

The Cooperative International Fire Initiatives Developed through the FAO

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Summary

After the disastrous global fires in the late 1990s; the need arose in the Food and Agriculture Organization (FAO) of the United Nations (UN), to increase the assistance in helping to build national fire management capabilities and to support member countries to reduce adverse effects of wildfires. Such effects include loss of human life and property, the destruction of vegetation cover, loss of valuable natural renewable resources and degradation of habitats for plants and animals leading to threats to biological diversity, soil erosion, desertification, smoke, haze and atmospheric pollution, and the contribution of fires to climate change.

In seeking solutions to the problem emphasis has been in many countries and by many donors laid on fire suppression while inadequate attention has been placed on addressing the underlying causes of fire out of which more than 95% are human induced. Agencies such as FAO are recommending that attention be increasingly placed on the development of international agreements, national legislation and guidelines, and implementation of field activities, focusing on integrated and community based fire management, in which the involvement of a wide range of stakeholders is assured.

There is also a need to improve the understanding of fire ecology and fire management regimes so that strategies can be developed for the improved use of fire as a forest and vegetation management tool (USDA 1999); with special emphasis to the urban interface fires that devastated several housing sites in the United States of America (USA) in 2002 and in Canberra, Australia in January 2003.

To facilitate information sharing and the exchange of information and know-how at global level; existing wildland fire networks are being strengthened and new ones established.

There is also a need to provide support and dissemination facilities for research work on identified information gaps in global fire information.

Key words: International initiatives, fire ecology, participatory management, fire networks, gap research

Background

The Forest Department of FAO, among many of its activities, is also involved in a programme on Forest Resources under which there is a component on the Sustainable Management of

Natural Forests and Woodlands. Forest Fire Management is a sub-component of the above activities, with the objective of developing: Improved methodologies and cooperation in forest fire management.

Forest fire management activities of FAO may be summarized as follows:

- Identification and promotion of improved methodologies and practises in forest fire management, including prevention, evaluation and people's participation;
- Database on forest fire developed and maintained;
- Support to country-based efforts in the adoption and application of above methodologies and practises; and
- Support to exchanging of information and effective cooperation on forest fire issues among countries; an activity which also includes interdepartmental- and sectoral cooperation in the development of national legislation and guidelines for forest fire management.

The role of FAO in forest fire management

After the disastrous global fires in the late 1990s; the need arose in the Food and Agriculture Organization (FAO) of the United Nations (UN), to increase the assistance in helping to build national fire management capabilities and to support member countries to reduce adverse effects of wildfires. Such effects include loss of human life and property, the destruction of vegetation cover, loss of valuable natural renewable resources and degradation of habitats for plants and animals leading to threats to biological diversity, soil erosion, desertification, smoke, haze and atmospheric pollution, and the contribution of fires to climate change.

FAO has over the years been active in the field of forest fire management through assistance to member countries in policy level dialogue, the collection, analysis and interpretation and dissemination of information and know-how, and the development of methodologies and strategies related to early warning, prevention, management control and remedial action following forest fires. The first FAO publication on fire "Elements of Forest Fire Control" was published already in 1953 (FAO1953). The heated debate on prescribed burning presented in this booklet on the large fires in Victoria in 1939, have lost none of its arguments from those days; when the fire researcher Jim Gold wants to investigate the value of controlled or prescribed burning; at the site of the Canberra fires in January 2003 (Nature 2003).

In the work to develop global fire management further, FAO has closely collaborated with numerous national institutes in member countries, and with a large number of international partners, the donor community and fire managers all over the world.

FAO Activities in Forest Fire Management to Implement High Priority Recommendations¹.

¹. FAO/ITTO; Expert Meeting on Forest Fire Management, March 2001 (FAO 2001).

Globally a change in approaches to forest fires occurred, when particular interest and higher priority were put on forest fires as consequences of their higher frequency and intensity in the late 1990s (Indonesia) and the particular request from Mediterranean countries. In response heightened action has followed within FAO.

FAOs formative activities

After a few incidents of international assistance in fire suppression; it was recognized that cross-border assistance required legally binding agreements since a lot of resources were at stake. At FAO it was recognized that legal information on international/bilateral agreements needed to be continuously up-dated: the information acquired on the topic is available at: <http://www.fao.org/forestry/foris/webview/forestry2/index.jsp?siteId=1520&langId=1&97038584>

This information is presented in a Report on Legal Framework for Forest Fire Management International Agreements and National Legislation (FAO 2002); which was completed in June 2002.

On the basis of above, FAO produced an elaboration of Guidelines for the establishment of international agreements developed as an outline, or “checklist of issues” to be considered when developing international agreements. These Guidelines will assist countries in developing their own agreements.

The publication of a Global Forest Fires Assessment 1990-2000 (FAO/FRA2000), including profiles on fire for more than 50 countries, was accomplished to provide improved global statistics on forest fires and establish a global data base on fire and burning.

The FAO Guidelines on Fire Management in Temperate and Boreal Forests, (prepared to complement already existing, similar ITTO guidelines for the tropics); was completed in 2002 and a fully revised, tri-lingual FAO Terminology on Forest Fires (previous version published as FAO Forestry Paper 70)- is planned to be finalized during 2003 to 2004.

Publication of technical guidance on forest fire protection in the Mediterranean Basin (Protection des Forêts contre l’incendie: fiches techniques pour les pays du Bassin Méditerranéen) was carried out as a collaborative effort between FAO and the Institut de Recherche pour L’ingénierie de L’agriculture et de L’environnement (Cemagref) (FAO2002).

Development of a Template for the formulation of projects on forest fire management, prepared with a view to support countries in the preparation of technical cooperation projects (TCP) and emergency projects (available on-line); development of an expanded checklist to support in-country project formulation and development in this field (*in progress*).

Collaboration with the Forest Department of Spain and CIHEAM in the preparation and wide dissemination of a Training Video on forest fire management in English, French and Spanish. Translation and adaptation to conditions of countries in the Near East of two Training Videos on forest fire management, prepared within the framework of FAO coordinated projects.

In June 2003 the Committee FAO/Silva Mediterranea jointly with CIHEAM organized a workshop on multilateral assistance against forest fires in the Mediterranean Basin. The participants of this Workshop agreed on the need to improve the technical tools and procedures available presently in the countries of the Mediterranean Basin (MB) to facilitate operations of Bilateral and Multilateral Assistance against forest fires.

- This work includes the establishment of guidelines for requirements in e.g. dispatching units for crossborder assistance; it also includes logistics requirements for various types of airplanes and specialized suppression equipment.
- In addition there is also a need to prepare guidelines on various tactics and techniques to be employed within the jurisdiction of the authorities of a certain country.
- This objective is attainable by i.e.: Completing the FAO inventory of existing bilateral agreements; including others identified in this Workshop, and by the Committee FAO/Silva Mediterranea.

At present point in time such detailed guidelines are to a large extent still not available; which makes it impossible for a country to dispatch e.g. amphibious airplanes to other countries.

There is a further need to organize a Course/Seminar on Coordination of Plans for Joint Operations, like the previous Workshop for the development of a General Agreement on Multilateral Assistance; with non-EU countries in the MB participating. This Seminar was recommended to take place in the Mediterranean Agronomical Institute of Zaragoza, during the latter part of 2004.

Summative activities

FAO has a close collaboration with a large number of Governmental and non-Governmental agencies, organizations and mechanisms, including notably: the Global Fire Monitoring Centre (GFMC), UNEP, ITTO, IUFRO, CIFOR, IUCN, WWF and the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM).

Publication and wide dissemination on the Report on FAO/ITTO Expert Meeting on forest fire management, March 2001 (FAO 2001) (English, French, Spanish, Arabic and Chinese); was also carried out; including the preparation of a Follow-up Report to: FAO/ITTO International Expert Meeting on Forest Fire Management, October 2001.

FAO is also carrying out regular monitoring and reporting on forest fire management programmes, activities and priorities to FAO Statutory Bodies; the Collaborative Partnership on Forests (CPF); the United Nations Forum on Forests (UNFF); and through these fora, and directly through the FAO Network of Forest Fire Experts, to the international forest fire community in general.

The Working Group on Wildland Fires (Goldammer 2002), operating under the Inter-Agency Task Force for Disaster Reduction (ISDR); headed by the Global Fire Monitoring Center (GFMC), the FAO, UNEP and the World Bank (WB) established (June 2002) under the framework of above; nine (9) joint regional wildland fire networks to promote globally fire related information exchange between relevant institutions, countries, forest fire managers and experts.

These new wildland fire networks are continuously being strengthened and expanded; training centres were already established within some of the networks, for providing training in fire management and for providing specialised short course training in participatory or integrated fire management.

Technical guidance to countries and backstopping of forest fire Technical Cooperation Projects (TCP) and emergency projects was provided to a number of countries. Such projects are presently under way, or have recently been finalized, in Cuba, Cyprus, Gambia, Laos, India, P.R. China, Honduras, Turkey, Ethiopia and Mongolia; in the latter two, partnership programmes have provided the backbone for activities (TCDC, retired experts). Forest Fire projects are in the pipeline and in varying stages of development and approval, *i.e.* in Bulgaria, Syria and Guatemala.

Global information on fire management was also disseminated through the International Forest Fire News (IFFN) published by the Team of Specialists on Forest Fire of the joint FAO/ECE/ILO Committee on Forest Technology, Management and Training; Timber Section UN-ECE Trade Division and the GFMC. (<http://www.fire.uni-freiburg.de/iffn/iffn.htm>) (IFFN 1990/2003).

Future activities in forest fire management

Close collaboration scheduled with a large number of Governmental and non-Governmental agencies, organizations and mechanisms, including notably: the Global Fire Monitoring Centre (GFMC), UNEP, ITTO, IUFRO, CIFOR, IUCN, WWF and the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM).

There is a need to further consolidate and confirm FAOs role as a support provider in national policy and programme development; in technology development; in capacity building; and in organizational/logistical approach to regional bilateral cooperation in active forest fire control.

The future activities include the continuing of updating legal information and supporting legal and regulatory development in member countries; including assistance in developing sub-regional or international agreements.

Future activities include participation in the activities of the Working Group on Wildland Fire of the UN Inter-Agency Task Force for Disaster Reduction (ISDR); and in the FAO/ECE/ILO Team of Specialists on Forest Fires.

Technical and logistical support to the organization of the: Workshop on Multilateral Assistance against forest fires in the Mediterranean Basin; (Zaragoza, Spain 10-11 June 2003); the 3rd International Wildland Fire Conference (Sydney, Australia 4-8 October 2003); and the XII World Forestry Congress (Quebec, Canada 21-28 September 2003); the FAO/ECE/ILO Conference on Forest Fire Management and International Cooperation in Fire Emergencies in the Eastern Mediterranean, the Balkans and Adjoining Regions of the Near East and Central Asia (Antalya, Turkey in April 2004); Activities include the preparation of overview papers for these events and serving as technical Secretary for key sessions.

There is a need to strengthen the human resources capacity in forest fire management by assisting the countries in providing appropriate training (RECOFTC 2000); the sustainability of effective fire management depends on the in-country capacities to manage forest fire (Rowell 1999).

Special attention will be directed towards tropical drylands (e. g. by supporting the Wildland Training Centre “Africa” and responding to the CCD/NEPAD forest/bushfire programme being developed). This may be done by strengthening and expanding the nine established regional wildland fire networks; and support the establishment of regional centres of excellence within each network, for a more efficient exchange of information among fire managers and researchers as well as for improved capabilities in managing fire; including the continuing of updating FAO Forest Fire Website which now includes a site on forest fire Alerts. This fire Alert Web page; <http://www.fao.org/forestry/foris/webview/forestry2/index.jsp?siteId=4021&langId=1> is connecting FAO, the GFMC and the UNEP/OCHA, and it includes directives in three languages (E, F, and S) in how to act in case of National Fire Emergencies.

Technical guidance to countries and backstopping of forest fire Technical Cooperation Projects (TCP) and emergency projects will be provided to a number of countries. Such projects are presently under way in: Bulgaria, Croatia, Ethiopia, India, Jordan, Mongolia, Mozambique, Philippines, Portugal, Seychelles and Syria.

Additional work is required in the continuous preparation of country forest fire profiles, statistics (UN-ECE/FAO 2000) and their wide dissemination through CD-Rom and the Web; and in updating and revising information available through contacts with, and feedback from, countries concerned. The data collection for the Global Forest Resource Assessment; FAO/FRA 2005, is soon to commence with the need to update present global fire information.

An Information Note on forest fires and HIV/Aids, is published within the framework of FAOs programme on Forestry and Food Security

For further provision of support to member countries and for providing dissemination facilities for fire research work on identified information gaps on global fire information there is a need to:

- Create broader understanding of fire ecology and fire management regimes to better be able to use fire as a management tool; and develop special fire danger rating systems for forests and bush land growing on peat soils
- Be able to predict how fire will spread under a given condition (including urban-rural interface), this includes research on spotting from different sources of bark; however, this research should also encompass the conditions of Africa, wherein e.g. elephant dung is the most dangerous source of spotting (due to its capability to roll along the ground) as experienced in Etosha National Park and in the new Transfrontier Park;
- Find out more about the socio-cultural reasons of fire and burning; and encourage closer research on what triggers a “pyromaniac” to go on knowingly setting dangerous fires;

which will cause danger to human life and will have a devastating impact on economy and environment; and

- Support work leading to the further development of participatory/community based or integrated forest fire management.

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