DRAFT IN DEVELOPMENT

CBD COP16 - Official Side Event Concept Note - Biodiversity and Wildfire

Title: Global challenges to sustaining biodiversity in an era of changing fire regimes
CBD Topics: Capacity-building, Indigenous/local communities, Technical cooperation
GBF Targets: T08 (Minimize Impacts of Climate Change on Biodiversity); T20: (Strengthen Capacity-Building, Technology Transfer, and Scientific & Technical Cooperation)

Background

Wildfire is an essential ecological process in many ecosystems and has played a prominent role in the evolution of biodiversity. In response to rapid global change, however, extreme wildfires are increasing and natural fire regimes are being altered, posing serious threats to biodiversity driving large-scale species extinctions, and compounding climate change impacts: for instance, Canada's 2023 wildfires released nearly 4 times more carbon than global aviation (WRI).

Given increasingly devastating impacts of wildfires on human communities, effective fire management strategies are urgently needed to protect people; yet, many fire management approaches can also cause substantial ecological harm and create conflicts with biodiversity conservation. Thus, there is a critical need to identify solutions that can improve human safety while also preserving biodiversity. Identifying these solutions is highly complex given that wildfires are changing differently in different regions for different reasons.

Global objectives for biodiversity conservation cannot be met without accounting for the critical role of wildfire in shaping ecosystem functioning. Strategies and support are needed to (1) advance interdisciplinary scientific research and innovation; (2) foster collaborative collection of open-source, comprehensive, geographically relevant, and accurate data; (3) ensure evidence-based decision-making through communication between scientists and practitioners; (4) understand and account for geographical diversity in social and ecological systems; and (5) provide widespread education for and collaboration across a range of stakeholders.

Event Objectives

a. Gathering worldviews on changing fire regimes (illustrated with case studies)
    a. What is the natural role of fire in each region's ecosystems?
    b. How is fire changing and why?
    c. What are the prominent human and ecological impacts?
b. Identifying means to grow international resources for addressing extreme wildfires and changing fire regimes
    a. How is fire being managed, and by whom?
    b. What are the biggest gaps in science, management strategy, implementation?
    c. …
    d. What resources already exist?
    e. What resources are most needed? (e.g., data, science, education, management)
    f. Strategies to develop adaptive and collaborative education and data platform
c. Coordination, communication and resources (e.g. CBI-led Wildfire Academy/ Collective)

d. Contribute inputs to World Fire Congress in 2026

Proposed Participants (TBC)
- Co-Hosts: Conservation Biology Institute, Ecological and Forestry Applications Research Centre (CREAF)
- Speakers

- Dra. Alexandra D. Syphard, Conservation Biology Institute, US
- Dr. Stijn Erik R. Hantson, Associate Professor, Universidad del Rosario, Faculty of Natural Sciences, Colombia
- TBC, Bomberos de Cali
- Sam Bennetts, Regen Network (biodiversity credit market)
- Belén Paez, Pachama Foundation (Achuar nation)
- …
- Dra. Iokiñe Rodríguez Fernandez, University of East Anglia, UK (remote)
- Dr. Mauricio Aguilar Garavito, Pontifical Xavierian University, Colombia (remote)
- …
- Dra. Ghisliane Echeverry Prieto, Director, Institute of Hydrology, Meteorology and Environmental Studies, Colombia (TBC)
- Malcolm Wilson (Papua, Indonesia) (remote, TBC)
- Dr. Alejandro Miranda Cerpa, Dep. de Ciencias Forestales, Universidad de La Frontera, Chile (by video)
- Dr. David Bowman, Fire Centre Research Hub (by video)
- Mr. Anacleto Peña, Union of Indigenous Communities of Lomerío, Bolivia (invited)
- *Dr. Lluís Brotons, Ecological and Forestry Applications Research Centre, Spain*
- *Dr. Mauro González, Universidad Austral de Chile, Instituto de Conservación Biodiversidad y Territorio (remote)*

Preliminary Agenda (90 minute format)

10 minutes Opening remarks and overview of global changes in natural fire regimes
Moderator: Alexandra Syphard, Conservation Biology Institute
Dr. David Bowman, Fire Centre Research Hub (by video)

10 minutes Framing Topic 1: Impact of extreme fire events on native forests
Dr. Stijn Erik R. Hantson, Associate Professor, Universidad del Rosario, Colombia

10 minutes Framing Topic 2: TBD
Dra. Ghisliane Echeverry Prieto, Director, Institute of Hydrology, Meteorology and Environmental Studies, Colombia (TBC)

40 minutes Panel Discussion: Global challenges to sustaining biodiversity in a new era of fire
- *Dra. Iokiñe Rodríguez Fernández, University of East Anglia, UK (remote)*

- *Dr. Mauro González, Universidad Austral de Chile, Instituto de Conservación Biodiversidad y Territorio (remote)*
- *Dr. Mauricio Aguilar Garavito, Pontifical Xavierian University, Colombia (remote)*
- *Mr. Anacleto Peña, Union of Indigenous Communities of Lomerío*

15 min Discussion and closing
Facilitated by moderator

Discussion Questions

Area 1: Science & research needs
How do we tackle biodiversity conservation given extreme wildfire and altered fire regimes?

a. What is the natural role of fire in each region's ecosystems?
b. How is fire changing and why?
c. What are the prominent human and ecological impacts?

Area 2: Management & policy and action
What management and policy strategies do we need to address biodiversity conservation given extreme wildfire and altered fire regimes?

a. How is fire being managed, and by whom?
b. What are the biggest gaps in science, management strategy, implementation?

Area 3: Collaboration, education and action
How can a new international wildfire collective/academy support member countries in implementing the GBF?

a. What resources already exist?
b. What resources are most needed? (e.g., data, science, education, management)
c. Strategies to develop adaptive and collaborative education and data platform