



First Announcement

**West Africa Regional Network Meeting on
Earth Observation and Environmental Change**

in conjunction with the

**GOFC-GOLD Workshop on Requirements for Fire Early Warning Systems
in Africa**

12-16 November 2007, University of Ghana (Legon)
Accra, Ghana

INTRODUCTION

Environmental change, related to both natural processes of climate variability and change and to social processes leading to land use change, is of great importance in Sub-Saharan Africa. The terrestrial impacts of human activities and climate change are most clearly seen in the concern over current and future water availability, the potential loss of the remaining humid forests, risks and uncertainties associated with highly variable rainfall on degrading agricultural, forestry and range lands, including the management and risk of fire.

Few African countries possess the required knowledge and information of environmental change processes taking place. This lack of information limits the ability of organizations to make informed decisions on environmental management. Earth observations are increasingly used in Africa to map and monitor land cover and forest change, including fire. The combination of space-based and on-the-ground observations is particularly useful to monitor environmental changes occurring across national boundaries.

The transboundary dimensions of environmental change also require organized efforts to understand, plan and implement effective responses. Of note, there has been recent concern about the impacts of large fires, particularly those burning out of control and endangering human lives, property, and natural resources (Mbow et al. 2006).

While some sub-regions within Africa have developed organizational structures through which coordinated research and action is being carried out – e.g., OSFAC (Observation par Satellite des Forêts d’Afrique Centrale) in Central Africa, the Miombo Network and SAFNet (South African Fire Network) in Southern Africa – West Africa is lagging somewhat behind. In response, an international workshop on earth observations and environmental change was held in 2005 in Senegal. With support from the international panel for Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD), over 50 scientists participated in a science review and

synthesis of the long term impacts of environmental change in West Africa. The workshop identified several research directions, including broad aspects on water issues, vegetation change, pollution, tools and methods, soil fertility and agriculture, rainfall studies, climate change, etc. (Wade 2005).

The participants decided to proceed with the establishment of a West African Regional Network to support the applications of Earth observations needed to address the pressing development and environmental problems of the region. To kick off the network, two main thematic aspects were proposed: Land Cover/Land use and Fire. These two issues are known to be of common interest amongst the West African countries and they are studied in several institutions, have global linkages and have a meaningful impact on people's livelihoods.

It is with this background that the West Africa Regional Network, in partnership with several international organizations and the SAFNet, OSFAC, and Miombo networks, is organizing the meeting on Earth Observations and Environmental Change in Africa, from 12-16 November 2007 at the Department of Geography and Resource Development, University of Ghana, Accra.

In conjunction with and following this regional network meeting there will be an additional Workshop organized by GOFC-GOLD to evaluate the requirements for fire early warning systems in Africa. The workshop will also be organized within the framework of the Global Earth Observing System of Systems (GEO-GEOSS) and the United Nations International Strategy for Disaster Reduction (ISDR).

GOALS OF THE MEETINGS

- To broaden and consolidate the organization and work of the West Africa Regional Network and establish linkages with other networks in Africa.
- To strengthen the integration of space-based and in situ earth observations of land cover dynamics in West Africa, including operational early warning systems for fire.
- To contribute to the work of the Group on Earth Observations (GEO) and related societal benefit areas in West Africa.

PARTICIPANTS

Participation is intended mainly for researchers and managers employing earth observations for environmental monitoring and analysis in the context of technical applications and institutional arrangements in West Africa. A preliminary list of West Africa organizations and participants is being prepared. Organizations in other parts of Africa working in this field include: SAFNet, OSFAC, Miombo, the Regional Sub Sahara Wildland Fire Network (AfriFireNet), and other academic institutions, international NGOs and any others interested in the use of EO in this region.

Several international organizations have a focus on combining the use of space-based and on-the-ground Earth observations to provide the data need for environmental management and decision making in Africa. These include the Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD); World Meteorological Organization (WMO) Commission on Agricultural Meteorology; Global Fire Monitoring Centre (GFMC); Group on Earth Observation (GEO); Food and Agriculture Organization (FAO: GLCN, FRA); UNISDR Inter-Agency Task Force for Disaster Reduction, Working Group on Wildland Fire; and others. A preliminary list of international organizations and participants is being prepared.

PRELIMINARY THEMES

Day 1-3. West Africa Regional Network Meeting

The meeting will include activities to further the objectives established during the 2005 workshop, which include:

1. Design the structure of the network including the identification of National Focal points and network secretariat
2. Update the inventory on priority scientific and resource management issues and the associated data and information needs
3. Inventory of current research capacities (use of survey questionnaires to identify research and education programmes in West Africa)
4. Definition of starting projects for the Land Cover Change and Bushfires sub groups
5. Define roles and responsibilities of partners
6. Identify specific sites (or transects) for long term surveys

In addressing these objectives, the meeting will also take into consideration the experiences of the central and southern Africa regional networks. Finally, the meeting will address network cooperation with related international programs including the land and fire implementation activities of GOFC-GOLD, as well as other networks (AfriFireNet, etc.) and international activities (GEO, etc.). Topics for cooperation could include, among others:

- Identify current status of national land cover mapping and change monitoring in the region and relevant land cover change information needs in various regions of Africa.
- Land cover data and applications for fuel type and burned area mapping and monitoring.
- Participation in GOFC-GOLD land cover and fire product validation effort to develop Africa test beds for global validation, including local interpretation (regional experts) of high resolution imagery.

Day 3-5. Workshop on Requirements for Fire Early Warning Systems in Africa

A recent proposal to the UNISDR was developed by GOFC-GOLD and partner organizations to develop a global wildland fire early warning system. The objectives of the workshop are to provide an assessment of the African requirements for such systems. The workshop includes a state of the art review of operational fire weather and early warning concepts, systems (EWS) and tools. Presentations will address Africa fire conditions, fire management needs and requirements for decision support tools. Results, among others, would include recommended activities for regional networks and other international partners. In particular, the workshop will contribute to the GEO work plan task (DI-06-13) to initiate a globally coordinated warning system for fire, including the development of improved prediction capabilities, analysis tools and response support through sensors, information products and risk assessment models. Topics to be discussed include:

- Identification of current fire early warning systems and procedures including those currently implemented in Africa.
- Identification of information needs for African fire early warning systems, including information content, spatial and temporal characteristics and delivery systems.
- Evaluation of a prototype Africa fire weather index.
- Identification of potential prototyping activities.
- Prepare a short workshop report on African requirements of a Fire Early Warning System for the GEO Ministerial Summit, scheduled for November 30th 2007 in Cape Town, South Africa.

VENUE

University of Ghana Conference Centre, Accra. Local hosting organization: Department of Geography and Resource Development, University of Ghana, Accra

TRAVEL

There are direct flights to Kotaka international airport in Accra from New York on North American Airlines. There are 2 flights a week during the summer and one flight a week during winter. Check their web site for updated information. Direct flights to and from Europe include: British Airways (London), KLM (Amsterdam), Alitalia (Rome), Lufthansa (Frankfurt) and Ghana Airways the national airline, which flies to Rome, London and Dusseldorf.

Several regional African airlines link Ghana to the rest of the continent including the national airline, Ghana Airways, Air Ivoire, Ethiopian Airways, and South African Airways.

ACCOMODATION

A list of recommended hotels will be provided shortly

ORGANIZING INSTITUTIONS AND PRINCIPAL SPONSORS

University of Ghana; Cheikh Anta Diop University, Senegal; GOFC-GOLD (START, CFS); EC-JRC; WMO; GEO; UNISDR

ORGANIZING COMMITTEE

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Wade, Souleye 2005. Setting the benchmark – What do we know/What is our future? A science review and synthesis workshop on the long-term impacts of environmental change in West Africa. 17-19 August 2005, Dakar, Senegal, UCAD-II Conference Centre. Volume 1: Science.