REPORT
on the

FAO/ITTO INTERNATIONAL EXPERT MEETING
ON FOREST FIRE MANAGEMENT

Rome, Italy
7-9 March 2001

Food and Agriculture Organization of the United Nations
REPORT ON THE

FAO/ITTO INTERNATIONAL EXPERT MEETING ON
FOREST FIRE MANAGEMENT

Rome, Italy, 7-9 March 2001
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<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<td>BALTEX</td>
<td>Baltic Exercise on Fire Information and Resources Exchange</td>
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<td>CCAD</td>
<td>Central American Commission on Environment and Development</td>
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<td>CIHEAM</td>
<td>International Centre for Advanced Mediterranean Agronomic Studies</td>
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<td>CILSS</td>
<td>Permanent Interstate Committee for Drought Control in the Sahel</td>
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<td>COFO</td>
<td>FAO Committee on Forestry</td>
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<td>CPF</td>
<td>Collaborative Partnership on Forests</td>
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<td>ECE</td>
<td>Economic Commission for Europe</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FRA</td>
<td>Forest Resources Assessment (coordinated by FAO)</td>
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<td>GFMC</td>
<td>Global Fire Monitoring Center</td>
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<td>IGADD</td>
<td>Inter-Governmental Authority for Drought and Development</td>
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<td>ILO</td>
<td>International Labour Organization of the United Nations</td>
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<td>INSARAG</td>
<td>UN International Search and Rescue Advisory Group</td>
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<td>ISDR</td>
<td>International Strategy for Disaster Reduction</td>
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<td>ITTO</td>
<td>International Tropical Timber Organization</td>
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<td>IUCN</td>
<td>World Conservation Union</td>
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<td>OCHA</td>
<td>Organization for the Coordination of Human Affairs</td>
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<td>SADC</td>
<td>Southern Africa Development Community</td>
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<td>UNCED</td>
<td>United Nations Conference on Environment and Development</td>
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<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>UNFF</td>
<td>United Nations Forum on Forests</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>World Wide Fund for Nature</td>
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I. INTRODUCTION

1. The International Expert Meeting on Forest Fire Management, organised by FAO in cooperation with the International Tropical Timber Organisation (ITTO), was held at FAO Headquarters in Rome from 7 to 9 March 2001.

2. The meeting was held in follow-up to the FAO meeting on Public Policies Affecting Forest Fires, held in Rome in October 1998, which identified the need for support to the development of regional and bilateral Agreements for collaboration in forest fire management, including identification of technical and financial inputs; improved sharing of information and knowledge, and support to strengthened technical cooperation among developing countries i.e. through networking and twinning; and identification of the roles which FAO and other international organisations could play in this regard, including technical assistance, institutional support and capacity-building.

3. Organization of an international expert meeting on forest fires was, further, recommended in the consultancy report, “Proposals for Strengthening FAO’s Role Regarding Forest Fire Management” (FAO 2000)1.

4. The specific objectives of the meeting were to:-

(i) Examine the need and capacity of concerned member countries in predicting, preventing, managing and fighting forest fires;

(ii) Identify countries that have such capacity, and the period of the year when they could put know-how and equipment at the disposal of others who might need it;

(iii) Identify countries that could potentially utilise the capacity available with others during a relevant period of the year; and

(iv) Explore the possibility of organizing the necessary logistics and compensation in inter-country arrangements of this kind.

On the basis of findings in (i) to (iv) above, the experts were to recommend action related to:-

(v) Development of human resources and mechanisms needed to support cooperation in forest fire management and control, mainly at bilateral, regional and, eventually, international levels; and

(vi) Mechanisms for the establishment of inter-country Agreements among groups of two or more countries, aimed at coordinating efforts to establish norms and to share resources, personnel and equipment in situations of emergency. This would include review of the feasibility to share heavy land and aerial equipment, and on prospects for developments on a wider geographic basis.

The Experts would, further:-

(vii) Help identify the role of international organizations in promoting the work in points (i) to (vi).

5. The Agenda of the meeting is given in Annex 1.

6. The attendance in the Expert Meeting is detailed in Annex 2. The eighteen experts, from 14 countries, invited by the Director-General of FAO, were selected on the basis of their specialised knowledge and their familiarity with policies, practices, databases, monitoring procedures and dialogue in international, regional and national forest fire management. The experts served in their personal capacity and not as representatives of their governments or organizations.

1 Available from Forest Resources Division, Forestry Department, FAO, Rome (Italy).
7. Participants in the meeting included resource persons from each of FAO and ITTO as the two co-sponsoring agencies and international NGOs including IUCN/WWF and GFMC. Regrets were received from Unesco, the World Bank, UN/ECE and the UN University. UNEP, WHO and CIFOR were unable to attend.

8. A number of FAO staff members from other units of the Forestry, Legal, Agriculture and the Sustainable Development Departments, attended the Opening and some of the sessions of the meeting.

II. OPENING OF THE MEETING
(Agenda Item 1)

9. Mr. M. Hosny El-Lakany, Assistant Director-General, Forestry Department, welcomed the participants to the International Expert Meeting on Forest Fire Management on behalf of the Director-General of FAO, Mr. Jaques Diouf.

10. Mr. El-Lakany noted that the meeting was organized by FAO in collaboration with the International Tropical Timber Organization (ITTO). He expressed the appreciation of FAO for the continuing, constructive collaboration with ITTO as a long-standing partner in the forestry field.

11. Mr. El-Lakany noted that the recent occurrence of extensive forest fires in different parts of the world had deepened the concern of policy makers, technicians and scientists, the general public, and the mass media alike.

12. He mentioned that causes, extent and effects of forest fires were related not only to climatic and environmental conditions, but also to national policies, laws and institutions.

13. He stressed that people used fire because they expected to obtain benefits from its use. The problem was not so much in its use as in its management. The overall goal of a policy on fire had to be focused on reducing adverse effects. Fires constituted a serious threat not only to the environment and human livelihoods, but also to human life. Conversely, fire was an important phenomenon in the dynamics of most ecosystems, and an essential tool in human management of such systems.

14. Mr. El-Lakany referred to the meeting on Public Policies Affecting Forest Fires mentioned above, in which several of the participants attended. He re-iterated the findings of the Public Policies meeting that emergency responses only to suppress forest fires were not adequate by themselves; and that the key lay in forging links between sustainable land use policies and practices on the one hand and emergency preparedness on the other. He noted that, ultimately, private owners and local people must be intimately involved in the development and implementation of strategies and methodologies; involvement of all stakeholders was essential for success in forest fire prevention, prediction, suppression and monitoring.

15. Co-operation between sectors at national level and between countries at international level was becoming increasingly important. Recent large-scale fires throughout the world had resulted in instances of countries assisting neighbouring countries on an ad hoc basis. Such cooperation could be significant also in establishing shared databases, strengthening policy-making capabilities, and developing institutional and legislative frameworks.

16. Mr. El-Lakany noted that FAO had over the past years been active in the field of forest fire management, through support to member countries in policy level dialogue, the collection, analysis, interpretation and dissemination of information and know-how, the updating of forest fire terminology, and the development of methodologies and strategies related to early warning, prevention, management, control and remedial action following forest fires- i.e. rehabilitation. In this work, FAO had closely collaborated with national institutes in member countries, and with a number of international partners.
17. In line with its mandate, FAO planned to strengthen its work in the field of forest fire management in the coming years. In this regard, FAO will continue to support countries to strengthen national capacities and capabilities, and, in collaboration with international partners, support the sharing of information and know-how among countries.

18. Mr. El-Lakany stressed that in line with the objectives, the meeting should help review and support the development of mechanisms for the establishment of inter-country Agreements aimed at cooperation and collaboration between countries and, where feasible, the development of bilateral arrangements by which countries might share resources, personnel and equipment in situations of emergency. Requests from countries for this kind of support clearly indicated that as forest fire management issues were of utmost importance in achieving sustainable forest management, FAO and other agencies had to support countries to respond to these challenges.

19. In closing, Mr. El-Lakany noted that the conclusions, recommendations and action plans to be developed by the present expert meeting would be made available to the 15th Session of the Committee on Forestry to be held in Rome during 12-16 March, 2001. Recommendations of COFO would, subsequently, be incorporated into the FAO work programme, including forthcoming initiatives related to forest fire management.

20. The representative of ITTO, Mr. Efransjah, joined Mr. El-Lakany in welcoming the forest fire experts and participants to the meeting and acknowledged the close working relationship with FAO in key issues relating to sustainable forest management. He concurred with the statements of Mr. El-Lakany on the major constraints and inadequacies in forest fire management.

21. Mr. Efransjah emphasized the challenge to synergize the work of all international institutions in order to better respond to the needs of member countries in forest fire management, including prevention. He mentioned the ITTO Guidelines on Fire Management in Tropical Forests as one of the key references under preparation by FAO, of guidelines for temperate and boreal forests. Mr. Efransjah noted that ITTO had redefined its role in forest fire management in light of the recent major fires in Indonesia and SE Asia. ITTO had a policy of collaborating and participating in inter-agency initiatives on forest fire management; he suggested that the expert meeting prepare a concrete plan of action to prioritize the support needed to serve countries and strengthen capacity and response to forest fire management. He looked forward to collaboration with FAO and other international agencies in supporting achievable initiatives that would make immediate and major impacts in forest fire management.

III. ELECTION OF CHAIR AND VICE-CHAIRS
(Agenda Item 2)

22. The meeting elected Mr. Ricardo Vélez Muñoz Chair; and Mr. Johann G. Goldammer and Mr. Samsudin Musa Vice-Chairs. Mr. Jan Troensegaard acted as Rapporteur. Ms. Christel Palmberg-Lerche, Mr. J.B. Carle, Mr. M. Paveri and Ms. G. Allard served in the Secretariat of the meeting.

IV. ADOPTION OF AGENDA
(Agenda Item 3)

23. The Provisional Agenda as proposed by the Secretariat was adopted (see Annex 1).

24. Mr El Hadji Sène, Director, Forest Resources Division, Forestry Department, FAO, re-iterated that there had been a dramatic increase in the incidence and impacts of fire in recent years, however, the responses for suppression had been inadequate and often ad hoc. He outlined the objectives, outputs, format and content of the present expert meeting. Background documentation for the meeting were highlighted with special reference to the consultancy report "Proposals for Strengthening FAO's Role Regarding Forest Fire Management", mentioned above; technical papers by FAO, ITTO and other organisations made available; case studies prepared in advance by experts; Agreements and operational plans used by collaborating countries, and submissions by international agencies in line with the objectives of the meeting. Mr Sène concluded by stressing the need for
cooperative and collaborative approaches in preparation of components of an action plan, with particular reference to capacity building and mechanisms in forest fire management and legal instruments for emergency responses. He emphasized that FAO was seeking expert advice on the key issues and recommendations for both immediate and longer term implementation and working groups were designed to facilitate these outputs (see Annex 3 and Annex 4).

V. CONCLUSIONS AND RECOMMENDATIONS

Preamble

25. The experts noted that many previous consultations and meetings on forest fire management had consistently developed a number of recommendations which still awaited effective implementation. What was urgently needed today was an action plan specifying responsibilities and time frames for completion of the tasks at hand.

26. Stressing that forest fire management was an integral component of sustainable forest and land management, the experts noted the following:

(i) The FAO Meeting on Public Policies Affecting Forest Fires, 1998, recommended that countries adopt sustainable forest and land use policies and practices to manage the flammability of forests;

(ii) The vital existing roles and potential for the participation of communities in forest and vegetation fire management was a critical consideration for sustainability;

(iii) If sustainable forest management practices were not established, then emergency responses of any kind would ultimately fail;

(iv) On-going international criteria and indicators processes for sustainable forest management included indicators related to forest fires and the FAO coordinated Global Forest Resources Assessment database was being expanded to incorporate sustainability indicators;

(v) Widespread emergencies in recent years in all regions of the world underscored the importance of having fire management cooperation and international Agreements on mutual assistance and emergency response established in advance of fires;

(vi) Prevention implied the actions in the fields of public awareness, equipment and infrastructure, enforcement and fire fuel management;

(vii) There was an urgent necessity for countries to activate strong and effective fire prevention measures. It was better to prevent a wildfire than fight one; and

(viii) Member countries needed to develop effective emergency response procedures internally, so that they could more effectively receive and efficiently use outside assistance.

Key Issues to be Addressed

27. The experts noted that unmanaged and unplanned forest and other vegetation fires had negative impacts on human health and livelihoods, availability of forest products and services, biological diversity, and possibly climate change. In spite of allocation of increased resources, the number, scale and impact of forest and vegetation fires had increased in many countries in recent times.

28. The experts further noted that existing national organisations and international agencies and mechanisms, some of them with long-standing and significant experience, had struggled to address the complexities and problems of forest fire management. In spite of this, much of the work and efforts of reviews, missions, studies and development of new international structures had not translated effectively into meaningful and sustained improvement in the management of forest fires around the world.
Major Constraints and Challenges

29. The experts stressed that the main reasons identified for the above situation were:

(i) Lack of national land-use and fire policies and their implementation, and lack of recognition and compliance with related international processes and conventions;

(ii) Low level of awareness among policy makers, decision makers and the public, which led to institutions lacking adequate resources, focus and capacity;

(iii) Insufficient human resource capability in most aspects of forest fire management due to inadequate education and training;

(iv) Inadequate awareness, dissemination and understanding of existing information and experiences, lack of socialisation of information and know-how (e.g. early warning systems, use of prescribed fire);

(v) Lack of basic quantitative and qualitative information and data, which provided a relevant, useful and often necessary basis for the interpretation and meaningful analysis and use of forest fire statistics;

(vi) Lack of appropriate bilateral and multi-lateral Agreements for mutual assistance prior to fire emergency events.

Recommendations

30. The experts recognized the fundamental requirement for effective sustainable forest and land management policies and practices. To achieve this objective, an overriding priority was the establishment of Agreements, protocols and institutional capacity to better share international fire management resources, knowledge and understanding.

31. The Expert Meeting requested FAO, ITTO and collaborating agencies, to support action as set out in recommendations below:

32. Policy

(i) Identify relevant existing policy instruments, mechanisms and networks which could support and strengthen commitment and action on forest fire management; and

(ii) Support activities that bring local people, professionals and policy makers together and build awareness and capacity.

33. Technical Support

(i) Facilitate networking and collaboration between countries through identifying or creating national focal points;

(ii) Exchange experiences through institutional collaboration;

(iii) Provide technical support to enhance management of forest resources that include fire prevention measures as an integral part of such action;

(iv) Improve capacity and capability to prepare for forest fires, particularly in countries that have existing gaps in attributes such as laws, policy, planning, practices and monitoring;

(v) Catalyze action in providing technical support to member countries in development of Agreements\(^2\) at bilateral and regional levels (see Annex 5, and Annex 6);

\(^2\) Agreements for mutual assistance in preparation for, and emergency response to, fire events.
(vi) Strengthen in-house human and non-staff resources to respond to increasing issues and actions in forest fire management.

34. Information and Data Bases

(i) Make information available on techniques, networks, resources, collaboration and approaches to forest fire management;

(ii) Develop a data standard within the Forest Resource Assessment framework to address the requirements of national and international fire management reporting needs;

(iii) Review on-going activities in forest fire management by international and regional organisations to clarify linkages, facilitate collaboration and identify gaps. Key factors are land use policies and practices, community based fire management, knowledge, training, public awareness, institutional arrangements;

(iv) Synthesize and support the preparation of country profiles which provide international collaborators and donors an insight into institutional set-up and operational responsibilities at national level, as well as basic information without which outside assistance will not be effective or even possible. Aspects in such country profiles to include reference to: political will, governance, security, socio-economic, climate, vegetation, demography, resources (personnel, equipment, funds, information and infrastructure);

(v) Establish an international forest fire information centre to facilitate the sharing of world-wide information among all partners regarding such issues as: Agreements, resource availability, contacts at regional, eco-regional, global levels, etc. This centre should provide real-time situation reports and conditions. In addition, the centre should be institutionalised in order to play an advisory role in assisting countries to develop Agreements and respond to emergencies.

35. Emergency Response Agreements

(i) Develop emergency response Agreements bilaterally and multilaterally (at regional or global levels, as appropriate); details will vary depending on considerations that may vary from region to region;

(ii) Encourage forest fire management cooperation, and catalyze and support the development of new emergency response Agreements, making full use of already existing regional and other mechanisms, such as those in the CILSS, SADC, Mediterranean, Baltic, South-East Asia, Central America, Caribbean, South America and other regions, as yet to be identified;

(iii) Compile an inventory of existing emergency response Agreements to serve as models for others. Guidelines or models should be prepared for developing such Agreements and related operating plans and protocols. FAO could distribute a questionnaire soliciting opportunities for new Agreements;

(iv) Activate a task force to track and monitor progress in the development of Agreements and collaboration and develop a detailed action plan that defines time frames, responsibilities and costs to implement the recommendations of the International Expert Meeting;

(v) Develop funding mechanisms to encourage vigorous action that leads to the development of emergency response Agreements;

(vi) Establish compatible incident management organisation systems in countries to facilitate the integration of international resources; such mechanisms need to be compatible between them, but do not need to be identical;

3 See Annex 8 for a preliminary draft action plan and timeframe.
(vii) Review and expand a “Fire Season Table”, for all countries to show complementing and overlapping fire seasons; the purpose of this information would be to determine availability of resources from other countries, in cases of emergency (example given in Annex 7.);

(viii) Continue and strengthen the update and dissemination of forest fire management related information in collaboration with organizations to be determined;

(ix) Develop training and briefing programmes for emergency response teams, based upon on-going experiences; and

(x) Catalyze and support the development of emergency simulation response exercises among countries prior to emergency situations arising.

36. Collaborating Agencies

(i) Participate in the existing initiatives and mechanisms such as the Interagency Task Force Working Group on Wildland Fire of the International Strategy for Disaster Reduction (ISDR)\(^4\); the United Nations International Search and Rescue Advisory Group (INSARAG)\(^5\); the Joint United Nations OCHA/UNEP Environment Unit\(^6\), the Global Fire Monitoring Centre (GFMC), and actively support the development of their programmes, and facilitate linkages within the Collaborative Partnership on Forests (CPF)\(^7\); and

(ii) Prepare a preliminary action plan and time schedule (initially without prioritization) for implementing the above recommendations (see Annex 8.).

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\(^4\) Mandate to prevent and reduce natural disasters, including wildland fires.

\(^5\) Mandate to coordinate on-site response to emergencies, including wildland fires. An International Search and Rescue Convention is currently being prepared to explicitly include a wildland fire emergency component.

\(^6\) Mandate to coordinate international response to natural disasters, including wildland fire.

\(^7\) Mandate to advance implementation and monitor progress in agreed actions for sustainable forest management and to enhance international cooperation on forest-related issues, including wildland fires.
ANNEX 1.

FAO/ITTO INTERNATIONAL EXPERT MEETING ON FOREST FIRE MANAGEMENT

FAO Headquarters, Rome (Italy)
Philippine Room (C277/281) - 7 to 9 March 2001

AGENDA

Wednesday 7 March
08.30 Registration
09.30 Opening of the Meeting (Introductory Statements by FAO and ITTO)
10.00 Election of Chairman and Vice-Chairman, adoption of Agenda
10.10 Introduction by FAO: objectives, working arrangements, expected outputs
10.20 Introduction of participants
10.30 Coffee
11.00 Presentation of Special Study on Forest Fires prepared within the framework of the
    Forest Resources Assessment Programme (R.B. Mutch, J.G. Goldammer)
11.20 Discussion
11.40 Report on Consultancy “Proposals for Strengthening FAO’s Role Regarding
    Forest Fire Management” (J. Troensegaard)
12.00 Discussion
12.30 Lunch
14.00 Interventions by experts and resource persons on key action of relevance to meeting objectives
15.30 Coffee
16.00 Reports on International Agency activities and collaboration
17.45 Reception (Aventino Room, 8th Floor Bldg B)

Thursday 8 March
09.00 Joint Session: discussion of issues to be addressed by Working Groups.
    Division into two Working Groups
09.30 Working Group Sessions
15.30 Joint Session: Presentation work by the two Working Groups
16.00 Discussion on Working Group reports

Friday 9 March
a.m. Report writing
14.00 Discussion of draft Conclusions and Recommendations
15.30 Coffee
16.30 Closing

8 The Experts decided to focus the work as follows: Working Group 1: Strengthen Institutional
Capacity and Mechanisms for International Cooperation in Forest Fire Management (Philippine Room,
C-277); Working Group 2: Inter-Country Agreements to Share Resources in Response to Emergencies (Nigeria Room, C-215).
ANNEX 2.

FAO/ITTO INTERNATIONAL EXPERT MEETING ON FOREST FIRE MANAGEMENT

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10 A number of other colleagues from the Forestry Department attended the Opening and part of the sessions of the meeting.
ANNEX 3.

Report of Working Group 1:
Human Resources Development, Strengthening Institutional Capacity and Mechanisms for International Cooperation in Forest Fire Management

The working group addressed issues, constraints and recommended actions to strengthen existing mechanisms, networks and institutional capacity (including human resource development) to enhance cooperation and collaboration in forest fire management at bilateral, regional and international levels. The role of national, regional and international agencies were taken into consideration.

Working Group 1 - Members

Goldammer, J.G. (Germany)
Moore, P.F. (IUCN/WWF)
Musa, S. (Malaysia)
Pontani, D. (Italy)
Stocks, B. J. (Canada)
Troensegaard, J. (Denmark)
Viana Soares, R. (Brazil)
Xanthopoulos, G. (Greece)
Efransjah (ITTO)
Séné, E. H. (FAO, Director, FOR)
Palmberg-Lerche, C. (FAO, Chief, FORM)
Carle, J. B. (FAO, FORM)

Observer (part time)
Mr. Dario Morini (see Footnote 8)

Key Issues Addressed – What?

- The number, scale and impact of forest and vegetation fires had increased in recent times. With negative impacts on livelihoods, human health, biodiversity, forest services and possibly climate change;
- The existing national organisations and international mechanisms, some of them with significant experience, had struggled to address the problems and complexities of forest fire management; and
- Much of the work and effort of reviews, missions, studies and international structures had not translated effectively into meaningful and sustained improvement in the management of forest fire around the world.

Major Constraints and Challenges – Why?

Some of the main reasons identified for the above situation were:

- Lack of national fire policy and its implementation, and lack of recognition and compliance with related international processes and conventions;
- Low level of awareness among policy makers, decision makers and the public, which led to inadequately resourced institutions lacking adequate focus and capacity;
• Insufficient human resource capability in most aspects of forest fire management due to inadequate education and training;

• Existing information and experience was not well known, effectively distributed, understood or socialised (e.g. early warning systems, use of prescribed fire);

• Fire statistics had not always supported meaningful analysis. Both quantitative and qualitative information and data, which was relevant and useful was required.

Recommended Actions – How to overcome?

**FAO/ITTO were requested to support the work with relevant agencies as set out in the following points:**

- Information be made available on techniques, networks, resources, collaboration and approaches to fire management;

- Develop a data standard that addresses the requirements of national and international fire management reporting needs within the Forest Resources Assessment framework;

- Facilitate networking and collaboration between countries through identifying or creating national focal points;

- Exchange experience through institutional twinning;

- Review ongoing activities in forest fire management by international and regional organisations to clarify linkages, facilitate collaboration and to identify gaps. Key factors being land use policies and practices, knowledge, training, public awareness, institutional arrangements;

- Identify relevant existing policy level Agreements, mechanisms and networks which could support and strengthen commitment and action on forest fire management;

- Support activities that bring local people, professionals and policy makers together and build awareness and capacity;

- Synthesise and support the preparation of country profiles that provide international collaborators and donors and insight into institutional set up, operational responsibilities, and provide basic information without which outside assistance will not be effective or even possible. Aspects to include: political will, governance, security, socio-economic, climate, vegetation, demography, resources (personnel, equipment, funds, information and infrastructure);

- Improve capacity and capability to prepare for forest fires, particularly for countries that have existing gaps in these attributes such as laws, policy, plans, practices and monitoring; and

- FAO strengthen its regular programme activities in the field of forest fires through appointment of a full time Forest Fire Officer at FAO Headquarters.

**Collaborating agencies (co-ordinating with existing initiatives and mechanisms) – Who?**

Noting that a large number of institutes, agencies and mechanisms were active in the field of forest fires, operating at various levels and with different foci, scope, and level of resources, FAO and ITTO, together with partners should discuss and review forest fire-related initiatives, activities and arrangements. These included, among others,
International agencies and organizations, such as:

- UNESCO
- WHO
- UNEP
- UN University
- UN/ECE Trade Division
- World Bank
- IUCN
- WWF
- GFMC

International mechanisms, such as:

- UNFF and the Collaborative Partnership on Forests
- Interagency Task Force for Disaster Reduction (ISDR), Working Group Wildland Fire
- INSARAG
- OCHA

Regional mechanisms or policy frameworks, such as:

- Regional Forestry Commissions coordinated by FAO
- Silva Mediterranea
- CIHEAM
- ECE/FAO/ILO Team of Specialists on Forest Fire
- Baltic Fire
- SADC, CILSS, IGADD, ASEAN, CCAD

**Scheduling and Cost Estimates**

The Group recognised the need to develop a time scale for recommended priority action, and to develop corresponding cost estimates or approximations, the Group requested that FAO, in collaboration with ITTO and other international partners, develop a provisional framework plan for further discussion and elaboration.
Report of Working Group 2: Inter-Country Agreements to Share Resources in Emergencies

The working group addressed issues, constraints and recommend actions relating to inter-country Agreements to establish operational procedures and share resources, information, personnel and equipment in situations of emergency. This would include review of the feasibility to share heavy land and aerial equipment and prospects for development on a wider geographic basis.

Working Group 2 (Legal Instruments)

Balatsos, P. (Greece)
Bekele, M. (Ethiopia)
Cedeño Sánchez, O. (Mexico)
Heine, J. (South Africa)
Kizmaz, M. (Turkey)
Mutch, R. (USA)
Sanhueza, P. (Chile)
Sneeuwjagt, R. (Australia)
Vélez Muñoz, R. (Spain)
Paveri, M. (FAO, Chief, FONP)
Mekouar, A. (FAO, LEGN)
Allard, G. (FAO, FORM)
Malagnoux, M. (FAO, FORC)

Forest Fire Emergency Cooperation Agreements

The Group identified the existence of a number of Forest Fire Emergency Co-operation Agreements at various levels, including:-

- in-country Agreements
  - central level
  - local level
- bilateral Agreements; and
- multilateral Agreements

A list of Agreements known to exist and referred to by the experts is given in Annex 5.

It will be necessary to use the comprehensive and proven instruments as base documents for other countries seeking or providing assistance to derive their own Agreements suited to their unique circumstances.

Key contents to be considered by countries as a base for preparation of their Agreements are listed in Annex 6.

RECOMMENDATIONS

Considering that:

Forest fire management was closely linked to sustainable forest management practices;

Member countries were strongly encouraged to establish sustainable forest management policies and practices to reduce the flammability of forests. If sustainable practices were not established, then emergency responses of any kind would ultimately fail;

Member countries were encouraged to activate strong and effective fire prevention campaigns. It was better to prevent a wildfire than fight one. Prevention implies public awareness, equipment and infrastructure preparation, enforcement and fire fuel management;
Member countries were encouraged to develop effective emergency response procedures internally, so that they would be able to more effectively receive outside assistance;

Widespread emergencies in recent years in all regions of the world had underscored the importance of having International Agreements established in advance of fires;

Efficient emergency assistance required prior planning among all parties due to the nature of forest fires to prepare personnel, organisation, equipment, procedures, etc.

It was recommended that FAO and ITTO and other relevant partners:-

- Develop Agreements bilaterally and multilaterally (at regional or global levels, as appropriate), with due consideration to conditions which may vary region by region;

- Encourage the development of new Agreements through existing regional and other mechanisms, taking into consideration experiences to date;

- Provide technical support to member countries in development of Agreements at national and regional levels;

- Compile an inventory of existing Agreements to serve as models for others. In this regard, FAO may consider distributing a questionnaire soliciting opportunities for new Agreements;

- Activate a task force to track and monitor progress in the development of Agreements and develop an action plan that defines objectives, outputs, activities, inputs, costs, timeframes and responsibilities to implement the recommendations of the International Expert Meeting;

- Review possibilities for developing appropriate funding mechanisms to encourage action leading to the development of Agreements;

- Assist countries to describe and establish mutually compatible incident management organisation systems to facilitate the integration of international resources;

- Review and apply regional or eco-regional, or global, “Fire Season Tables”, showing coincidence of overlapping fire seasons in determining availability of international resources (example given in Annex 7);

- Review the possibilities to coordinate the tasks of information updates and sharing;

- Review recommendations and identify appropriate organizations and agencies to take action;

- Develop training, technical exchanges and briefing programmes between countries in non-crisis situations in preparation for emergency response;

- Develop emergency simulation response exercises among countries;

- Assist to establish an international forest fire information centre to facilitate the sharing of worldwide information among all partners regarding such items as: Agreements, resources availability, contact points, etc. This centre would provide real time situation reports and conditions. In addition, the centre would be institutionalized to provide an advisory role in assisting countries to develop Agreements and respond to emergencies;

- Disseminate information on issues and experiences in the use of volunteers, local communities and other resources in prevention and remedial action in forest fire management;

- Disseminate information and support training in the application of airborne and remote sensing technologies as tools in integrated fire management.
**ANNEX 5.**

Some Existing Agreements for Mutual Assistance and Emergency Response\(^\text{11}\)

<table>
<thead>
<tr>
<th>Agreement Type</th>
<th>Country</th>
<th>Agreement Partner Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In-country</strong></td>
<td>USA</td>
<td>National, with individual States (National Wildfire Coordinating Group National with Military)</td>
</tr>
<tr>
<td></td>
<td>Mexico</td>
<td>Federal Government with individual States Federal (SEMARNAP) with Military</td>
</tr>
<tr>
<td></td>
<td>Chile</td>
<td>National Government with Regions National Government with Private Sector Bilateral Agreements between Regions Bilateral Agreements between Regions and Private Sector Private to Private Sector Agreements Other Agreements with Armed Forces, Fire Brigades etc</td>
</tr>
<tr>
<td></td>
<td>Australia</td>
<td>Federal Government with individual States (large emergencies) State to State agreements</td>
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<tr>
<td></td>
<td>South Africa</td>
<td>Agreements with Military Agreements between Provinces and National Government (under formulation)</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>Prevention done within Forestry Sector Fire Suppression under Civil Society (Military Corps) Centralized authority decides how, without formal Agreements Local Authorities have local mechanisms to share resources</td>
</tr>
<tr>
<td></td>
<td>Ethiopia</td>
<td>Individual Regions responsible Federal level have funds for Emergency Plans to share resources</td>
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<tr>
<td></td>
<td>Spain</td>
<td>National Coordinating Committee establishes rules for Sharing Central Government resources to fight fire when Autonomous Region resources need Bilateral Agreements between Regions (principle of single command, each agency covers costs of services provided) Agreements with Armed Forces</td>
</tr>
<tr>
<td></td>
<td>Greece</td>
<td>Resources centrally allocated in cooperation with Districts for fire suppression Prevention: National leadership with funding to Regions Involvement of Local Authorities through personnel, volunteers Regions have Emergency Plans communicated to National Government</td>
</tr>
<tr>
<td><strong>Bilateral Agreements</strong></td>
<td>Spain</td>
<td>Portugal, France and Morocco (Aircraft and equipment), West Mediterranean Specific Coordinating Centre in each Country, Cost paid by receiving countries</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>USA with Mexico USA with Canada USA and Canada with Australia and New Zealand (under preparation)</td>
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<td>Chile</td>
<td>Chile with Argentina</td>
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<td></td>
<td>Turkey</td>
<td>Central Government, Memo of Understanding with Other Countries for Fire Resources, allocated centrally and distributed at the local level</td>
</tr>
</tbody>
</table>

\(^\text{11}\) Agreements list derived by Expert Consultative Working Group 2.
### Provisional Legal and Operational Checklists for Developing Forest Fire Emergency Agreements (Bilateral or Multi-lateral)

#### I National Legislation promoting International Agreements and establishing the framework for such Agreements (This requirement may vary by country in terms of process)

A. An example exists between Canada and USA  
B. An example exists between USA and Mexico

#### II Annual Operating Plan specifying details of how to accomplish emergency assistance.

#### III Protocols to promote technical exchanges of personnel between countries (a non-emergency assistance)

### I National Legislation or Other Enabling Protocols for Establishing Contents (Elements) for Agreements:

1. Establish Agreements between Governments for emergency assistance if they do not exist. Determine appropriate channels for establishing Agreements. This will differ by country as how this is to be done.
2. Identify the Central Agency or Contact Point to coordinate the exchange of resources.
4. Specify type of resources that may be sent or received.
5. Specify how costs will be allocated. Usually Receiving Party pays.
6. Specify time for reimbursements.
7. Specify who controls resources.
8. Specify how to cover losses and damages.
9. Specify the process for recalling resources to return them to sending party.
10. Specify Liability arrangements for damages (both ways). Fatal accidents, insurance, etc.
11. Specify qualifications of people.
12. Specify how to mediate disputes.

**Note:** Principle for success: Good will and practical solutions are essential in developing Agreements

### II Checklist for Annual Operating Plan to Provide Emergency Fire Assistance (Bilaterally or Multi-laterally)

1. State purpose of assistance.
2. Cite authorities.
3. Detail general procedures

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12 Provisional Checklist Derived by Expert Consultative Working Group 2.
(i) Who requests (how?)
(ii) Reimbursements
(iii) Identify types of resources
(iv) Personnel

(a) Daily rate and pay
(b) Lodging
(c) Meals and travel
(d) Medical costs, insurance coverage
(e) Safety, health and welfare
(f) Safety equipment
(g) Who provides liaison?
(h) Compensation claims for death and injury
(i) Specify indemnity procedures

4 Equipment and supplies.
5 Billing and payment procedures and currencies.
6 Situation reporting daily.
7 Authorization, signatures.
8 Process for re-call of resources.
9 Customs considerations.
10 Resolution of logistical limitations and constraints.

Note 1: Successful emergency assistance requires careful prior planning and review.
Note 2: Elements may need to be adapted to suit the conditions existing in different countries

III Protocols for Technical Exchanges of Personnel Among Countries

1 Authority
2 Qualifications and Objectives
3 Requests
4 Procedures and Payment (loss, damage, injury)
5 Documentation report that evaluates the exchange
6 Signatures for Approval

Additional Notes:

Agreements, Operational Plans and Protocols could be to:

1 Provide for exchanges of technical information, not people, on a recurring basis.
2 Share information regarding individual serious fires to other partners.
3 Exchange information regarding technical support in fighting fires from private vendors who supply equipment.
4 Consider contract requirements for aircraft.
5 Determine responsibilities and opportunities for providing technical assistance to developing countries. Identify countries or organizations to provide such assistance.
## ANNEX 7.

### SAMPLE OF FIRE SEASONS ON DIFFERENT CONTINENTS

<table>
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<tr>
<th>Country</th>
<th>Jan</th>
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</table>

- **Dark Grey**: Difficult Fire Season - Help May be Needed from other Countries
- **Medium Grey**: Generally Lesser Danger
- **Light Grey**: Low Danger, Help May be Offered to Other Countries

This table represents the recording of fire seasons by experts attending the meeting and is reproduced as an example only. The experts recommended that a schedule on these lines be prepared to evaluate the high, medium and low danger periods in all countries and regions as a first step to gauge potential for giving and/or receiving international assistance, to be requested and organizationally prepared in advance of high risk periods.

13 Selection of “Fire Seasons” derived by participants at the Expert Consultative Group Meeting.
ANNEX 8.

PROVISIONAL ACTION PLAN AND SCHEDULE FOR IMPLEMENTATION OF RECOMMENDATIONS
(In accordance with expert meeting recommendation, no attempt was made to prioritize actions)

<table>
<thead>
<tr>
<th>Recommended Actions</th>
<th>Provisional Time Schedule of Actions by Month- starting April 2001</th>
</tr>
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<tbody>
<tr>
<td>Policy</td>
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<td>Collaborating Agencies</td>
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Legend

Approximate Duration of Activity
Continuous Activity