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1. The Global Fire Monitoring Center (GFMC) – A short Profile for UNU

The GFMC has been established in 1998 as a contribution of the Germany to the UN International Strategy for Disaster Reduction (ISDR) (and its predecessor arrangement, the IDNDR). GFMC's global portal for wildland fire documentation, information and monitoring is publicly accessible through the Internet.¹ The regularly updated national to global wildland fire products of the GFMC are generated by a worldwide network of cooperating institutions. The online and offline products include:

- Early warning of fire danger and near-real time monitoring of fire events
- Interpretation, synthesis and archive of global fire information
- Support of local, national and international entities to develop long-term strategies or policies for wildland fire management, including community-based fire management approaches and advanced wildland fire management training for decision makers
- Serve as advisory body to the UN system through the coordination of the UN-ISDR Wildland Fire Advisory Group and the ISDR Global Wildland Fire NetworkEmergency hotline and liaison capabilities for providing assistance for rapid assessment and decision support in response to wildland fire emergencies under cooperative agreements with UN-OCHA, Emergency Services Branch and the WSSD Environmental Emergencies Partnership.

The work of the GFMC has been endorsed formally by UNESCO as early as 1998. The GFMC has a cooperation agreement with the WHO and has signed a MoU with the FAO in December 2004 on cooperation in the field of wildland fire disaster reduction and sustainable fire management. A number of other MoUs has been signed with international organizations and governments.

The above-mentioned function as coordinator of the UN-ISDR Wildland Fire Advisory Group (in which UNU-EHS is a member) and the ISDR Global Wildland Fire Network (formally established in 2004) evolved during the lifetime of the Working Group on Wildland Fire (2001-2003) of the ISDR Inter-Agency Task Force for Disaster Reduction (IATF/DR). GFMC is a member of IATF/DR, representing civil society.

Funding for the GFMC and the Global Wildland Fire Network comes from various sources, notably the German Foreign Office, Office for Humanitarian Assistance, and indirectly through research projects. The administration and organizational parent body of the GFMC is the Max Planck Society for the Advancement of Sciences (Max Planck Institute for Chemistry, Mainz, Germany).

¹ <u>http://www.fire.uni-freiburg.de</u>

The UN-ISDR Wildland Fire Advisory Group is a follow-up arrangement of the *Working Group on Wildland Fire* of the Inter-Agency Task Force for Disaster Reduction. The work of the Advisory Group and the Global Wildland Fire Network are facilitated by the Global Fire Monitoring Center (GFMC). Websites with regularly updated information:

The GFMC is located at the campus of Freiburg University, Germany, under a cooperation agreement with the Max Planck Society. The GFMC Director (J.G. Goldammer) is serving as a professor for fire ecology at Freiburg University, Department of Forest and Environmental Sciences. GFMC staff is experienced in conducting advanced training courses in wildland fire management (see Section 2).

Working at the interface between the science community and the user community the research and development work of the GFMC is targeted at providing capacity building and delivering problem-oriented products. A priority goal of the GFMC is to support the UN globally, and countries or regions bilaterally or multilaterally, to develop policies and programmes aimed at reducing the negative consequences of fire on the environment and humanity, and to promote the sound application of prescribed fire wherever ecologically needed.

Since 2004 the GFMC is working with a number of UN and other international organizations on the preparation of an international wildland fire accord (an international agreement on cooperation in wildland fire management). The development of a strategic framework for international cooperation in wildland fire management together with the FAO, ISDR and countries has been recommended by a ministerial meeting at the FAO in Rome, 14 March 2005.

2. Previous cooperation between the UNU-EHS and the GFMC

In 2004 two Joint UN Inter-Agency Advanced Wildland Fire Management Training Courses (one of them a "Training Course for Instructors in Community Based Forest Fire Management" financed by the FAO) were conducted by the GFMC for the SADC Region, in South Africa. The objectives of the courses aimed at training of medium- to high-level decision makers responsible for sustainable land management, forestry, agriculture, disaster management etc., to utilize existing knowledge and tools for appropriate planning and capacity building in wildland fire management. The training course objectives and procedures were coordinated with UNU-EHS and supported by UNEP-OCHA and FAO. Course participants received a certificate of attendance signed jointly by the heads of UNU-EHS and GFMC.

3. Future cooperation

The GFMC aims at enlarging the cooperation with UNU-EHS. The joint UNU-EHS-GFMC arrangement constitutes the "academic arm" of the wildland fire community organized under the UN system / Global Wildland Fire Network (<u>http://www.fire.uni-freiburg.de/GlobalNetworks/globalNet.html</u>).

3.1 GFMC and the UNU Mandate

A list of thematic areas that are covered by the GFMC and that refer to the overall mandate of the UNU has been compiled in the Annex. The list reveals that the scope of work of GFMC is relevant for the general mission of UNU and particularly for UNU-EHS. Through UNU-EHS the GFMC would serve UN agencies and programmes by delivering mandate-oriented / policy-relevant information, research and training. Major emphasis would be given to support UNU's outreach work (capacity building).

3.2 Applied Research and Training Courses in Advanced Fire Management: Contents and Target Groups

The contribution of the GFMC to UNU-EHC's mandate includes applied research for the development of concepts for capacity building in advanced wildland fire management. Depending on projects and requests the GFMC services would be able to cover:

- Methods of science and technology transfer for application in local fire management (wildland fire prevention, preparedness, suppression, rehabilitation) under different cultural, socioeconomic and ecological environments
- Methods and application of people-centred fire management (Community-Based Fire Management)
- Development of national strategies and policies for wildland fire management, including legislation
- Development of standards for international cooperation in wildland fire management (common terminology, standard procedures for cooperation in wildland fire emergencies)
- Training courses for international wildland fire management specialists, including experts for assessment and intervention missions

The key target groups for applied research and capacity building include

- Officials responsible for land and forest management at medium to high levels, including those responsible for community involvement, e.g., Community-Based Forest Management (CBFM) and Community-Based Fire Management (CBFiM)
- Other representatives of public administrations
- Private industry (e.g., private land owners, industrial forest, agricultural and pastoral enterprises)

At national and regional levels GFMC will support multi-stakeholder Round Tables for devising the development of

- wildland fire management policies
- wildland fire management strategies
- local to national wildland fire management guidelines

In addition the GFMC will be available to conduct UN Inter-Agency round tables / discussion fora with involvement of non-UN international organizations, NGOs and civil society.

Annex

The objectives of the cooperation are targeting the UNU mandate (the five key roles of UNU) and will include contributions to the thematic areas in a <u>cross-cutting</u> and <u>synergistic</u> approach:

(i) Environment

This theme area is the <u>key area</u>: Local to global functioning of ecosystems and the environment is increasingly threatened by excessive burning and uncontrolled wildfires. Fire is one factor in vegetation degradation, often in conjunction with other disturbances by humans.

The partners and members of the GFMC and the UN-ISDR Wildland Fire Advisory Group are mandated in their sectoral responsibility: <u>Selected examples</u>: The three Rio Conventions CBD, FCCC and CCD are concerned with the role of fire threatening biodiversity and climate, and contributing to desertification. The FAO is mandated to promote sustainable management of vegetation cover. The WHO is concerned with the impacts of fire-smoke pollution on human health. The WMO is concerned with fire-weather prediction and forecasting of smoke transport. UNEP-OCHA is mandated to respond to environmental and humanitarian crises. ISDR is mandated to promote the development of concepts for disaster reduction with emphasis on preventive measures.

These UN agencies have joined the UN-ISDR Wildland Fire Advisory Group and cooperate with the GFMC. Through these agreed mechanisms we can make sure that our potential for providing information, capacity building and policy advice can be shared <u>synergistically</u> and in a cross-sectoral approach.

(ii) Science, Technology and Society

Science and technology are critical components of the work of the GFMC and the Global Wildland Fire Network. The already existing and continuously further developing information tools for wildland fire early warning, monitoring, modelling and damage assessment need to be transferred to the user community. An <u>informed and capacitated user community</u> is able to utilize the existing, internationally available tools at full extent. The broader use will justify costs for developing these tools and avoid costly duplication of efforts. The most striking example are the satellite-generated information that is already in place and is not yet adequately being used in the developing world. Together with the Global Observing System Strategy (GTOS) and its GOFC/GOLD (Global Observation of Forest Cover/Global Observation of Landcover Dynamics) project a substantial contribution can be made in capacity building in the use of remote sensing information in wildland fire management and disaster reduction.

(iii) Development and Poverty Reduction

Excessive use of fire in land clearing / land-use change is an expression of poverty and land ownership / tenure conflicts (and of course other reasons such as illegal activities, land speculation, impact of global markets for cheap cash crop production etc.). Poverty reduction is one of the key elements in participative approaches in wildland fire management = Community-Based Fire Management (CBFiM). Traditional community structures and traditional knowledge of sustainable land-use and fire-use methods have to be considered, as well as modern approaches in community participation in fire prevention and fire application. This is a very key issue of the envisaged activities – as GFMC did in the first training course in Southern Africa in 2004.

(iv) Governance

Good governance is key for the success of a government / agency in implementing those laws and land-use plans that are available in most countries but often not worth the paper they are printed on. Since vegetation degradation by fire and other factors has complex underlying causes, and the many sectoral responsibilities of agencies often result in non-action or failure of implementation, it is an important aspect to bring the stakeholders together to jointly define common, overlapping and complementary activities that contribute to the reduction of fire damages. The GFMC has already conducted successful "National Round Tables on Wildland Fire Management" in which all the agencies of a country, plus the NGOs, representatives of local communities and international organizations / donors have jointly formulated national strategies and programmes in fire management. This tool of "National Round Tables on Wildland Fire Management" and "National Guidelines for Wildland Fire Management" can be systematically utilized in other countries, especially in the developing world and countries in transition.

(v) Peace

We consider the work of the Global Wildland Fire Network as a contributor for the peace process. For example, we have brought together countries in some of the Regional Wildland Fire Networks which have not spoken to each other too much. A good example was the recent border-crossing assistance in the Near East when Turkey dispatched firefighting resources to Syria, including crews, airplanes and helicopters, to assist in fighting a large and very destructive forest fire end of October 2004.² At the same time it was possible to get a commitment by the government of Israel to assist Syria! That assistance was not needed anymore because of the successful intervention of Turkey. But this case reveals that the result of our regional dialogue, in this case the outcome of the so-called "Antalya Declaration on Cooperation in Wildland Fire Management in the Balkans, Eastern Mediterranean, Near East and Central Asia" (April 2004). We clearly believe that governments are willing to cooperate in responding to disasters – even between those nations that have political tensions. The recent international and intra-national Tsunami disaster response confirms that joint efforts in disaster management may contribute to overcome hostile relationships.

² This example can be seen on this website: <u>http://www.fire.uni-freiburg.de/GFMCnew/2004/1028/20041028_syria.htm</u>