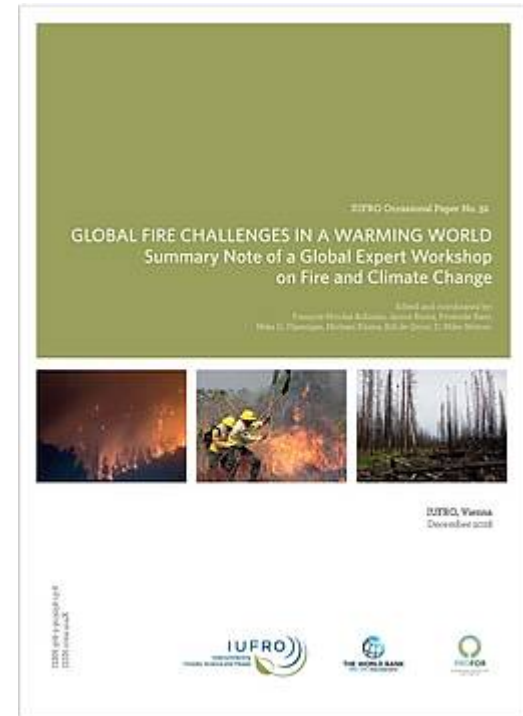
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# 1. Introduction

- **Global expert workshop (Summer 2018): Leading scientists and experts on fire and climate change:**
  - **Synthesis** of existing scientific information
  - **Published** occasional paper “Global Fire Challenges in a Warming World”
  - **Foundation** for an international consortium (**IUFRO Fire\$ Task Force**)

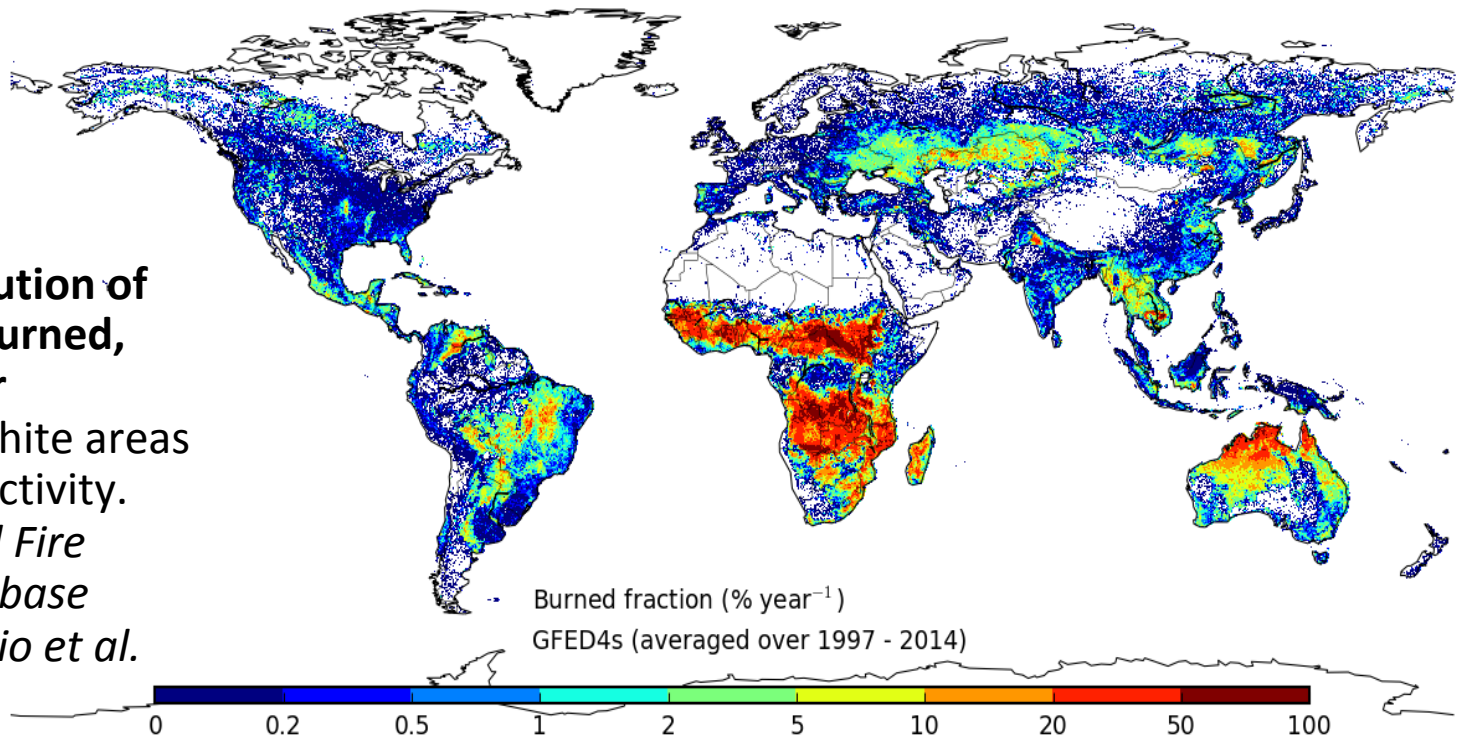


<https://www.iufro.org/news/article/2019/01/23/occasional-paper-32-global-fire-challenges-in-a-warming-world/>

*"The role of the scientist is not to decide between possibilities, but to determine what the possibilities are" (Lord May)*

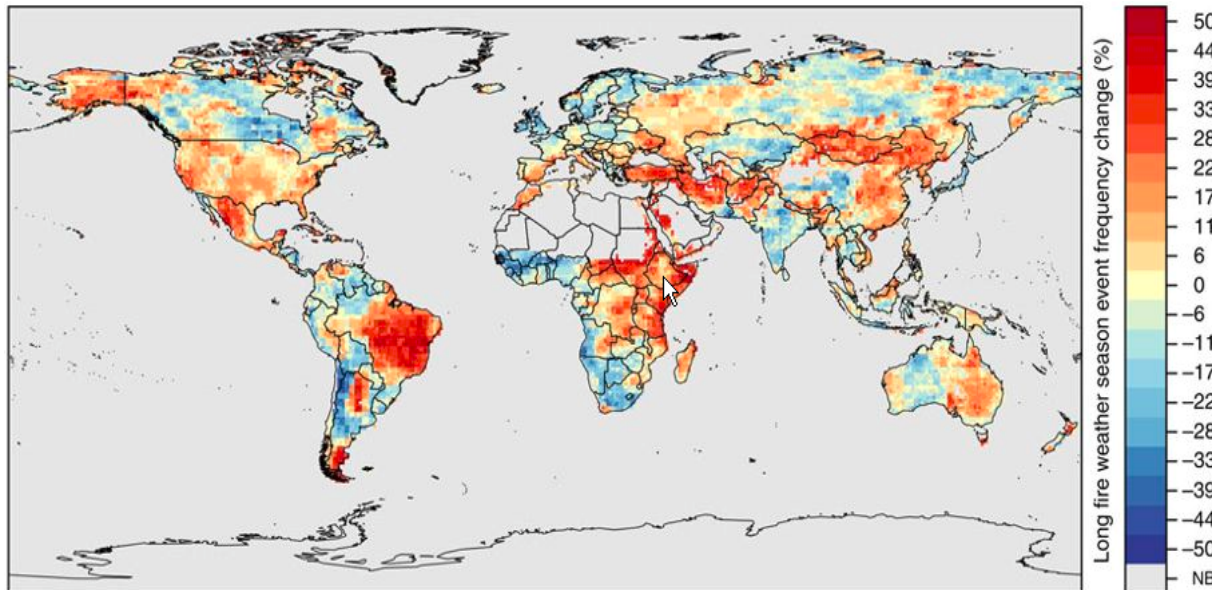
## 2. Fires at Global and Regional Levels

- Fire is essential to many ecosystems and societies
- Climate change and planetary changes contribute to increased occurrence of extreme events



# 3. Climate Change and Future Fire Regimes

- Societies, economies, and ecosystems are vulnerable to disaster situations
- Changes in location, intensity, severity and frequency of fires will likely have immense costs



**Global changes in the frequency of long fire weather seasons over 1979–2013 due to climate. Source: Jolly et al. 2016**

## 4. Impacts of Future Fire Regimes on Societies

- Potential for catastrophic fires already exists with or without climate change
- Region specific approaches and population preparedness and engagement are required to help us live better with fire
- Fire is a useful and necessary tool to protect people and nature

# 5. Addressing the Challenges of Future Fire Regimes

- Integrated fire management is needed and must be based on knowledge of natural and cultural roles of fire
- Engagement with stakeholders via multiple tiers of governance is necessary to maintain fire resilient landscapes
- Collecting and sharing globally harmonised fire data will enhance understanding and requires investment
- Economic drivers have seldom been addressed and often limited to the GDP

# Action: IUFRO Fire\$ Task Force



- International Union of Forest Research Organizations (IUFRO) is the only network with a global scope for cooperation in forest science
- Unites 15,000-20,000 scientists in about 650 Member Organizations in 127 countries
- IUFRO is open to all individuals and organizations dedicated to research related to forests and forest products
- IUFRO Task Forces support interdisciplinary cooperation and knowledge sharing



## 6. IUFRO Fire\$ Task Force (2019-2021): economic drivers of global fire activity

### Aim

To examine the **role of economic dynamics** (e.g. international trade, subsidization) and values (e.g. ecosystem services, marketable goods) influencing the occurrence (or absence) of **wildland fires** across the planet as it warms.





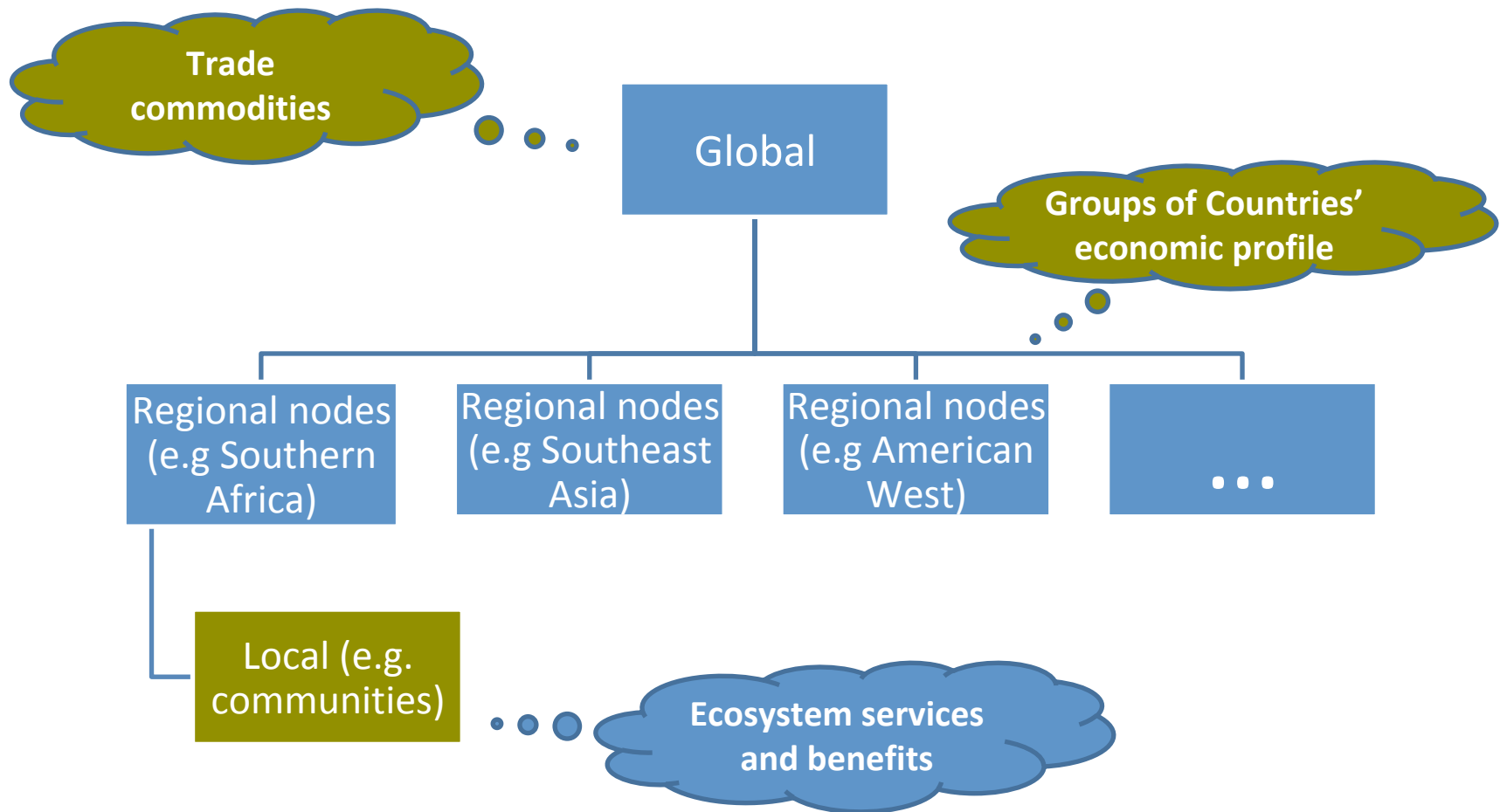
# Methodology

Mix of outreach-oriented (OOAs) and research-oriented (ROAs) activities:

- OOAs will identify questions with stakeholders to promote long-term scientific collaboration and management actions
- ROAs will address larger-scale questions using economic analysis techniques, such as supply chain modeling, crossing publicly-available datasets of fire activity and economic indicators



# 7. Structure of the IUFRO Fire\$ TF



# 8. Expected outcomes

- Support IUFRO's strategy and institutional goals
  - ➔ and other global and continental programs (e.g. Bonn Challenge, REDD+ and SDGs)
- Solid network of professionals (scientists, managers, and practitioners)
- State-of-knowledge report ➔ inputs to int'l policy processes and decision-making
- Special issue in a scientific journal
- Initiate the creation of int'l databases

**Thank you!**