A Global Early Warning System for Wildland Fire

Disasters Task DI-09-3b

Bill de Groot, Canadian Forest Service
Johann Goldammer, Global Fire Monitoring Centre, University of Freiburg
Tim Lynham, Canadian Forest Service
Ivan Csiszar, National Oceanic and Atmospheric Administration
Chris Justice, University of Maryland
Jesus San-Miguel Ayanz, Joint Research Center
Wildland fire occurs constantly around the globe.
Examples of Recent Wildfire Disasters

Wildland fire disaster:
When national fire agencies are overwhelmed by wildfire(s) activity to the point where people, homes, property, and resource-based industries can not be protected.
Examples of Recent (Documented) Wildfire Disasters

- Wildfire disasters occur globally
- Many wildfire disasters are undocumented
There are many negative economic, social, and environmental impacts of uncontrolled wildland fire.

Many of these impacts can be mitigated, and sometimes prevented, through early warning of wildfire disaster conditions.
Early warning allows implementation of:

- fire prevention
- fire detection
- resource mobilization

before wildfire disasters occur.
Early warning system products

Current fire danger - data inputs

Local/regional information links

Global compilation of current national FDRS’s

Forecast global FDR, weather data and EWS products

Ground-based Wx Products
- Current and forecast fire weather using ensemble models

RS Products
- Active fire monitoring, veg/fuels/biomass, spatial rainfall, fire radiative energy

Fire Danger
- Integrated mapping of weather, fuels, fire behaviour, active fire locations

Fire Mgt Tools
- Early warning action plans: prevention, resource-sharing, detection, mobilization

CFS, U Maryland, NOAA/NESDIS, FIRMS, JRC, WMO

GFMC

Sub-national and/or Local
- Capable of operating FDRS locally, or as part of larger Network

National Fire Organizations
- Nations with FDRS
- Nations w/out FDRS

Regional Wildland Fire Networks
- 13 Regional Networks

UN/ISDR, FAO, UNEP, WHO
- Early Warning of Fire Disaster - safety; Resource-Sharing coordination; Fire emission health warnings

EWS Modeling

EWS Information and Data Coordination

EWS Modeling

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EWS Information and Data Coordination

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GFMC

Regional Wildland Fire Networks

13 Regional Networks

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The Global EWS for Wildland Fire will provide:

- daily fire danger rating information to countries without operational fire danger rating systems
- a common system with which to implement international resource-sharing agreements during times of wildfire disaster