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South Sumatra Forest Fire Management Project

Jl. Jenderal Sudirman No. 2837 KM 3,5 – PO Box 1229

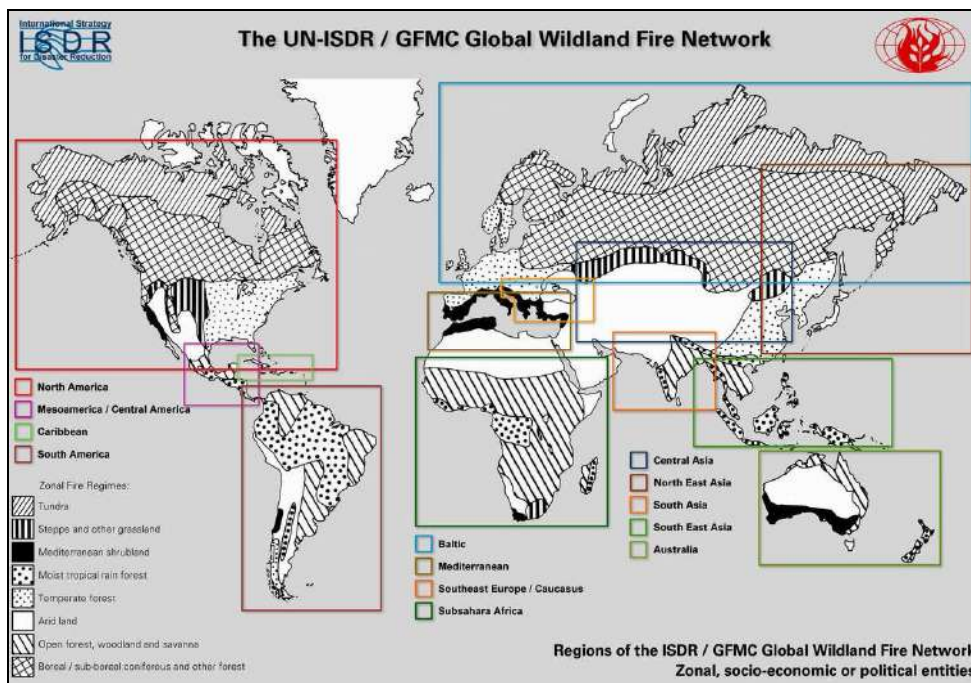
Palembang 30129 – Sumatera Selatan – Indonesia

Telp: (62) 711-377821, Fax: (62) 711-353176

Email: ssffmp.eu@telkom.net



International Cooperation in Fire Management



13 August 2007

Johann G. Goldammer

PREFACE

The South Sumatra Forest Fire Management Project (SSFFMP) is a technical co-operation project jointly funded, in terms of the financing memorandum IDN/RELEX/1999/0103, by the European Commission and by the Government of the Republic of Indonesia through the Ministry of Forestry (MoF).

This report has been completed in accordance with the project Overall Work Plan and is aimed at providing recommendations for the authorities of Sumatera Selatan and national authorities to take initiative and responsibility of international cooperation in fire management after the termination of the EU-supported project.

This report has been prepared with financial assistance from the Commission of the European Communities. The opinions, views and recommendations expressed are those of the author and do not necessarily reflect the official opinion of the Commission.

The report has been prepared by Prof. Dr. Johann G. Goldammer, Global Fire Monitoring Center.

The report is acknowledged and approved for circulation by the Project Co-Directors when duly signed below.

Palembang, 13 August 2007

Dr. Ir. Dodi Supriadi
National Co-Director

Dr. Karl-Heinz Steinmann
EU Co-Director



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EXECUTIVE SUMMARY

The South Sumatra Forest Fire Management Project (SSFFMP), a co-operation project between the Government of Indonesia and the European Union, implemented between 2003 and 2007, successfully facilitated the establishment of a coordinated system of fire management at the province, district, sub-district, and village level throughout South Sumatra. During the lifetime of the project local communities, private sector companies and government agencies worked together with the overall objective to reduce the negative impact of fires on the natural and social environment. In the global context, excessive fire application in land use and land-use change and resulting wildfires in Indonesia, in the neighbouring countries of South East Asia and in other regions in the world have severe transboundary impacts on the environment and societies, i.e. the global atmosphere and climate, human health and human security. This situation and the expected trends of climate change are challenging the international community to address the problem of fire-induced environmental degradation collectively and collaboratively.

At the end of the active phase of SSFFMP in 2007 the project counterparts and other agencies and parties involved in South Sumatra or at national level needed to be informed and advised on possibilities and needs of a future involvement of the Province of South Sumatra and the national level in international cooperation in fire management. International cooperation and networking in fire management is crucial for harmonizing fire management approaches and creating synergies between countries. Recently international voluntary guidelines have been developed for capacity building in fire management and for procedures for cooperation (mutual assistance) in fire emergency situations. This report provides an introduction to existing wildfire agreements and informal networking mechanisms applicable for Indonesia and ASEAN. In addition, the outcomes of the 4th International Wildland Fire Conference (Sevilla, Spain, May 2007) are presented for consideration by provincial and national policy makers. The transfer of project documents and the project website respectively to the Global Fire Monitoring Center (GFMC) and to another dedicated website (the GFMC website cannot run the SSFFMP dynamic pages) will ensure that the expertise gained by the project can be shared with other provinces and countries.

With the transition of SSFFMP to the Province of South Sumatra the leaders in the province and at national level are challenged to further utilize the expertise gained by the project. The project expertise is constituting competence and thus an important capital for participating in international



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processes, some of which may provide high-return opportunities – the contribution of fire management to reduce terrestrial carbon emissions or increase terrestrial carbon sequestration and selling Voluntary Emissions Reduction (VER) credits into the global markets.

RINGKASAN EKSEKUTIF (INDONESIAN SUMMARY)

South Sumatra Forest Fire Management Project (SSFFMP) yang merupakan proyek kerjasama antara Pemerintah Indonesia dengan Uni Eropa dan telah berjalan dalam rentang waktu antara 2003 dan 2007, telah berhasil memfasilitasi pembentukan system pengelolaan kebakaran terkoordinasi di tingkat propinsi, kabupaten, kecamatan, dan desa di Sumatera Selatan. Selama rentang waktu implementasi proyek, masyarakat local, perusahaan swasta, dan instansi pemerintah bekerja sama dengan tujuan yang sama, yaitu menekan dampak negative kebakaran terhadap lingkungan alam dan sosial. Ditinjau dari sudut global, penggunaan api berlebihan dalam tataguna lahan dan merobah tataguna lahan sehingga menimbulkan kebakaran tidak terkendali di Indonesia dan dampak bagi negara-negara tetangga serta bagi dunia, menyebabkan timbulnya dampak lintas batas yang serius bagi lingkungan dan masyarakat, yaitu atmosfir dan iklim global, kesehatan dan kenyamanan masyarakat. Situasi ini dan kecenderungan perubahan iklim yang terjadi mendorong komunitas internasional baik secara kolektif dan bersama untuk memberikan perhatian terhadap persoalan degradasi lingkungan akibat kebakaran.

Pada tahap akhir SSFFMP tahun 2007, pihak dan dinas pendamping serta para pihak yang terlibat di Sumatera Selatan atau di tingkat nasional perlu diberi informasi dan saran tentang kemungkinan dan perlunya keterlibatan Propinsi Sumatera Selatan dan juga Indonesia (nasional) dalam kerjasama pengelolaan kebakaran hutan secara internasional. Kerjasama dan jaringan kerja (networking) internasional diperlukan dan penting untuk harmonisasi berbagai pendekatan pengelolaan dan untuk membangun sinergisme antar negara. Baru-baru ini telah dikembangkan *Voluntary Guidelines* tentang Pembangunan Kapasitas Pengelolaan Kebakaran dan Prosedur Kerjasama (saling menguntungkan/*mutual assistance*) dalam situasi darurat kebakaran. Laporan ini menyajikan suatu pengantar tentang berbagai persetujuan tentang kebakaran dan mekanisme kerjasama informal yang bisa diterapkan di Indonesia maupun ASEAN. Selain itu, luaran (*outcomes*) hasil *The 4th International Wildland Fire Conference* di Sevilla, Spanyol pada bulan Mei 2007 juga disajikan sebagai bahan pertimbangan bagi pengambil kebijakan baik pada tingkat propinsi maupun nasional. Pengalih-tanganan dokumen-dokumen dan *website* proyek kepada *Global Fire Monitoring Center (GFMC)* akan menjamin bahwa berbagai keahlian yang telah dikembangkan oleh proyek dapat disebarluaskan ke propinsi dan negara lain.



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Dengan dialitangkannya SSFFMP kepada Propinsi Sumatra Selatan, maka para pimpinan baik pada tingkat propinsi maupun nasional dituntut untuk menfaatkan seluruh keahlian yang telah dikembangkan oleh proyek. Keahlian-keahlian tersebut menggambarkan kompetensi dan merupakan modal penting untuk ikut berpartisipasi secara internasional. Beberapa diantaranya dapat memberikan umpan balik yang sangat menguntungkan, misalnya kontribusi pengelolaan kebakaran hutan dalam menekan emisi karbon atau meningkatkan sequestrasi karbon di daratan (terrestrial) dan menjual Voluntary Emissions Reduction (VER) kepada pasar global.

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1 Objective of the mission

The South Sumatra Forest Fire Management Project is a co-operation project between the Government of Indonesia and the European Union. The project aims to aid and facilitate the establishment of a coordinated system of fire management at the province, district, sub-district, and village level throughout South Sumatra in which the local communities, private sector companies and government agencies work together to reduce negative impact of fires on the natural and social environment. At the end of the active phase of the project in 2007 the project counterparts and other agencies and parties involved in South Sumatra or at national level need to be informed and advised on possibilities and needs of a future involvement of the Province of South Sumatra and the national level in international cooperation in fire management. For this purpose the consultancy was aimed at:

- Providing an overview of existing wildfire agreements, in particular in the Asian region, and identify relevant parts of the agreements applicable for Indonesia and ASEAN
- Providing information and inputs for fire management from experiences in other continents and countries
- Fostering networking between wildfire agreement stakeholders
- Summarizing results and recommendation from the Wildfire Conference in Sevilla which are of relevance to Indonesia
- Planning with the SSFFMP webmaster team the transfer of documents to the GFMC website
- Socialise the findings to the stakeholders

At the end of the active phase of the project in 2007 a termination workshop "Lokakarya berbagi pengalaman, pengetahuan dan keterampilan dalam pengelolaan kebakaran hutan dan lahan", was held in Palembang, Sumatera Selatan, 7-8 August 2007. The workshop was used as a platform for providing and discussing information on international cooperation in fire management, thus to socialise the findings to the stakeholders.

This report is aimed at providing / documenting the necessary background information on international cooperation in fire management, allowing the stakeholders to contact relevant international institutions and networks for future international activities.

The mission was prepared and conducted by compiling information on international arrangements on cooperation in fire management (existing legally binding agreements and non-legally binding arrangements) that are in place is currently being developed.

2 Introduction

The report by the Global Fire Monitoring Center (GFMC) to the Food and Agriculture Organization of the United Nations (FAO) on “Fire Management – Review of International Cooperation”¹ in its introduction is stating:

“Over the past decade, many regions of the world have experienced a growing trend of excessive fire application in the forestry-agriculture interface, land-use systems and land-use change, and an increasing occurrence of extremely severe fires. Some of the fire effects are trans-boundary, for example smoke and water pollution and its impacts on lives, human health and safety, livelihoods, material possessions, loss of biodiversity or site degradation at a landscape level leading to desertification or flooding. The depletion of terrestrial carbon by fires burning under extreme conditions in some vegetation types, including organic terrain in peat land biomes, is one of the driving agents of disturbance of global biogeochemical cycles, notably the global carbon cycle. Observed and modelled consequences of regional climate change suggest an alteration of fire regimes with consequences on ecosystem degradation and depletion of terrestrial carbon.

Although this trend is revealed by a wealth of scientific knowledge on the cultural, social, economic and environmental dimension of fire in the Earth system, the gaps in fire management capabilities from local to global levels are evident.

The current situation and the expected trends are challenging the international community to address the problem collectively and collaboratively.”

The first part of this statement is particularly valid for the situation in Indonesia and its neighbour countries. The consequences of excessive application of fire as well as wildfires cannot be considered exclusively as a national issue. The impacts of fires burning in South Sumatra and other provinces of Indonesia have impacts at global scale, affecting global biodiversity, atmosphere and climate.

The second and third paragraphs of the statement are equally valid for the situation in Indonesia: Despite the efforts of research and technology transfer the fire management capabilities in Indonesia are limited.

¹ GFMC / FAO 2006. Fire Management – Review of International Cooperation. Fire Management Working Paper FM 18E, FAO Forest Resources Development Service, December, 2006, 45 pp.



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Given the local, national and international interests to reduce the negative impacts of excessive fire application on the environment and humanity, collective and collaborative action has to be taken, especially in those sectors of fire management in which other partners (countries, national and international organizations) have a specific well-developed expertise in fire science and in operational fire management systems and approaches and is available to be utilized by countries worldwide.

Other arenas of cooperation include sharing of resources that cannot be afforded by each individual country. These include, for instance, costly fire suppression assets such as aerial firefighting equipment. Other systems include spaceborne satellite systems for the early warning, detection, and monitoring of fire, including monitoring of fire impacts.

As an ASEAN member State Indonesia has the opportunity to actively contribute to and benefit of the ASEAN Agreement on Transboundary Haze Pollution. However, the ASEAN mechanisms and efficiency are limited to meet all needs of its member states. Thus, Indonesia at national and provincial levels should seek active involvement and cooperation with neighbour countries and neighbour regions, as well as those international arrangements, which will provide opportunities for financial and technical cooperation in fire management.

With the material provided in this report, in conjunction with *in-tandem* report on International Systems and Components (by A.A. Hoffmann), the partners in South Sumatra and at national level should seek contact, synergies and opportunities in enhancing international cooperation in fire management in order to improve the situation domestically, and contribute to solve the challenging problems arising from excessive fire use and wildfires.

3 International Wildfire Agreements

In accordance with the mission's objectives the existing wildfire agreements, in particular in the Asian region, were identified and checked if these or parts of these agreements would be applicable for Indonesia and ASEAN.

Screening of existing bilateral agreements and the ASEAN agreement revealed that that Indonesia has the option to foster international cooperation through either (a) legally binding bilateral and multilateral agreements, or (b) join and creatively participate in voluntary arrangements that provide ample opportunity for developing synergies with partners worldwide.

3.1 Legally binding bilateral and multilateral agreements

The screening of existing bilateral agreements, notably within the Asian region, revealed that the most suitable template for the development of bilateral agreements (between provinces, between nations) could be developed using the template recommended by the International Wildland Fire Summit in 2003. This template is provided in Appendix 1.

Concerning the multilateral agreement Indonesia has an opportunity to ratify the ASEAN Agreement on Transboundary Haze Pollution. Indonesia may also consider entering an agreement with the Australasian Region – a region which through the Australasian Fire Authorities Council (AFAC) is offering a platform for cooperation in the greater Asian-Pacific Region (for details and possibilities to contact AFAC: See list of Regional Wildland Fire Networks in Appendix 3).

Other agreements binding under international law that have been signed by Indonesia and under which the impacts of fire must be considered include the UN "Rio" Conventions (CBD, CCD, FCCC / Kyoto Protocol), and the Ramsar convention on Wetlands.

3.2 Non-legally binding, voluntary arrangements

For the non-legally binding arrangements the Indonesian provinces and the Central Government are encouraged to seek partnerships provided by the Fire Management Actions Alliance (Appendix 2), and the Global Wildland Fire Network (Appendix 3).

The Fire Management Actions Alliance has been launched in 2007 to stimulate improved fire management and reduce damage from fire worldwide. The focus is on the implementation of the Fire Management Voluntary Guidelines, which have been developed by the international community under the

coordination of the FAO, in response to the Ministerial Meeting on Forests in 2005 and the recommendations of the FAO Committee on Forestry of 2005 and 2007.²

The Voluntary Guidelines are providing an international framework, outline cross-sectoral issues, detail the principles and attributes needed to balance the social, cultural, environmental and economic dimensions of fire management, and prescribe key actions for the planning and management of fires. This framework supports the achievement of the Millennium Development Goals, particularly Goal 1 to eradicate extreme poverty and hunger, Goal 7 to ensure environmental sustainability and Goal 8 to develop a global partnership for development. For details on the application of the guidelines see the *in tandem* report (by A.A. Hoffmann).

The Charter of the Fire Management Actions Alliance is provided in Appendix 2.

The Global Wildland Fire Network, a voluntary network organized through Regional Wildland Fire Networks, operating under the UN International Strategy for Disaster reduction (UNISDR), provides a link from the various activities of the United Nations to the regions and countries. is described in the following section.

The proposed Forest Carbon Partnership Facility (see Section 5), which would be a precursor activity of a future, large-scale system of positive incentives for reducing emissions from deforestation and degradation and would finance capacity building to increase developing countries' capacity to harness a future system of incentives and pilot performance-based carbon purchases for avoided emissions (that can be scaled up reducing emissions from deforestation and land degradation), may offer an opportunity for South Sumatra / Indonesia to participate.³

Other voluntary agreements, in which Indonesia should actively participate, include, among other, the ASEAN Peatland Management Strategy (APMS).

² <http://www.fire.uni-freiburg.de/programmes/un/fao/fao.htm>

³ See World Bank presentation "Global Forest Alliance (GFA) and the Forest Carbon Partnership Facility (FCPF)" (presented at the 4th International Wildland Fire Conference, May 2007):
<http://www.fire.uni-freiburg.de/sevilla-2007/groups/Worldbank.pdf>

4 Exchange of fire management expertise at international level

4.1 The Global Wildland Fire Network

The exchange of fire management expertise with other countries and international organizations is imperative for ensuring transfer and application of state-of-the-art knowledge and methods in fire science and management. One of several options to collaborate with other countries is through the Global Wildland Fire Network (GWFN), a global voluntary arrangement under the auspices of the United Nations International Strategy for Disaster Reduction (UNISDR) (Appendix 3).⁴ GWFN is linked with the UN system through the UNISDR Wildland Fire Advisory Group, which is constituting an international cross-sectoral, UN inter-agency and international forum that has been set up to provide advice to policy makers at national and international levels.

The ASEAN Agreement on Transboundary Haze Pollution is constituting a regional network within the GWFN.⁵

However, there are limited institutional capabilities to actively promote cooperation between ASEAN member countries and other countries worldwide.

Thus, it is recommended that in addition to the ties to the ASEAN agreement Indonesia should actively seek for broader international cooperation in fire management. The Global Fire Monitoring Center (GFMC), which is serving as GWFN Secretariat and Coordinator of the UNISDR Wildland Fire Advisory Group, is available for providing assistance.

4.2 Recommendations of the 4th International Wildland Fire Conference

In May 2007 the 4th International Wildland Fire Conference in Sevilla, Spain, provided an opportunity of the Regional Wildland Fire Networks to meet and to discuss the overall fire situation in the regions. As a key result of the conference the representatives from the regions developed recommendations for action regionally and globally.

One of the joint regional sessions at the conference covered the South Asia and Southeast Asia and brought together representatives of the UNISDR Regional Wildland Fire Network. The regional findings recommended the following (the whole regional session report is provided in Appendix 4):

⁴ <http://www.fire.uni-freiburg.de/GlobalNetworks/globalNet.html>

⁵ <http://www.fire.uni-freiburg.de/GlobalNetworks/SouthEastAsia/ASEAN-FireNet.html>

create enabling environment from all possible donors for financial, technical and other resources to support ASEAN in the implementation of the ASEAN Agreement on Transboundary Haze Pollution;

To promote rehabilitation and sustainable use of peatlands and support the implementation the ASEAN Peatland Management Strategy (APMS); which comprehensively addresses not only the root causes of peatland fires and the associated transboundary haze pollution, but also other critical aspects including biodiversity conservation, socio-economic development, alternative livelihoods, and multi-stakeholder and multi-agency involvement using an ecosystem approach; at all levels;

To further intensify efforts in addressing the root causes of fire and haze problems including eradicating poverty and balancing short-term commercial interests with long-term sustainable development goals;

To further continue promoting multi-stakeholder participation and coordinated efforts at international, regional, national and local levels;

To further disseminate controlled burning practices and alternatives for shifting cultivation for the local community, as well as promote zero burning practices for commercial purposes;

To further intensify community-based fire management efforts such as development of community fire brigades; providing incentives and livelihood options for the local community to control open burning practices; and disseminating techniques on alternatives to using fires;

To continuously refine the regional Standard Operational Procedures for monitoring, assessment and joint emergency response based on field experiences and through simulation exercises;

To develop strategies to mobilise and channel resources to support preventive and mitigation measures that are more long-term in nature, and explore innovative financing options, including micro-credit financing, market-based instruments, and carbon-related financing;

To ensure building and financing of sustainable structures and institutions at all levels responsible for fire management and / or inter-agency / multi-stakeholder involvement in fire management.

The participants of the Regional Session urged authorities and international organizations to provide the financial and technical assistance to the Global Wildland Fire Network, and in particular to the South Asia and Southeast Asia Regional Wildland Fire Networks represented in this session. International cooperation must be developed in the region to address the issues related to wildland fires in the regions. A strategy could be the development of 'North-

South' and 'South-South' linkages for planning, programming and project implementation.

The overall conclusions of the conference confirm the call for coordinated and collective action (Appendix 5).

4.3 Other international thematic networks

Other thematic networks provide ample opportunity to cooperate in the scientific and technical arenas, e.g. the Global Observation of Forest and Land Cover Dynamics (GOFC/GOLD). The main goal of GOFC/GOLD is to provide a forum for international information exchange, observation and data coordination, and a framework for establishing the necessary long-term monitoring systems.⁶ The GOFC/GOLD-Fire Mapping and Monitoring Theme is aimed at refining and articulating the international observation requirements and making the best possible use of fire information from the existing and future satellite observing systems, for fire management, policy decision-making and global change research.

GOFC/GOLD through GFMC is currently supporting the design of the "Global Wildland Fire Early Warning System", a component of the "Multi-Hazard Early Warning System" that is currently developed under the auspices of the UN.⁷ Forest and land management agencies, as well as land owners and communities, require an early warning system to identify critical time periods of extreme fire danger in advance of their occurrence. Early warning of these conditions with high spatial and temporal resolution incorporating measures of uncertainty and the likelihood of extreme conditions allow fire managers to implement fire prevention, detection and pre-suppression plans before fire problems begin. Considering the fact that the majority of uncontrolled and destructive wildfires are caused by humans as a consequence of inappropriate use of fire in agriculture, pastoralism and forestry, it is crucial that wildland fire early warning systems are developed to enhance warnings applied or generated at the local (community) level (people-centred early warning systems – as requested by the UN Secretary General and as laid down in the Hyogo Framework for Action 2005-2015: "Building the Resilience of Nations and Communities to Disasters"). This will ensure delivery of targeted information reflecting specific local conditions and allowing the involvement of local communities in wildland fire prevention.

⁶ GOFC-GOLD is a project of the Global Terrestrial Observing System (GTOS) programme, which is sponsored by the Integrated Global Observing Strategy (IGOS): <http://gofc-fire.umd.edu/>

⁷ For regular updates see: <http://www.fire.uni-freiburg.de/fwf/EWS.htm>

5 International Carbon Trade: Participation through Fire Management

A recent move of recognizing avoided deforestation or protection of vegetation resources for maintaining terrestrial carbon stocks provides a new opportunity for investments in targeted fire protection in Indonesia. In July 2007 the World Bank announced the planned launch of a \$250 million fund to encourage developing countries to stop deforestation in return for access to carbon credits. This has attracted strong international support.⁸

Forests are not included under the existing emissions reduction framework, the Kyoto Protocol, even though deforestation, especially in the tropics, contributes about 20 percent of human-generated global carbon emissions -- some two billion tonnes of carbon per year.

According to World Bank it is aimed to use the programme as an encouragement for more investment from public and private sector bodies to generate revenues through the protection of standing forest with high biodiversity and carbon storage value. The programme aims at ensuring developing nations were able to monitor forest depletion and halt illegal logging. Countries that cut emissions from deforestation would be able to sell carbon credits to other countries. So far, 14 forest-rich countries from Central and South America, Africa and the Asia-Pacific have expressed interest in the scheme. The bank will choose about five countries, who will have to prove they are tackling illegal logging, to participate in a pilot stage.

According to a recent assessment Indonesia could earn up to \$10 billion per year from selling forward Voluntary Emissions Reduction (VER) credits into the global markets.⁹ This assessment assumes that demand is stable, yet increasing. The assessment states that

“...currently, Indonesia is making a macroeconomic long-term bet that oil palm will be worth more than avoided deforestation. In 2004, the oil palm market gave \$43 million in taxes to Indonesia's treasury. Estimated conservatively, the \$10 billion annual estimate of revenue from the two avoided deforestation frameworks, B2B avoided deforestation and state-sponsored avoided deforestation, would add over \$1 billion to Indonesia's treasury. There are currently a basket of methodologies available, some of which were approved under the Kyoto Protocol Clean Development Mechanism (CDM) and some by the Chicago Climate Exchange (CCX). Indonesia can now today earn market-based compensation -- through carbon credits and offsets -- from reforestation by planting native species using CDM and programmatic CDM and using avoided deforestation to reduce emissions using CCX voluntary emissions reduction credits (VER). Indonesia does

⁸ http://www.fire.uni-freiburg.de/media/2007/07/news_20070724_gl.htm;

see also: <http://www.fire.uni-freiburg.de/sevilla-2007/groups/Worldbank.pdf>

⁹ <http://www.thejakartapost.com/yesterdaydetail.asp?fileid=20070728.E02>



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not need to wait, Indonesia can make money now. In addition: Indonesia has approximately 60 percent of the world's peatland swamps, or 20 million hectares, that could be utilized within the carbon markets easily. By committing to continued palm oil plantation expansion, Indonesia is not only accelerating deforestation causing waterway pollution and its deleterious health affects, Indonesia is exposing itself to the global market risk for a single commodity ∴ Tax revenue is greater with avoided deforestation than palm oil, and it is less risky.“

It is suggested that Indonesia should actively become involved in this pilot programme. Investments in expanded and efficient fire management capabilities would be the key for successfully halting fire-induced deforestation carbon depletion by land-use fires and wildfires in peatlands.

An initiative should be launched before the December COP meeting in Bali, to capitalize on the strategic opportunity presented in Bali.

6 Overall conclusion and recommendations

With the transition of the EU-supported SSFFMP project to the Province of Sumatera Selatan the leadership in the province is challenged to further utilize the expertise gained by the project. The project expertise constitutes competence and thus an important capital for participating in international processes, some of which may provide high-return opportunities – the contribution of fire management to reduce terrestrial carbon emissions or increase terrestrial carbon sequestration and selling Voluntary Emissions Reduction (VER) credits into the global markets. It should be considered that a relevant initiative should be prepared for the upcoming United Nations Climate Change Conference, 3-14 December, Nusa Dua, Bali, Indonesia (COP 13 and CMP 3).

In order to ensure efficient informal dialogue and partnerships, including project-financing opportunities, the project follow-up arrangement must seek close partnership with the voluntary agreements that have been listed in this report.

In summary, the Government of Indonesia is urged to give highest priority to transit the project into a permanent institution. If this is not secured there will be a high risk of losing expertise and opportunities for the future in which excessive burning activities and wildfires in South Sumatra will continue to be a major threat to the sustainability of ecosystems in the Province, and in general to the environment and to society in the whole region.

Appendix 1

Outcomes of the International Wildland Fire Summit Sydney, Australia, 8 October 2003

PART III: Strategic Paper International Wildland Fire Management Agreements Template ¹⁰

Introduction

The 3rd International Wildland Fire Conference held in Sydney, Australia 4-6 October 2003 and the subsequent Summit on 8 October 2003 provides important forums for discussions of how to manage the future of international wildland fire management and share solutions to global problems. This paper offers a template and information on cooperation in wildland fire management to countries interested in entering into formal relationships and agreements with other countries facing similar issues.

This paper is intended to enhance current international coordination and cooperation by providing information on the following:

- A Template outlining areas to consider when developing international cooperative agreements;
- Listing of the types of cooperation and assistance that may occur between countries;
- The responsibilities of countries sending assistance and of those receiving assistance;
- Websites containing information and examples of existing cooperative agreements and arrangements.

Template for International Cooperative Agreements

The following is an outline for a template of areas that need to be considered when countries are developing international cooperative agreements. There may be other areas that need definition and consideration besides those listed below. This template is drawn from an annex of a UN Food and Agriculture Organization (FAO) document *Legal Frameworks for Forest Fire Management: International Agreements and National Legislation*. This FAO document provides excellent reference materials, which should be reviewed prior to entering into international agreements.

Developing countries will require special consideration because they may not be able to reciprocate in a partnership as fully as a developed country can.

The important role of Non-Government Organisations (NGOs) should be considered as part of any bilateral or regional assistance arrangement.

It is strongly recommended that the parties to a mutual assistance agreement should exercise the agreement through exchanges, field exercises and low-level assistance prior to it being activated at a time of crisis.

¹⁰ Source: International Forest Fire News (IFFN) No. 29, p. 10-14, 2003
(http://www.fire.uni-freiburg.de/iffn/iffn_29/content29.htm)

Outline for International Cooperative Agreements

1. Parties to the Agreement
 - Includes governmental and non-governmental agencies and organizations at a variety of levels.
2. Purpose
 - Defines areas and forms of cooperation.
 - Define the scope of the cooperation.
3. Definition of Terms
 - Defines terms used in the agreement to insure there is no confusion or misinterpretation as to the meaning of the content of the agreement.
5. Expenses and Costs
 - Personnel- Defines how personnel costs will be set such as per person, per crew, per day or per assignment.
 - Equipment - Defines how equipment cost use will be set such as per day or per assignment.
 - Reimbursement of costs – Sets the procedures, amount, and criteria for reimbursement. Some agreements call for reimbursement only after a certain threshold of time or level of support has been reached.
 - Non-reimbursable – Under certain agreements all parties may agree to assist each other on a mutual aid, non-reimbursable basis.
6. Information and Coordination
 - Communication channels – Defines the protocols and methods to coordinate and exchange information.
 - Information exchange – Defines the types, amount and timing of information exchange.
 - Notifications – Sets the notification procedures for emergencies or for other significant events.
 - Coordination of work – Defines how and under what organizational structure the coordination of work will take place.
7. Liabilities, Claims and Compensations
 - Cross-wavier of claims/exemption from liability – Lists and defines how and when the cross-waivers and exemptions are in force for personnel that are being exchanged.
 - Exemptions to cross-wavier of claims – Lists and defines those areas or circumstances where the exemptions do not pertain to personnel that are being exchanged.
 - Damage to a third party – Outlines remediation methods and limitations for third party damage.
 - Medical assistance for injured personnel – Defines the protocols and procedures for assisting and possibly evacuating injured personnel.
 - Compensation in case of injury or death – Defines the timing, levels and limitations of compensation for injury or death. This may also be addressed above in the cross waivers and exemptions.
 - Privileges and immunities for the assisting personnel – Describes and defines the levels and limitations of privileges and immunities that the receiving country will provide to assisting country personnel.

8. Operating Plans / Operational Guidelines

- Provision for operating plans/operational guidelines – Operating plans/operational guidelines are a critical component of all cooperative agreements. They should be carefully crafted and reviewed by all parties to the agreement. The plans and guidelines outline and define specific operational areas to insure that the agreement can be implemented in a timely and efficient manner. They include items such as points of contact, procedures for requesting resources, entry procedures, annual updates of costs, reimbursements, and cross waivers, and updated standards, qualifications or training requirements Also identifies how often and by whom the plans and guidelines will be reviewed, updated and the method for revalidating the contents of the plans and guidelines.

9. Border Crossings

- Sets protocols and procedures for simplifying of border crossing taking into account sovereignty issues, including the following:
 - Opening of alternative border-crossing points to facilitate the assistance
 - Customs provisions:
 - Concerning personnel
 - Concerning equipment and materials
 - Concerning officer responsible for equipment
 - Concerning aircraft

Portions of this information will also be included in the operational plans and guidelines.

10. Link to Disaster Management Plan for the receiving country.

- Explains how the fire assistance plan sits within the wider disaster management plan for the receiving country, including legislation giving the necessary powers.

11. General Provisions

- Entry of force of the agreement - Defines when agreement is activated.
- Duration – Specifies how long the agreement will remain in force
- Withdrawal – Defines how countries or organizations can withdraw from the agreement.
- Termination – Defines under what circumstances the agreement will terminate.
- Interpretation – Provides understandings and interpretations for countries and organizations concerning under what circumstances and limitations each party is entering into the agreement.
- Settlement of disputes – Defines the method of dispute resolution.
- Amendments – Defines when and how amendments to the agreement may be submitted, reviewed, and acted upon.

12. Standard Operation Procedures

- These procedures describe in detail the methodology to be followed when the agreement is activated, especially in relation to command and control, fire suppression procedures to be followed, communications systems and safety procedures to be used.
- The SOPs should be tested and refined using tabletop exercises, dry field exercises and low scale operations before being deployed in a full-scale emergency.

13. Other Provisions

- Provides the opportunity for any country, agency or organization signing this agreement to define other areas of cooperation that they want to include in the agreement such as:
 - Shared training activities, including materials
 - Study tours, technical exchanges, and joint exercises
 - Relationship of this agreement to other agreements
 - Standards for personnel
 - Safety equipment
 - Limitations on the type and use of telecommunications equipment
 - Method of recall of firefighting resources

14. Participating Countries/Agencies/Organizations Signature Page

- It is important that all potential participants review and confirm their authorities to sign such an agreement.

Types of Cooperation and Assistance

International cooperation and assistance occurs in a variety of ways. Some agreements are non-reimbursable while others call for reimbursement. Some assistance is offered on a technical non-reimbursable basis and other assistance is offered or solicited during periods of disaster. When countries develop international cooperative agreements the purpose and method of cooperation and assistance need to be clearly identified and understood between all parties. The following describes several types of cooperation and assistance that currently exist.

Mutual Assistance:

Mutual Assistance agreements often deal with fire management issues along shared borders. Assistance by one country to another is usually non-reimbursable with the understanding that both countries may benefit at different times from assistance along mutual borders

Cooperative Assistance:

These agreements are for assistance and cooperation throughout the countries or states that have signed the agreement, not just for the border areas. These agreements are usually set up on a reimbursable basis.

They may also include non-reimbursable exchanges of experts. These exchanges may include areas such as fire prevention and mitigation, prescribed fire, personnel exchanges, and broad based study tours of fire management programs.

Technical Exchanges:

Activities carried out under technical exchanges are similar to cooperative assistance agreements but are much more informal and exchanges are not always tied directly to an ongoing agreement. These are usually self-funded, non-reimbursable activities that occur on an as needed or as desired basis. They remain at technical and informational exchange level and do not include exchanges of resources to help with direct fire suppression activities.

Technical Assistance:

An offer of or a request for technical assistance may or may not be a part of a formal agreement. Technical assistance provides experts from one country to another country in need of technical assistance, to improve and strengthen the receiving country's abilities and capacity to deal with wildland fire management issues. The goal of technical assistance should be to reduce the need for outside assistance in the future. This type of assistance is usually non-reimbursable and is paid for by the country offering the assistance.

Disaster Assistance:

When wildland fires involve trans-border issues from a humanitarian, ecological, medical, economic, or diplomatic standpoint, some countries will offer immediate disaster assistance to affected countries on a non-reimbursable basis. Disaster assistance is meant to assist the affected country during a critical time period and may or may not be based on existing cooperative agreements. Disaster assistance may be the genesis for future cooperative agreements or technical assistance programs.

Responsibilities of Sending Country and Receiving Countries

Countries sending or receiving assistance through the methods and agreements identified above need to understand that certain responsibilities are inherent in these relationships. The following paragraphs identify the responsibilities of all countries, agencies, or organizations involved. There are certainly more issues than those listed below that should be discussed prior to sending or receiving assistance but the information below attempts to identify some of the key elements of the responsibilities involved in these types of arrangements.

Sending Countries:

It is important to note that as countries enter into formal cooperation agreements with other countries, the success or failure of those agreements rests just as much on the personal conduct of the sending country's representatives as it does on the effectiveness of their fire management capabilities. It is critical to always send the country's most appropriate and qualified personnel, as the receiving country will quickly detect whether they are receiving the help they need or individuals who were selected on rank or seniority and not on skills and capabilities. This is especially critical with reimbursable agreements. Of particular importance is cultural sensitivity towards the people of the receiving country. Personnel being sent will be seen as ambassadors for their country and qualities appropriate to such a role should be included in the selection criteria.

Teams and individuals must also be made aware of local issues dealing with laws, customs, language, dress, food, etc. They must also be briefed on the command and control arrangements and their role and responsibilities within the fire management system of the receiving country.

Sending countries should prepare lists of resources, funding, materials and manpower that may be made available to receiving countries. It is essential that this information is kept accurate and current.

Both sending and receiving countries should maintain and exchange data on the nature, extent and frequency of fires so that the level of assistance sought and made available can be anticipated in any particular season.

Receiving Countries:

Just as sending countries have certain responsibilities, receiving countries must also accept the responsibilities involved in hosting personnel from other countries. Receiving countries must be prepared to brief sending country teams and representatives on the issues mentioned above as well as fire issues such as fuels, weather, topography, safety, management structure on the fires, fire fighting techniques and equipment, types and lengths of assignments, etc. Of particular importance is briefing on communications and legal issues within fire management as well as political and social sensitivities within the wider community. Receiving countries must also be prepared to provide logistical and operational support including welfare support as required.

Websites with Examples of Cooperative Agreements and Arrangements

- www.fao.org/forestry/site/35837/en (comprehensive documentation of agreements in place; last update: November 2005)
- <http://www.fao.org/forestry/site/6708/en/> (quick-look examples of bilateral agreements)
- http://www.fire.uni-freiburg.de/emergency/int_agree.htm (GFMC website for cooperation in emergency situations)

Conclusion

The fire management issues identified and discussed at the 3rd International Wildland Fire Conference highlight the connections and common concerns of the global community about wildland fire. This Summit represents an extension of the work accomplished at the Conference and provides a mechanism to identify ways to continue that progress. This paper has identified issues and provided a template to encourage countries to cooperate in dealing with wildland fire.

Note: The website section on the last page of the document (this page) has been updated, thus it is slightly changed as compared to the original.

Appendix 2

Fire Management Actions Alliance – Charter

Background

Fire has a critical role to play in nature and in land management on the one hand, in maintaining fire dependent ecosystems and providing an important and cost-effective land use tool, while on the other, in causing deforestation, forest degradation, emission of greenhouse gases and destruction of livelihoods, biodiversity and infrastructure.

Following the recommendations of the 3rd International Wildland Fire Conference and 1st Wildland Fire Summit, Sydney, Australia, October 2003, the Ministerial Meeting on Sustainable Forest Management, held March 2005, and the Committee on Forestry, also held March 2005, FAO coordinated a multi-stakeholder process to prepare a Strategy to Enhance International Cooperation in Fire Management. The Strategy is being designed to include Voluntary Guidelines, Global Assessment of Fire Management, and Review of International Cooperation in Fire Management.

The Fire Management Voluntary Guidelines (hereafter referred to as “the Guidelines”) provide an international framework, outline cross-sectoral issues, detail the principles and attributes needed to balance the social, cultural, environmental and economic dimensions of fire management, and prescribe key actions for the planning and management of fires. This framework supports the achievement of the Millennium Development Goals, particularly Goal 1 to eradicate extreme poverty and hunger, Goal 7 to ensure environmental sustainability and Goal 8 to develop a global partnership for development.

The FAO Committee on Forestry, in March 2007, recognized the progress made to date and (a) requested FAO, in collaboration with the UNISDR Global Wildland Fire Network and other partners, to finalize the Strategy to Enhance International Cooperation in Fire Management, (b) welcomed the development of the Guidelines in a multi-stakeholder process and recommended that members and forestry stakeholders make use of them; (c) recommended that FAO and partners facilitate implementation of the Guidelines, and (d) recommended that the Guidelines be maintained as a living document, to be updated and improved through feedback from implementation. The Fire Management Actions Alliance is a response to these expectations.

1. Purpose

The purpose of the Fire Management Actions Alliance (hereafter referred to as “the Alliance”) is to stimulate improved fire management and reduce damage from fire worldwide.

2. Objectives

The Alliance

- reviews and updates the Guidelines based on implementation experiences;
- encourages stakeholders at all levels to adopt and use the Guidelines;
- reviews experiences from applying the Guidelines;
- strengthens international cooperation in fire management.

3. Operating principles

The Alliance membership consists of organizations willing to improve fire management.

The Guidelines are the basic document for the Alliance, outlining a comprehensive perception of sound fire management that is shared by all members.

The Alliance will not involve financial implications for members aside from those regarding the participation of each member in its work.

The performance of the Alliance is determined by the commitment (a) to implement fire management activities and (b) to enhance international cooperation by its members.

The Alliance maintains a publicly shared knowledge base of its members' experiences from fire management activities.

A Secretariat carries out communication and related tasks. The Secretariat operates with in-kind resource contributions from members.

The Alliance, as a non-geographically based group, will work with the Global Wildland Fire Network in order to promote mutual goals and objectives in enhancing international cooperation in wildland fire management. The Alliance is without any prejudice to the status of each of its members.

4. Membership

Any organization, agency, or group, willing to adhere to the Charter of the Alliance, can apply for membership.

There are no membership fees.

Membership applications should be sent by letter to the Secretariat stating involvement in fire management, the intention to join the Alliance, and to adhere to the Purpose, Objectives and Principles of the Alliance.

An Advisory group to the Secretariat will decide membership approvals.

Membership does not imply any financial or other resource commitment by the member.

Membership implies a commitment:

- to promote the Guidelines;
- to make use of the Guidelines in implementing fire management activities;
- to share knowledge, information and data on activities and progress in fire management, with reference to the Guidelines;
- to enhance international cooperation in fire management.

A member can leave the Alliance at any point in time, with immediate effect, through a letter to the Secretariat.

5.

Secretariat

FAO, through its Forest Management Division, resources permitting and following internal management decisions, in collaboration with the secretariat of the UNISDR Global Wildland Fire Network and with support of members, provides communications, coordination and related services to the Alliance through the Secretariat. The Secretariat operates with voluntary contributions from members.

The Secretariat's tasks include:

- maintaining a publicly available web based knowledge reference about the Alliance, including membership, activities, documents and experiences from fire management activities;
- maintaining information on members and their respective activities and progress in implementation of the Guidelines;
- coordinating reviews, publication and communication of the Guidelines;
- providing support to members in programme and project analyses and awareness raising activities based on the Guidelines;
- assisting in identifying donors to strengthen capacity in implementation of the Guidelines in developing countries;
- convening meetings (including online fora) for reviewing progress and functions of the Alliance;
- planning, prioritizing and coordinating the Secretariat activities according to available resources.

Any member can, and is encouraged to, provide in-kind contributions to the Secretariat functions. FAO coordinates such in-kind contributions.

6. Operation of the Alliance

The Secretariat will regularly invite all members to review the Alliance's progress, decide on changes in its charter, and to nominate members of an Advisory group to support the Secretariat. As a minimum, there shall be one opportunity per year for members to participate in decisions on the future of the Alliance, in face to face meeting or through electronic submissions. Majority rule is applied, with one vote per member.

To terminate the Alliance, a majority decision by its members is required.

7. Founding Members

The Alliance is established on 16 May 2007 during the 4th International Wildland Fire Conference in Seville, Spain. The following organization, agencies, and groups declared their intention to become members (editorial note: this is an open, dynamic list maintained on the FAO website; for the up-to-date list see: www.fao.org/forestry/site/40478/en).

Source: <http://www.fao.org/forestry/site/40476/en>

Appendix 3

Development of a Global Alliance: The Global Wildland Fire Network and Partners

In recognition of the significant impacts of vegetation fires on the global environment, on economies and society, and the role of natural and anthropogenic fire as an important factor in maintaining stability, biodiversity and functioning of some ecosystems, several international consultations during the 1990s, including the 2nd International Wildland Fire Conference (Vancouver, Canada, 1997), recommended that a group and mechanisms be formally established under the auspices of the United Nations to facilitate international cooperation in addressing global fire needs.¹¹

In response to this recommendation and the need for implementing the strategic goals of the UN Convention on Combat of Desertification (CCD), Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the Ramsar Convention on Wetlands, the Global Fire Monitoring Center (GFMC) was founded in 1998, aimed at providing a global fire monitoring system and an interface between the fire science community, fire managers and policy makers.

This step was followed by the creation of a dedicated international and UN inter-agency platform under the auspices of the UN International Strategy for Disaster Reduction (UNISDR). Following a proposal of the GFMC and the World Conservation Union (IUCN), a Working Group on Wildland Fire was established in 2001 under the auspices of the UNISDR Inter-Agency Task Force for Disaster Reduction. This Working Group was coordinated by the GFMC and operational until 2003.

The Working Group provided an international platform and forum with the overall aim of bringing together the technical members of the fire community and the authorities concerned with policies at national to international levels to realise their common interests and commitments in fire management at global scale. The Working Group examined action related to international collaboration, capacity building and human resource development; to review mechanisms to support cooperation in forest fire management at bilateral, regional and international levels; the establishment of inter-country agreements aimed at sharing resources, personnel and equipment; and to examine components of such inter-country agreements, including overall logistical, policy and operational level considerations. Most importantly, the Working Group initiated the establishment of the UNISDR Global Wildland Fire Network (GWFN) under which Regional Wildland Fire Networks would play a key role in developing partnerships and cooperation in fire management between countries (see below).

In 2003 the International Wildland Fire Summit, an informal summit organized in conjunction with the 3rd International Wildland Fire Conference (Sydney, Australia, October 2003) and attended by representatives of from 34 countries and 12 international organizations, including the ASENA Secretariat, recommended principles and procedures for international cooperation in fire management. Furthermore, the Summit recommended to pursue the international policy dialogue through the Regional Wildland Fire Networks organized under GWFN and coordinated by the UNISDR Wildland Fire Advisory Group (WFAG).¹²

¹¹ <http://www.fire.uni-freiburg.de/summit-2003/Wildlandfire-97%20Outputs.pdf>

¹² <http://www.fire.uni-freiburg.de/summit-2003/introduction.htm>

In May 2004 the Global Fire Monitoring Center (GFMC), FAO, UNISDR and GOFD/GOLD (Global Observation of Forest and Land Cover Dynamics) drafted a paper “Framework for the Development of an International Wildland Fire Accord”.¹³

Regional consultations in 2004 recommended the development of informal partnerships, joint projects and formal agreements between government and non-governmental institutions that were essential to enable nations to develop sustainable fire management capabilities. In 2004 the Food and Agriculture Organization of the United Nations (FAO) and the Wildland Fire Advisory Group / Global Wildland Fire Network proposed the development of a non-legally binding International Wildland Fire Accord to the FAO Ministerial Meeting on Forests and the 17th Session of the FAO Committee on Forestry, March 2005 (COFO 2005). Both the Ministerial Meeting and COFO 2005 rejected the proposal of an “accord”. However, the ministers and forestry administrations called upon FAO, in collaboration with countries and other international partners, including the UNISDR, to develop a “*strategy to enhance international cooperation on wildland fires*”, that advances knowledge, increases access to information and resources and explores new approaches for cooperation at all levels, and to develop “*voluntary guidelines*” on the prevention, suppression and recovery from forest fire.¹⁴

In response, FAO in 2006 coordinated the development a Strategy to Enhance International Cooperation in Fire Management. The strategy is built upon four pillars:

- “Fire Management Voluntary Guidelines”, which constitutes a code of conduct and ethics for sustainable and integrated fire management;
- “Review of International Cooperation in Fire Management”, which provides a survey and proposals for international cooperation;
- “Fire Management Global Assessment”, which provides a global analysis authored by the UNISDR Regional Wildland Fire Network; and
- “Fire Management Actions Alliance”, which is an action-oriented endeavour to facilitate the use and promote the Guidelines and review experiences from applying the Guidelines

The four elements of the Strategy were presented to the 18th Session of the FAO Committee on Forestry, March 2007 and to the 4th International Wildland Fire Conference held in Sevilla, Spain, in May 2007, and endorsed by representatives of government institutions and fire management organizations respectively.

The UNISDR Global Wildland Fire Network

As mentioned above, one of the priorities addressed by the Working Group on Wildland Fire was the establishment of the Global Wildland Fire Network (GWFN). The concept of GWFN was to identify or establish Regional Wildland Fire Networks, preferably based on existing formal or informal networks structures and initiatives. The envisaged timeframe for setting up the network was January 2002 - July 2003. The 3rd International Wildland Fire Conference and the International Wildland Fire Summit was used as a platform to convene representatives from regional networks.

¹³ <http://www.fire.uni-freiburg.de/GlobalNetworks/Global-Wildland-Fire-Framework-12-April-2005.pdf>

¹⁴ Documents of the FAO Ministerial meeting and the 17th Session of COFO are available on www.fao.org/forestry/site/26480/en and www.fao.org/forestry/site/2960/en

The “Strategy for Future Development of International Cooperation in Wildland Fire Management” agreed by the informal summit included the following recommendations:

“The Regional Wildland Fire Networks will be consolidated, developed and promoted through active networking in information sharing, capacity building, preparation of bilateral and multilateral agreements, etc. This process will be facilitated through regional Wildland Fire Conferences and Summits”.

At the International Wildland Fire Summit a meeting was held with the regional fire management groups mandated under the auspices of the UN (UNISDR Working Group on Wildland Fire, ECE/FAO/ILO Team of Specialists on Forest Fire, Fire Management Working Group, FAO North American Forestry Commission [NAFC] and the Forest Fire Group of FAO *Silva Mediterranea*). This was the first joint meeting of the four UN groups. A key output of the joint meeting was the recommendation to maintain a body under the auspices of the UN to enable the international community to maintain a unifying platform for the UN and jointly with non-UN groups and agreements.

To support the work of the GWFN the UNISDR Interagency Task Force for Disaster Reduction (IATF) accepted the proposal to create a *Wildland Fire Advisory Group* (WFAG) under the auspices of the UNISDR. The WFAG represents an advisory body to the UN system aimed at providing technical, scientific and policy-supporting advice to the UN family through the UN-ISDR and the IATF, and acting as a liaison between the United Nations system, the Global Wildland Fire Network and its supporting partners.

The 4th International Wildland Fire Conference was held in Sevilla, 13 to 17 May 2007, provided a major step forward in organizing the GWFN. The conference was attended by 1531 participants from 88 countries, including Indonesia. Building on the outputs of the previous International Wildland Fire Conferences (Boston 1989, Vancouver 1997, Sydney 2003), one of the major objectives of the 4th Conference, which was held under the auspices of UNISDR, FAO and the European Commission, was to provide a platform for a meeting of all Regional Wildland Fire Networks. All 13 regional networks contributed to the conference. In six joint regional sessions the Regional Wildland Fire Networks and representatives of the European Commission as well as other participants, discussed a self-assessment of the fire situation in the regions and formulated recommendations for future action in the regions, as well as globally.¹⁵

The Regional Wildland Fire Networks

In the following a brief overview is given on the thirteen Regional Wildland Fire Networks (geographic scope of the regional network – see Figure 1). Regularly updated information on the status of the regional networks and on international cooperation in wildland fire management is provided on the websites of the Global Fire Monitoring Center (<http://www.fire.uni-freiburg.de/>) and in particular on the dedicated website of the Global Wildland Fire Network (GWFN) :
(<http://www.fire.uni-freiburg.de/GlobalNetworks/globalNet.html>).

¹⁵ The post-conference website includes all regional session reports as well as the global conference report:
<http://www.fire.uni-freiburg.de/sevilla-2007.html>

Short Profile of the UNISDR Regional Wildland Fire Networks

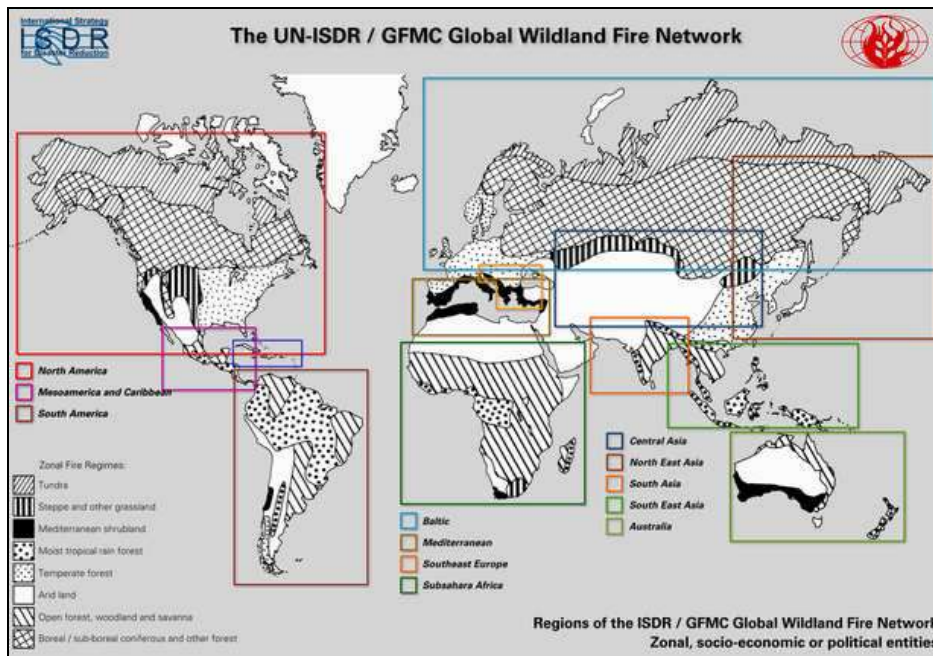


Figure 1. Map showing the geography of the Global Wildland Fire Network

Australasia

In 1993 the Australian Fire Authorities Council (AFAC) was established to improve the collaboration and co-ordination of efforts between those Australian agencies with a responsibility for the protection of life and property from fire and other emergencies. The membership of agencies from the greater region saw AFAC's name change to the Australasian Fire Authorities Council in 1996. The current membership of AFAC stands at twenty-four full members and eleven associate members from throughout the Australasia-Pacific region. AFAC aims to promote and coordinate activities in fire prevention, management and research through five Strategy Groups. AFAC Website: www.ausfire.com; GWFN Australasia Website: <http://www.fire.uni-freiburg.de/GlobalNetworks/Australasia/Australasia.html>

Baltic

The Baltic region includes all countries bordering the Baltic Sea and its neighbours in Western Atlantic Europe. Emphasis of the network's activities, which are coordinated by the UN ECE/FAO Team of Specialists on Forest Fire, include the introduction of competency-based training and qualification system for wildland fire management aimed for fire services, land owners and sectoral organizations. Another priority is the introduction or restoration of prescribed burning for nature conservation, landscape management and forest fire management. GWFN Website: <http://www.fire.uni-freiburg.de/GlobalNetworks/BalticRegion/BalticRegion.html>

Caribbean

Following the initial discussions at the foundation meeting of the Regional South America Wildland Fire Network and the Pan-American Wildland Fire Conference in 2004, a regional consultation facilitated by FAO and GFMC was held in the Dominican Republic in 2005. National focal points of the forest and fire services agreed to establish the network in order to enhance cooperation and mutual assistance in fire management and fire disaster response and authorized Cuba to take the lead. The Regional Strategy on International Cooperation in Wildland Fire Management in Latin America and the Caribbean is based on the participation and inputs of the Caribbean network. GWFN Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/Caribbean/Caribbean.html>

Central Asia

The Central Asia network is an activity in a region, in which countries are in transition from centrally planned to market economies and in which regional climate change is associated with an increasing occurrence of extreme droughts and unprecedented occurrence of wildfires. Government representatives participating in the Regional Central Asian Forest Congress “Forest Policy: Problems and Solutions” (Bishkek, Kyrgyz Republic, 2004) endorsed the participation of the region in the Global Wildland Fire Network. A first regional network meeting was held in 2005 in Irkutsk, Russian Federation. GWFN Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/CentralAsia/CentralAsia.html>

Mediterranean

In 2002 the Regional Mediterranean Wildland Fire Network was established under the auspices of the FAO *Silva Mediterranea* Group. A Workshop “Multilateral Assistance Against Forest Fires in the Mediterranean Basin”, held in Zaragoza, Spain, 2003, reviewed the procedures existing mutual agreements and common legal and logistical tools increase the efficiency of multilateral assistance against forest fires within the Mediterranean Basin by sharing resources. The network is led by Spain and aims at transiting to a pan-European Regional Wildland Fire Network. GWFN Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/Mediterrania/Mediterrania.html>

Mesoamerica

At the First Central Mesoamerican Meeting on Forest Fire Protection, held in Guatemala in 2002, delegates of Mesoamerica agreed formally to launch a programme of cooperation which includes sharing of information and resources in fire management as well as in capacity building. In 2004 the *Comisión Centroamericana de Ambiente y Desarrollo* (CCAD) established a Technical Commission on Forest Fires and Pests and created the Regional Central America and Mexico Forest Fire and Pest Network operating under the CCAD. In May 2005 national fire focal points developed the Central American Strategy on Fire Management 2005-2015. Webpage of the CCAD Fire Management Working Group of Central America:

http://www.ccad.ws/tecnicos/ccab_incendios.html, GWFN Mesoamerica Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/MesoAmerica/MesoAmerica.html>

North America

The Fire Management Working Group (FMWG) of the North American Forestry Commission (NAFC) was established in 1961. Participating countries include the U.S.A., Canada and México, which are exchanging personnel and technical resources in wildland fire management and mutual assistance in extreme fire situations. The FMWG endorsed the participation in the Global Wildland Fire Network at the Pan-American Wildland Fire Conference (23 October 2004). NAFC Fire Management Working Group Website:

<http://www.fs.fed.us/global/nafc/fire/aboutus.htm>; GWFN Mesoamerica Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/NorthAmerica/NorthAmerica.html>

North East Asia

This network includes the participation of the Republic of China, Japan, South Korea and the Far East of the Russian Federation and is coordinated by the Korean Forest Research Institute, Forest Fire Division, since the kick-off meeting sponsored by the GFMC in Seoul in 2004. The First International Northeast Asia Forest Fire Conference and the third meeting of the Regional Northeast Asia Wildland Fire Network was held in September 2006 in Khabarovsk, Russian Federation, organized by the Pacific Forest Forum (PFF). Website at GWFN:

<http://www.fire.uni-freiburg.de/GlobalNetworks/Northeast-Asia/Northeastasia.html>

PFF Website: <http://www.pacific-forest-forum.org/>

South America

The Regional South America Wildland Fire Network was founded in June 2004 in Curitiba, Brazil, sponsored by the Global Wildland Fire Network. The South American Strategy on Fire Management 2006-2010 and the Fire Management Working Group of South America were established in 2005. The network is co-chaired by PREVFOGO / IBAMA (Brasilia, Brazil), the Federal University of Paraná (Curitiba, Brazil), and the National Forestry Corporation (CONAF), Chile. Website at GWFN:

<http://www.fire.uni-freiburg.de/GlobalNetworks/SouthAmerica/SouthAmerica.html>

South Asia

The foundation of the Regional South Asia Wildland Fire Network was held in the premises and co-sponsorship of the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal, March 2007, funded by the GFMC, in line with the Declaration of the Tenth SAARC Summit Colombo 1998 on Environment and the decision made in the meetings of the UNISDR Wildland Fire Advisory Group / Global Wildland Fire Network. The network is chaired by Nepal. Website at GWFN:

http://www.fire.uni-freiburg.de/GlobalNetworks/SouthAsia/Front_RSAWFN.html

South East Asia

In June 2002 member states of the Association of South East Asian Nations (ASEAN) signed the legally binding ASEAN Agreement on Transboundary Haze Pollution, an agreement for cooperation in fire management. At the ASEAN Senior Officials for Environment (ASOEN) Haze Technical Task Force meeting (10 June 2002) and the subsequent ASEAN Ministerial Meeting on Haze (11 June 2002) it was recommended that the ASEAN nations work together with the GFMC to liaise the activities within ASEAN ("South East Asian Wildland Fire Network") into the Global Wildland Fire Network. The ASEAN Secretariat is serving as a regional network coordinator.

ASEAN Haze Action Online Website: <http://www.haze-online.or.id>; Website at GWFN:

<http://www.fire.uni-freiburg.de/GlobalNetworks/SouthEastAsia/ASEAN-FireNet.html>

Southeast Europe / Caucasus

The first proposal for the formation of a regional network in SE Europe, particularly on the Balkan, was initially discussed in June 2002 to promote cooperation in wildland fire research and management. In 2004 the "ECE/FAO International Conference on Management of Forest Fire Emergencies and International Cooperation in the Eastern Mediterranean, Balkans and adjoining Regions of the Near East and Central Asia" was held in Turkey and elaborated detailed objectives and modus operandi of the networking arrangement. At the International Technical and Scientific Consultation "Forest Fire Management in the Balkan Region" (Republic of Macedonia, 2005) it was decided to expand the current focus on the Balkan Region to a "Regional South East European Wildland Fire Network". The network is jointly co-ordinated by a representative of the wildland fire research community (University of Skopje, Macedonia), a national forest services (Bulgaria, Forest Service) and a national fire service (Croatia, Fire Service). In 2006 it was decided to include the Caucasus countries and designate the network "Regional Southeast Europe / Caucasus Wildland Fire Network". GWFN Website:

<http://www.fire.uni-freiburg.de/GlobalNetworks/Balkan/Balkan.html>



Subsahara Africa

The Regional Subsahara Wildland Fire Network ("Afrifirenet") was launched formally in July 2002 at its first official meeting held in the frame of the Wood for Africa Conference (Pietermaritzburg, South Africa). Advanced Wildland Fire Management Courses have been held in the region, supported by GFMC, UNEP, FAO and the United Nations University (UNU), as well as "Training Courses for Instructors in Community-Based Fire Management" (CBFiM) for Subsahara Africa and training courses "Intermediate and Advanced Incident Command System" were held in South Africa between 2005 and 2007. In early 2006 Working on Fire (WoF) took over administration and coordination of the network. AfriFireNet and WoF will host the 5th International Wildland Fire Conference in South Africa in 2011.

Website at GWFN: <http://www.fire.uni-freiburg.de/GlobalNetworks/Africa/Afrifirenet.html>

Working on Fire (WoF) website: www.workingonfire.org

Appendix 4

4th International Wildland Fire Conference Sevilla, Spain, 13-17 May 2007

Regional Session E: South Asia and Southeast Asia

Regional Fire Assessment and Conclusions and Recommendations for Discussion

I. Self-assessment of the fire situation and fire management capabilities

South Asia:

1. In all countries in the region, fire is used by the rural population as a traditional tool for clearing and managing agricultural and pasture lands. It is also used to facilitate the gathering of Non-Timber Forest Products (NTFPs) and in hunting and herding. Uncontrolled fires are common in the region, with a long and intense dry season. Many of these fires have the potential to cause major damages;
2. Consequences of uncontrolled fires in South Asia among others are serious degradation of forests, ecological changes, as well as deterioration of social and economical conditions in some land-use systems and natural vegetation types;
3. The South Asian region has diverse ecosystems, socio-economic and cultural settings and vegetation types resulting from a wide range of land-use systems and climatic conditions, consequently having diverse fire regimes and vulnerabilities; not all fires are destructive and fire management can be an essential part in ecosystem management;
4. There is a lack of existing regional capability in fire research and management, including monitoring, early warning and ecological and socio-economic impact assessment, and facilitating international cooperation in fire management;
5. There is increasing interest in Community-Based Fire Management (CBFiM) and the need for institutional and technological capability development at all levels;
6. There is high expectations from sustainable vegetation cover which helps to reduce poverty through livelihood support to rural populations;
7. The Regional South Asia Wildland Fire Network is the youngest member (founded in April 2007) of the UNISDR-Global Wildland Fire Network. So, it needs especial attention, support and enabling environment to keep pace with the other networks. At present, Bangladesh, Bhutan, India, Nepal and Sri Lanka are represented in the network.

Southeast Asia

1. At the beginning of the 21st century the application of fire in land-use systems and wildfires in forests and other vegetation in the South East Asian region are still contributing to the degradation of the environment and the atmosphere, jeopardizing the sustainability of land-use systems, and threatening human populations, especially human health.
2. Major problems associated with the inappropriate use of fire include the loss of habitats and biodiversity in forests;
3. Peatland biomes are particularly threatened as a consequence of peatland conversion by fire to cash crop plantations, notably oil palm plantations;
4. Regional transboundary smoke pollution is a consequence of land-use fires and conversion burnings in all vegetation types of the region;



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5. Sixty percent of world's tropical peatlands are found in South East Asia covering an estimated area of between 21 to 23 million ha. Peatland fires, as a result of peatland drainage and unsustainable management practices, have become a major regional problem that has negatively impacted human health, food production and biodiversity as well as contributed to global climate change. More than 2 million hectares of peatlands have burnt in the past 10 years resulting in thick smoke and haze blanketing the region inflicting damage worth an estimated USD9 billion.
6. Member Countries of the Association of Southeast Asian Nations (ASEAN) and the international community have increased their efforts to reduce the occurrence and negative impacts of fires and the resulting transboundary haze pollution, among others, by the signing of the ASEAN Agreement on Transboundary Haze Pollution in June 2002, which entered into force in November 2003;
7. There is good progress in the implementation of the Agreement, including continuous monitoring of fires and associated haze by the ASEAN Specialized Meteorological Centre in Singapore; development and operationalisation of a regional standard operating procedures (SOP) for monitoring, assessment and joint emergency response; simulation exercises to enhance coordination and communication mechanisms in joint emergency response; establishment of community fire brigades at the village level; development of an online inventory of available fire fighting resources in ASEAN Member Countries that could be made available in case of emergency; development and promotion of guidelines for "zero burning" and controlled burning practices; and a website to facilitate information sharing and dissemination.
8. ASEAN Member Countries have also adopted the ASEAN Peatland Management Initiative (APMI) to enhance peatland management in the region. Under this Initiative, ASEAN has developed the ASEAN Peatland Management Strategy (APMS) (2006-2020) to guide actions to sustainably manage peatlands and reduce fires and associated haze within the framework of the ASEAN Agreement on Transboundary Haze Pollution;
9. A Panel of ASEAN Experts on Fire and Haze Assessment and Coordination has been established to undertake rapid assessment of the situation on the ground during potential or impending critical periods of fires and haze, and provide recommendations to facilitate immediate response and effective mobilisation of resources within the region. The Panel of ASEAN Experts has been deployed three times during the critical periods of 2006.

II. Conclusions and Recommendations

The participants of the Regional Session "E" recommend authorities in all levels and international organizations:

South Asia:

1. To support countries to conduct national fire and fire management assessments, formulate legal frameworks and strategies, build sustainable fire management capabilities and institutions, develop fire management plans and human resources;
2. To give emphasis to improvement of participatory / community-based fire management approaches and institutional and technological capabilities at all levels;
3. To promote education and awareness-raising programmes on wildland fires;
4. To enhance cooperation among countries within the two regions and at inter-regional levels, aimed at sharing technology, expertise and data in fire management;
5. To encourage the endorsement and use of FAO's Fire Management Voluntary Guidelines;
6. To endorse the objectives of work of the UN-ISDR Wildland Fire Advisory Group / Global Wildland Fire Network and Global Fire Monitoring Center (GFMC) and to support

- implementation of building fire management capability at both local and national levels, as well as through bilateral and multilateral cooperation agreements;
7. To establish a regional South Asian Fire Monitoring Center, which in future may also serve as a regional coordination centre for wildfire disaster response;
 8. To support the application of the non-legally binding instrument under the auspices of the United Nations Forum on Forest (UNFF) of 28 April 2007, and its implementation through the Multi-Year Programme of Work; as well as the International Strategy to Enhance International Cooperation in Fire Management, including the Fire Management Voluntary Guidelines in accordance with the recommendations by FAO-COFO / Ministerial Meeting 2005, and FAO-COFO 2007;
 9. To create an enabling environment from all possible donors including national, international, bi-lateral, multi-lateral and private foundations for financial, technical and other resource support for sustainable fire management.

Southeast Asia / ASEAN Region:

1. To create enabling environment from all possible donors for financial, technical and other resources to support ASEAN in the implementation of the ASEAN Agreement on Transboundary Haze Pollution;
2. To promote rehabilitation and sustainable use of peatlands and support the implementation the ASEAN Peatland Management Strategy (APMS); which comprehensively addresses not only the root causes of peatland fires and the associated transboundary haze pollution, but also other critical aspects including biodiversity conservation, socio-economic development, alternative livelihoods, and multi-stakeholder and multi-agency involvement using an ecosystem approach; at all levels;
3. To further intensify efforts in addressing the root causes of fire and haze problems including eradicating poverty and balancing short-term commercial interests with long-term sustainable development goals;
4. To further continue promoting multi-stakeholder participation and coordinated efforts at international, regional, national and local levels;
5. To further disseminate controlled burning practices and alternatives for shifting cultivation for the local community, as well as promote zero burning practices for commercial purposes;
6. To further intensify community-based fire management efforts such as development of community fire brigades; providing incentives and livelihood options for the local community to control open burning practices; and disseminating techniques on alternatives to using fires;
7. To continuously refine the regional SOP for monitoring, assessment and joint emergency response based on field experiences and through simulation exercises;
8. To develop strategies to mobilise and channel resources to support preventive and mitigation measures that are more long-term in nature, and explore innovative financing options, including micro-credit financing, market-based instruments, and carbon-related financing.
9. To ensure building and financing of sustainable structures and institutions at all levels responsible for fire management and / or inter-agency / multi-stakeholder involvement in fire management.

The participants of the Regional Session “E” urge authorities and international organizations to provide the financial and technical assistance to the Global Wildland Fire Network, and in particular to the South Asia and Southeast Asia Regional Wildland Fire Networks represented in this session. International cooperation must be developed in the region to address the issues related to wildland fires in the regions. A strategy could be the development of ‘North-South’ and ‘South-South’ linkages for planning, programming and project implementation.

Most

important efforts to put forward at present are to foster cooperation, including regular annual meetings of the regional networks and project implementation:

1. Countries of the South Asia region not yet participating in the regional network are to be encouraged to join the network to cooperate collectively in resolving national and transboundary issues related to fire;
2. It must be ensured that the outcomes of the previous meetings, conferences, consultations should be realized by the decision makers in national and international levels;
3. Financial support must be provided to the UNISDR Global Wildland Fire Network and its secretariat, the GFMC, both by national authorities and international organizations;
4. Member countries should also promote inter-regional cooperation, including joint investigations, joint fire management demonstration projects, consultations, and conferences;

Global issues impacting on the two regions were identified and discussed. They included:

- Demographic changes, including widespread poverty
- Land-use change and land management
- Climate change
- Air quality and human health
- Human security and peace

The South Asia and Southeast Asia Joint Regional Session recommends to the 4th International Wildland Fire Conference:

1. That a series of Regional Consultations – tentatively addressing “Global Change and Wildland Fire: Regional Solutions for Fire Management” – be held globally, within the next 1-2 years, to progress the global issues which are impacting on the geographic areas covered in this 4th International Wildland Fire Conference’s regional sessions.
2. That the 2nd International Wildland Fire Summit – tentatively addressing “Global Change and Wildland Fire: Fire Management Solutions for Mitigation and Adaptation” – be held within the next 2 to 4 years under the auspices of the UNISDR Wildland Fire Advisory Group, aimed at developing a non-legally binding international accord on cooperation in wildland fire management.

In accord with the desire to see further action on global issues impacting on wildland fire within the geographic regions of South Asia and Southeast Asia, the Regional Session proposed that the South Asia and Southeast Asia collaborators shall hold a Regional Consultation in within the next two years.

Appendix 5

4th International Wildland Fire Conference, Sevilla, Spain, 13-17 May 2007 Conference Statement as agreed by the Representatives of 13 Regional Wildland Fire Networks and Participants of the Joint Regional Sessions

The 4th International Wildland Fire Conference was held in Sevilla, Spain, 14-17 May 2007. The conference was held under the auspices of the United Nations International Strategy for Disaster Reduction (UNISDR), the Food and Agriculture Organization of the United Nations (FAO) and the European Commission and hosted by the Government of Spain and the Regional Government of Andalusia. The conference brought together 1531 participants from 88 countries from throughout the world, representing government organizations and civil society from all regions of the world, the United Nations and other international organizations.

The participants of the 4th International Wildland Fire Conference presented the state-of-the art in fire science, fire management and fire management training in all continents. A commercial exhibition provided insight in innovative fire management technologies, including fire detection, monitoring, suppression, and firefighters and public health and safety. A number of organizations and international associations involved in the wildland fire arena held side meetings and recommended enhancing the international dialogue.

The FAO and partners presented progress in the development of a Strategy to Enhance International Cooperation in Fire Management, requested by the Ministerial Meeting in 2005. The Strategy is being progressed through a multi-stakeholder process and includes a Global Assessment of Fire Management, a Review of International Cooperation and Fire Management Voluntary Guidelines. During the Conference, and as part of the Strategy, the Fire Management Actions Alliance was launched to promote, implement and update the Voluntary Guidelines. At the time of the launching event 35 partners – national agencies, universities and international organizations – had signed up to the Alliance.

Fire management specialists, many of them organized and cooperating in Regional Wildland Fire Networks, reported the state of the fire situation in their home countries and in the 13 regions. With reference to the global developments impacting on the fire situation in the regions of the world, the national and regional analyses of the fire situation and a self-assessment of fire management capabilities, the representatives of the Regional Wildland Fire Networks and the participants of the joint regional sessions recognized the global issues impacting on fire occurrence and the consequences of fire on the environment and humans in the regions of the world, notably the

- Demographic changes resulting in alterations of sustainable fire regimes, e.g. the consequences of rural exodus or – vice-versa – exurban migrations, coupled with a loss of traditional, sustainable land-use systems;
- Widespread poverty associated with unemployment, exurban migrations and land tenure conflicts and resulting in increasing human-caused fires;
- Land-use change involving increasing fire use for conversion of vegetation, notably in the tropics, and expansion of land use to fire-sensitive lands, e.g., peatlands, drained or otherwise desiccating wetlands, and other fire-sensitive vegetation;
- Increasing costs of fire suppression;
- Expansion of the wildland-urban interface in some countries and increasing vulnerabilities and greater exposure of rural settlements to increasing occurrence of severely damaging fires;



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- Consequences of, and the contribution to, climate change, resulting in increasing occurrence of extreme droughts in most regions, desiccation of wetlands, thawing of permafrost sites, and a general trend of increasing area burned, fire intensity, fire severity, and longer fire seasons;
- Human health and security threatened by increasing wildfire activity and land-use fires causing release of a greater amount of pollutants and resulting in greater public exposure to hazardous emissions, including transboundary transport of fire smoke pollution at regional to global levels;
- Human security and peace threatened by fires burning on radioactively contaminated lands, by fires on areas with unresolved conflicts, and on territories with post-war hazards such as landmines and unexploded ordnance.

Being cognizant of the global issues, as listed above, the representatives of the Regional Wildland Fire Networks and the participants of the joint regional sessions agreed to the need to develop synergies through coordinated and collective action to address the most pressing problems related to fire management globally. Further the conference participants recommend that:

- The international wildland fire community pursue the development of a global-scale international resource sharing strategy to assist countries with fire management planning activities (including prescribed fire for ecological purposes and fuels management), and active support during periods of wildland fire;
- The FAO promote the global adoption of Incident Command System (ICS) including the publishing of an annual list of countries which have implemented ICS;
- Regional strategies for fire management be developed and designed to the specific needs of regions;
- An international framework for fire management standards be developed and regional wildland fire training be supported, especially to meet the needs for capacity building in developing countries;
- Scientific research programmes addressing the consequences of changes of climate, land use and land cover, and socio-economic changes on fire regimes, environment and society must be supported at all levels;
- The Strategy to Enhance International Cooperation in Wildland Fire Management and the implementation of the Fire Management Voluntary Guidelines be encouraged and endorsed;
- Agencies and groups be encouraged to participate in the Fire Management Actions Alliance in support of their adoption of the Voluntary Guidelines;
- The UNISDR Global Wildland Fire Network, the Regional Wildland Fire Networks and the Secretariat of the global network, the Global Fire Monitoring Center (GFMC), be supported by national agencies and international donors aimed at fostering international cooperation in fire management, including collecting and disseminating fire information, arranging and enhancing international policy dialogue, and supporting projects;
- A series of Regional Consultations tentatively addressing “Global Change and Wildland Fire: Regional Solutions for Fire Management” – be held globally, within the next 1-2 years, to progress the global issues that are impacting people, resources and livelihoods;
- The 2nd International Wildland Fire Summit – tentatively addressing “Global Change and Wildland Fire: Fire Management Solutions for Mitigation and Adaptation” – be held within the next 2 to 4 years under the auspices of the United Nations and partners.

The conference participants thanked the organizers and hosts of the conference for bringing together the international community responsible for wildland fire management. The participants welcomed the offer of South Africa to host the 5th International Wildland Fire Conference, tentatively in 2011.

Appendix 6

Terms of Reference / Work approach For International Short-term Expert / 11 working days (74)

International wildfire agreements and its relevance for South East Asia

Transfer of SSFFMP documents to UN Global Fire Management Center Website

Input for final Workshop 7-8 August 2007

Background:

- Fire history in South-Sumatra and SSFFMP goals
- The EU program in Indonesia
- Feed back in 2005
- Sevilla Conference

Main Tasks:

- Provide an overview of existing wildfire agreements, in particular in the Asian region
- Identify relevant parts of the agreements applicable for Indonesia and ASEAN.
- Provide info and inputs for FM from experiences in other continents and countries
- Foster networking between wildfire agreement stakeholders
- Summarize results and recommendation from the Wildfire Conference in Sevilla which are of relevance to Indonesia
- Plan with the SSFFMP webmaster team the transfer of documents to the GFMC website
- Socialise the findings to the stakeholders via a seminar at the end of the assignment

Duration and Time:

- The International expert shall cover the tasks within a half person month (11 working days).
- The assignment should start end of July 2007 and be finished before end of August 2007.

Results and Outputs of the Assignment:

- International relevant wildfire agreements are known
- Results and recommendations from the Sevilla Conference are included
- Networking between stakeholders is intensified
- Documents of SSFFMP can be hosted at the GFMC website
- Fire management receives increased attention and support from stakeholders

Deliverables / Reporting Requirements:

- The consultant will submit a draft report, comprising the major findings and recommendations and according to the format which will be agreed upon with the Teamleader, to the SSFFMP Project Management Unit (PMU) / Teamleader in electronic and printed version during the final week of the consultancy visit. The draft report will be discussed with the PMU prior to the end of the consultancy visit.

- A final report in electronic and printed version, incorporating comments from the PMU, will be submitted to the PMU, within two weeks after receipt of such comments. Additionally, Time Sheets will be submitted to PMU together with the final report.
- An electronic and printed version of the final report and a printed version of the time-sheets will be submitted to GTZ IS, Jakarta, Indonesia.

Profile:

- He/she should have a master degree in natural resource science with experience in tropical fire management and its related issues. Additional experience in organizing and facilitating seminars, workshops and presentations as well as multi-stakeholder processes.
- The expert must have a thorough knowledge and understanding of the existing fire management concept and activities ongoing in Indonesia including the Indonesian government activities as well as other (donor-supported) fire projects. Additional knowledge and understanding of the Indonesian decentralisation processes is desirable.
- The expert must have excellent interpersonal, professional and diplomatic skills, a clear understanding of the advisory role in a technical cooperation project and should be used to acting in the role of mentor and trainer.
- The expert should be able to work productively with a broad range of professional counterparts, including governmental and non-governmental organizations, EU officials.
- Outstanding writing skill is required with the ability to meet deadlines, and provide concise report.
- Written and oral fluency in English is required, and understand Indonesian language is desirable.
- Basic computer skills.

Experience:

- A minimum ten (10) years of professional work experience, in the content of the tasks and responsibilities as described above.
- Experience in integrating tropical fire management issues into all aspects of project planning, implementation and monitoring.
- Proven ability to work effectively in a team environment and productively work to achieve results.
- A good understanding of technical cooperation, society, government in Indonesia is desirable.
- Familiarity and experience with EU systems is desirable.