Food and Agriculture Organization of the United Nations

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CLIMATE CHANGE

Fire-smart forest management

Strengthening knowledge to combat wildfires and boost wildfire resilience

The issue

The increased frequency and intensity of wildfires is driven by longer fire seasons, exacerbated by climate change, with severe implications for water quality and supply, livelihoods and biodiversity. Damage and loss from wildfires can be reduced by investing in fire-smart resilience and management systems. The issue is not well understood, so governments and institutions tend to take a reactive approach to wildfires when they should be implementing sustainable integrated fire-management systems that reduce risk, enhance preparedness, enact a fast and safe response plan and aid quick recovery. Resources should be directed to fire data collection and analysis to aid understanding of fire causes, sources and motivations and to identify current management practices that promote harmful fires. Countries also need to identify and scale up fire and land management systems that draw on practices such as traditional fire knowledge and community-based fire management.

The action

The programme will strengthen integrated fire-management systems based on a country-by-country analysis, systematically applying a frame of reference to enact "fire-smart" management policies, plans and practices. Understanding wildfire risk is the first step towards reduction. Analysing the geographical patterns of previous fires and weather data is an increasingly accurate predictor of future wildfires, as is understanding people's livelihoods and activities, as the majority of wildfires start as a result of intentional fire use. .s and other key national and local institutions must be given the capacity to:

- put in place (or renew) integrated fire-management systems, including analysis of the fire issue and underlying causes, risk reduction (including early warning systems) and readiness to fight fires, appropriate response and recovery (restoring ecosystems and assets);
- restore the forest and livelihoods of wildfire-affected people by providing expertise, technical help and loss assessment, including food-security impacts, to bring about a recovery that meets immediate needs and medium-term requirements and strengthens resilience long term;
- deepen understanding of the fire issue through detailed review using area burnt, land use and vegetation cover from remote sensing, combined with analysis of the socioeconomic aspects of fire causes and effects.

The issue in numbers

370 million

90%
of fires worldwide are caused by humans

199
wildfires in 2000–2016 led to 983 deaths, 2.9 million people affected and USD 40 billion in damage

Programme targets

10
countries analysed using a standardized fire-management dashboard

10
countries have a wildfire risk-reduction strategy in place

2
regional fire-management networks are up and running

The budget

USD 10 million

5 years

10 countries

Expected results

- Stronger fire response systems – development of a systematic approach to fire prediction, monitoring and management in order to bolster fire prevention and to support response and recovery.
- Forest and livelihood restoration – restore the forest and the livelihoods of wildfire-affected populations to enable recovery to meet immediate needs, fulfil medium-term requirements and ensure long-term resilience.
- Advocacy and awareness – broaden understanding through a dedicated website, with a fire-management dashboard and workshops and training in target countries.
- Enhanced global evidence base – conduct a thorough analysis of the reasons for devastating wildfires and help countries to reduce risks, to be prepared to act when fires happen (including regional collaboration agreements) and to build back better, with an emphasis on landscapes.

Geographic focus

The programme will focus on wildfire management in Africa, Asia and Latin America and the Caribbean. Work is already underway in Algeria, Cambodia, Myanmar, Sudan and Timor-Leste. Initial contact has been made with or support been given to Angola, Armenia, Bolivia, Lebanon, Madagascar, Mozambique, Paraguay, South Sudan and Zimbabwe.

In partnership with

Food and Agriculture Organization of the United Nations (FAO) will use its United Nations global technical mandate through its five regional offices, five regional forestry commissions and 130 country offices. Key partners will include UN Environment, UN Disaster Risk Reduction, the European Commission, the International Union of Forest Research Organisations, the Silva Mediterranea Working Group 1 on Fire Management, the Centre for People and Forests, the Centre for International Forestry Research and the World Bank. FAO continues to engage in international and regional fora, such as the International Wildland Fire Conference, the International Fire Science Conference, Mediterranean Forest Week, the International Association of Wildland Fire, the International Wildland Fire Safety Summit and the Expert Group on Forest Fires of the European Union.

SDG contribution

1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 6 CLEAN WATER AND SANITATION; 13 CLIMATE ACTION; 14 LIFE BELOW WATER; 15 LIFE ON LAND

Fire management in Myanmar

In Myanmar, FAO is supporting the government and other stakeholders in developing an integrated strategy and action plan for fire management, which will ultimately lead to the development and implementation of a national integrated fire-management system. It involves:

- Stocktaking and analysis of Myanmar's fire history, existing fire-management practices and relevant policy, legal and institutional framework;
- Supporting a multi-stakeholder platform to enhance the enabling environment for climate-smart fire management;
- Preparing an integrated national strategy and action plan on fire management;
- Implementing national strategy and action plan on fire management.

Why invest?

The main approach to fire control in developed and developing countries has been firefighting and the prohibition of fire use. However, fires are a landscape-management and livelihood issue. They do not result from insufficient or inadequate firefighting, but from the fuel-continuity situation and the accumulation of fuels from vegetation. Landscape changes have made populations more vulnerable. The pressures and influences that contribute to wildfire disasters need to be analysed and communicated. FAO's systematic approach includes fire analysis, the identification of needs, appropriate strategies and response tools, and implementation monitoring. Though an integrated approach, countries and their forest landscapes will see continuous improvement in fire management that will help preserve biodiversity, combat climate change and have lasting effects on resilience and livelihoods.

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