

8TH INTERNATIONAL WILDLAND FIRE CONFERENCE

GOVERNANCE PRINCIPLES:

Towards an International
Framework

Porto - Portugal | **May 16-19th**, 2023

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www.wildfire2023.pt

LOCAL ORGANIZER



INTERNATIONAL LIAISON COMMITTEE FOR THE IWFC



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**INTERNATIONAL
WILDLAND FIRE
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“Inclusive Community Engagement in Disaster Preparedness and Response focusing on Wildfires and the generated Smoke: Best Practices and Lessons Learned”

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Sofia Karma, Milt Statheropoulos, Ioannis Boukis, Alex Tsakiridis



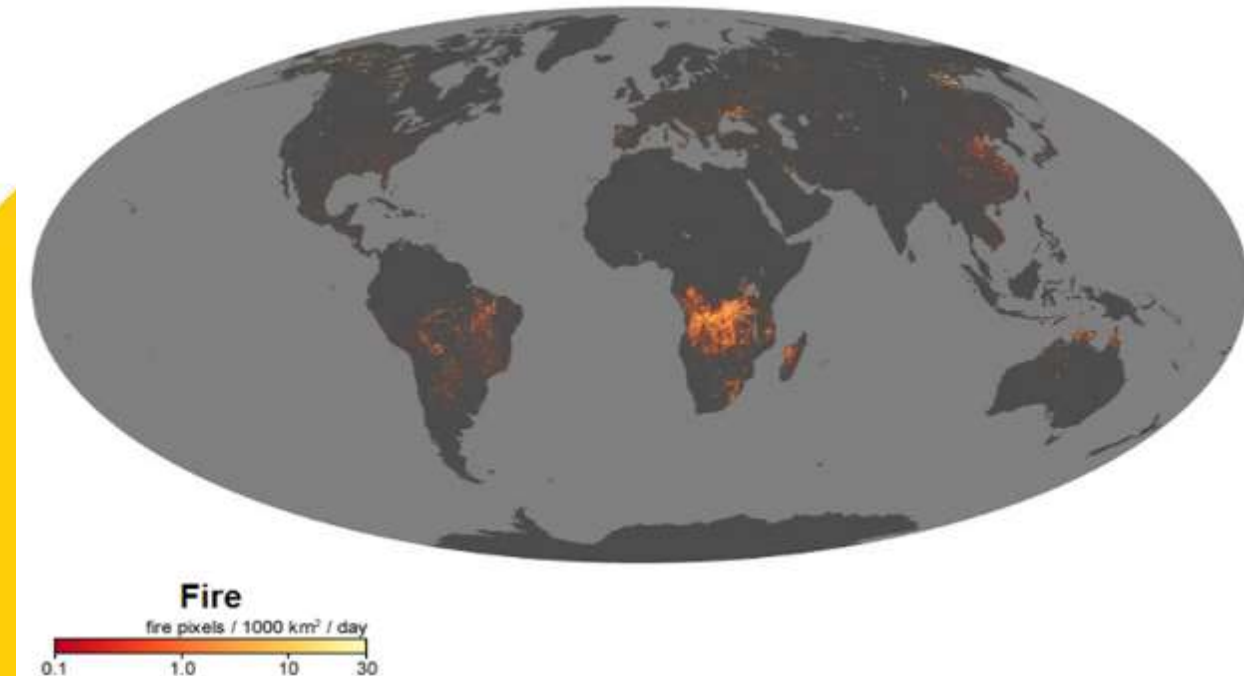
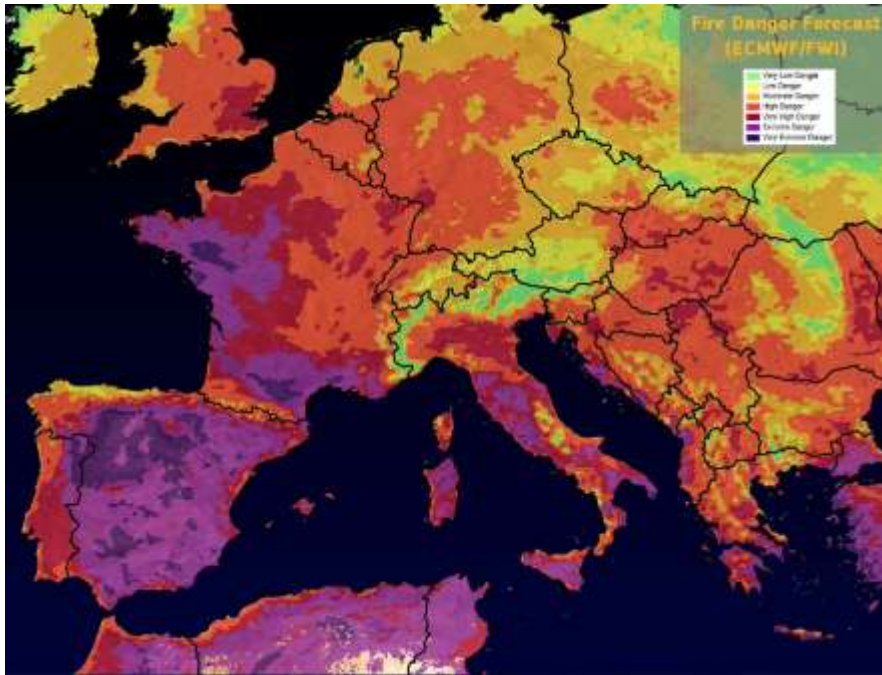
1. European Center for Forest Fires, CoE
EUR-OPA Major Hazards Agreement

2. National Technical University
of Athens

3. Ministry for Climate Crisis and
Civil Protection, Greece

• Global Warming & Extreme Weather Events

Prolonged Droughts & Heatwaves affect Wildfires worldwide



Western Europe suffered extreme heat waves in July 2022.
Image: World Metrological Organization (WMO)

July 2022- NASA Earth Observations (NEO): [Fire](#)

- **Cross-regional or Cross-border transfer of Wildfire Smoke**



Copernicus' Sentinel 3 satellite image shows the smoke rising from the wildfire in southwestern France, near Bordeaux, on 10 August 2022. Credit: European Union

• What are the Risks of Exposure to Wildfire Smoke?

Smoke = Complex chemical mixture

- Fine and Ultrafine particles (PM_{2.5} , PM₁, PM_{0.1})
- Carbon monoxide (CO)
- Formaldehyde/Acrolein
- Benzene
- Polycyclic Aromatic Compounds (Benzo-pyrene)
- Dioxins or other highly toxic compounds

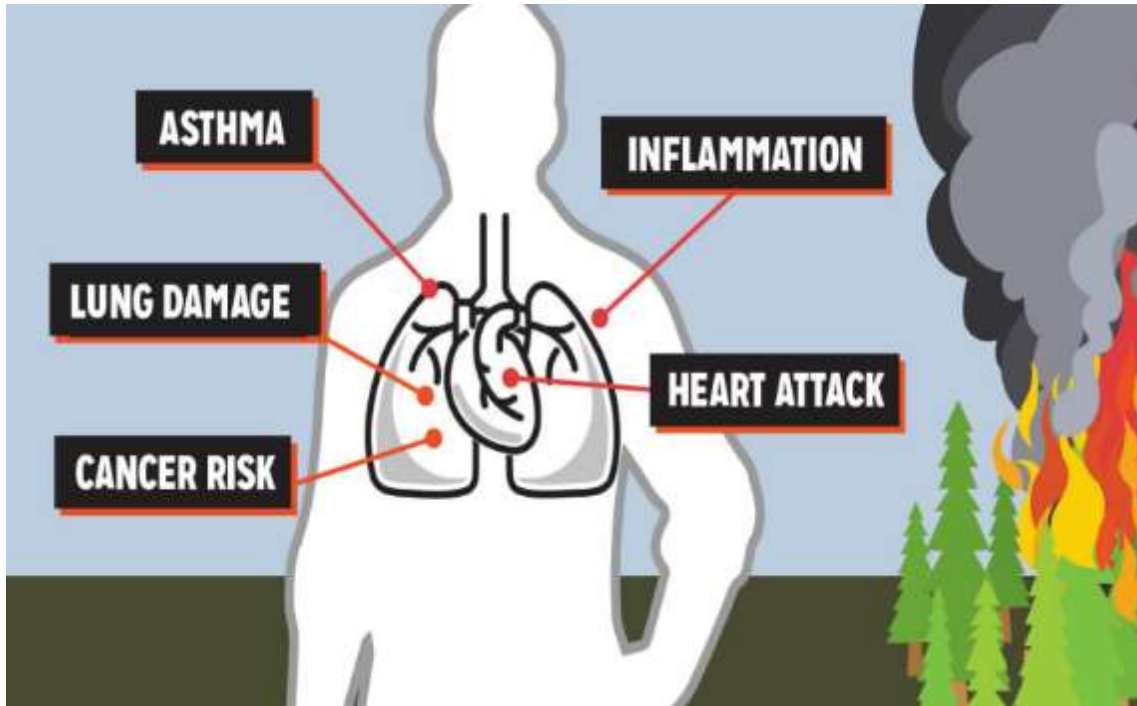


Smoke Synthesis & Toxicity is directly depended on the **Fuels Burned** towards the **Fire-front Path**



Smoke exposure has been associated with increased risk of **COVID-19** cases and deaths

- **Health Impacts of Wildfire Smoke**



Adverse health effects due to Wildfire Smoke Exposure:

- Acute
- Short-term
- Long-term

- **Vulnerability in Disasters**

Every Life Counts

“The UNDRR global survey in 2013 explains why so many people living with disabilities die in disasters”

<https://www.unisdr.org/archive/35032>

A follow up survey was conducted at the beginning of 2023:

<https://www.preventionweb.net/news/2023-survey-persons-disabilities-and-disasters>



- **Disabled people in case of a fire emergency:**
No-one should be left behind



Disabled people are at higher risk in case of a fire due to difficulties in evacuating alone and the smoke inhalation



Evacuation of patients during the Camp fire in Paradise, California, on Nov. 8, 2018. Credit: Josh Edelson/AFP via Getty Images

- **How to strengthen Disaster Resilience for ALL?**

Disaster Risk = Hazard x Exposure x Vulnerability



- ✓ **Reduce the level of Exposure**
- ✓ **Minimize the Different Types of Vulnerability Before-During-After a Disaster**

• PREPARE: Personal Emergency Evacuation Plan (PEEP)

In case of an emergency situation everybody needs to be capable of answering the following questions:

- *Is there an emergency?*
- *What is the emergency?*
- *How to respond to the emergency?*
- *Where is the way out?*
- *How can I move to a safe place? Alone, or assisted?*



A Personal Emergency Evacuation Plan (PEEP) is necessary for anyone who needs assistance in an emergency



Personal Survival Kit



Αν λόγω ηλικίας, ασθένειας ή αναπηρίας εκτιμάς ότι θα χρειαστείς βοήθεια σε μία έκτακτη ανάγκη δημιούργησε το προσωπικό σου δίκτυο υποστήριξης:

- Κάνε έναν κατάλογο συγγενών, φίλων και άλλων προσώπων, που θα μπορούσαν να σε βοηθήσουν
- Να συμπεριλάβεις έναν συγγενή ή φίλο που ζει σε άλλη περιοχή
- Κάθε άτομο του δικτύου σου θα πρέπει να γνωρίζει πώς σκοπεύεις να φύγεις από το σπίτι ή το χώρο εργασίας
- Ενημέρωσε το δίκτυό σου για φάρμακα που λαμβάνεις και υποστηρικτικό εξοπλισμό που χρησιμοποιείς (αμοξικιλίνη, οξυγόνο κ.λπ.)

✓ Προετοιμάσου για την περίπτωση που θα χρειαστείς υποστήριξη μεταφοράς.

Guidelines for Preparing the emergency kit and safety network of vulnerable groups by GSCP,GR

• PRACTICE: Simulated Exercises and Evacuation Drills with participation of Groups considered Vulnerable

Inclusive exercises and drills benefits in terms of disaster preparedness and response:

- ✓ Evaluation of the Evacuation Plans
- ✓ Awareness and training of the involved parties including the vulnerable groups and their caregivers
- ✓ Practicing the interoperability of means and actors
- ✓ Validating the training of the rescuers on saving people with disabilities (per type of disability)
- ✓ Identification of possible gaps
- ✓ Evaluation of equipment, techniques and processes
- ✓ Standardizing operational processes that include vulnerable groups



Simulated Exercise: Rescue of a student with mobility problems, entrapped at the 2nd floor of a High School in Greece

- **International Experience on Inclusive Community Engagement/Locally-Led Action**

In Australia, Deaf Connect has translated the Australian Red Cross national preparedness plan into sign language videos and trained liaisons who deliver emergency services training and deaf preparedness seminars.

In Brazil, blind people participation in risk management decision-making has taken place, creating a map with a raised hazard warning.

In the Philippines, the Cebu City Network for Inclusive Disaster Risk Reduction has created a specific methodology for training government and public officials on the inclusion of people with disabilities in preparedness, as well as on how to communicate and behave towards them.



• Lessons Learned

“Every System is producing the Results that it is Designed for”

- ***Inclusive criteria and participation of people with disabilities in the **Early Design and Planning Phase*****
- ***Active Involvement of Vulnerable Groups and their caregivers in simulated **Exercises & Drills/ Person-centered approach*****
- ***Reinforce post-disaster recovery **for All*****



Inclusive Community
engagement in DRM



Vulnerabilities/
Disaster Risk



***Strengthen Community Resilience as a
whole upon Emerging Risks &
Complex Emergencies***

• About ECFF

The **EUROPEAN CENTER FOR FOREST FIRES (ECFF)** was inaugurated in Athens in **2003**

- ECFF operates within the framework of the **EUR-OPA Major Hazards Agreement** of the Council of Europe and runs at the **headquarters of the General Secretariat for Civil Protection, Ministry for Climate Crisis and Civil Protection, Greece**
- It is one of the **26 Specialised Centres** of EUR-OPA that **has the role to improve the awareness and resilience to major risks within the population**
- **ECFF** mainly focuses on the environmental and **health impacts of forest fire smoke especially on vulnerable groups of the population**



• ECFF Publications

ECFF has published so far 7 Volumes of **Forest Fire Net (FFNet)** dedicated to forest fire and smoke issues, with experts' participation as guest editors

FFNet VOLUMES

- **FFNet 1 (2003):** "Inauguration of ECFF"
- **FFNet 2 (2004):** "Lessons learned" from the large scale forest fires in summer 2003 in Europe
- **FFNet 3 (2005):** "Short & Long term health impacts of forest fire smoke on fire-fighters and the exposed population"
- **FFNet 4 (2006):** "Air quality monitoring in the field and personal protective equipment in big forest fire incidents: a state-of- the art and beyond"
- **FFNet 5 (2007):** "Forest fires in Greece during summer 2007: The data file of a case study"
- **FFNet 6 (2009):** "Human rights in Disasters: Search and Rescue Operations in Disasters especially for vulnerable people"
- **FFNet 7 (2010):** "Recent Developments and Needs for Wildfire Fighting on the Ground: Tactics and Technologies"



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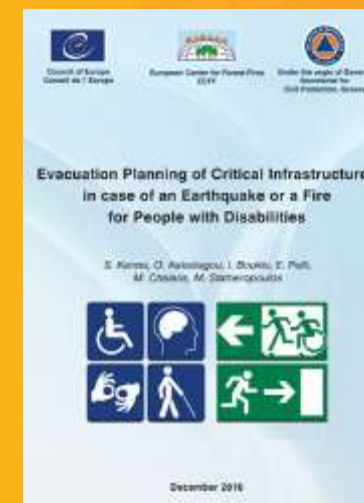
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• ECFF Books

- Focusing on preparedness of communities upon wildfire and smoke issues, a book was prepared in cooperation with the Global Fire Monitoring Center, Germany (GFMC) entitled: ***“Defense of Villages, Farms and Other Rural Assets against Wildfires: Guidelines for Rural Populations, Local Communities and Municipality Leaders in the Balkan Region”***
- Focusing on issues relevant to evacuation of people with disabilities, a book was prepared in cooperation with the European Center for Prevention and Forecasting of Earthquakes (ECPFE) entitled: ***“Evacuation Planning of Critical Infrastructures in case of an Earthquake or a fire for People with Disabilities”***
- Underlying the importance of inclusive community engagement for building disaster resilience, a book was prepared in cooperation with the European Center for Prevention and Forecasting of Earthquakes (ECPFE) entitled: ***“Multi-hazard Risk Approach and Inclusive Community Engagement in Disaster Risk Management: Experiences & Lessons learned by a recent Wildfire Event in the Greek Island of Rhodes amidst COVID-19 pandemic crisis”***



• **ECFF indicative activities aligned with the SENDAI Framework**

**Workshop: "Inclusivity in disaster preparedness and response:
Active participation of people with disabilities in evacuation exercises"**

"WE LEAVE NO ONE BEHIND"



8-11-2022, Ministry for Climate Crisis and Civil Protection, Athens, Greece

Thank you for your attention

Dr Sofia Karma

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