



GMES and AFRICA Technical Workshop on Environment and Agriculture 6th December 2007

**Jointly organised by
EC Joint Research Centre,
European Space Agency
EUMETSAT**

at the initiative of the Portuguese EU Presidency

Centro Cultural de Belém, Lisbon

Background

The sustainable management of natural resources is a key element of poverty reduction strategies. It also helps meet other key development policy objectives, such as improving health, increasing agricultural productivity and promoting peace and security. Sustainable development of rural areas in Africa faces a host of challenges compounded by the globalization and climate change: food supply (Agricultural production should double at the horizon 2030), sustainable use of natural resources (water forest and biodiversity), opportunities related to the development of bio-fuels and the carbon trade. Rural development is central in the Agenda for Sustainable Growth and Poverty Reduction in Africa and ACP countries as recently reaffirmed in the Forum and Platform between donors assembled by the German Presidency of the Union (Berlin 18-22 June 2007).

For the last ten years, considerable efforts have been pursued to improve the management of natural resources through the use of geospatial tools, such as earth observation imagery, geographical information systems, ecological models and socio-economic analyses. GMES addresses some of those items.

In 2006, the African/ACP partner countries signed the Maputo declaration explicitly asking for a 'GMES-Africa'. They received a positive answer from the Commissioner in charge of Development and Humanitarian Aid. The Maputo Declaration also linked the activities undertaken in Africa with the GEO Initiative and "GMES-Africa" could become an African contribution to GEO. The present workshop will explore possible lines of activities which can provide content to the initial phases of the GMES-Africa initiative.

Objectives of the Workshop

The aim of the technical workshop is to bring together African, European and International user and supplier communities and organisations to consolidate the operational handling of Earth Observation and related technologies for sustainable management of natural resources in Africa.

The workshop will first go through an examination of existing programmes which can provide the foundation for further GMES developments (AMESD, ACP Observatory, TIGER, GMFS, PUMA, , national programmes...). The presentations will provide information on the context, the requirements, underpinning infrastructure, networking and partners. The workshop will proceed with an examination of selected applications in Africa and conclude via a roundtable discussion.

In addition the Workshop is intended:

- To inform the EU Member States and the African stakeholders of the goals and the activities of the existing European initiatives and to promote the coordination among EU Member states for such activities;
- To demonstrate that the successful implementation of development projects aiming at fostering the use of EO information in Africa is relying on a tailored scientific support.
- To feed networks of European and African partners working in the monitoring of natural resources and supporting decision making processes for sustainable development in line with the strategic orientations identified by the African partners (African Union Commission and Regional Economic Communities) in the projects supported by EC, ESA and EUMETSAT;
- To contribute to the concept for GMES-Africa and to a roadmap for initiating the GMES-Africa programme on the basis of existing research and development projects.
- To elaborate a number of conclusions/recommendations that will be presented at the Portuguese EU presidency event on "Space for Development: the case of GMES and Africa" on December 7. 2007.

Outcome

The workshop is expected to

- feed the GMES-Africa initiative with additional understanding on how to render existing initiatives in environment, agriculture and security monitoring more sustainable
- identify those areas of current application which can benefit from further development in earth observation technologies and in-situ measurements systems
- identify steps to be taken to accelerate partnership and capacity building

The results of the workshop will demonstrate the added value of GMES for Africa and provide input into the more political event which takes place on December 7th 2007.

Programme

9:00 – 9:30 Common introductory session (Environment and Security Workshops)
Room: “Sophia de Mello Breyner”, Centro Cultural de Belém

"The role of Earth Observation in addressing current issues related to the sustainable management of African resources and the security of its citizens".

Gérard Brachet - Chair of the UN Committee on the Peaceful Use of Outer Space - COPUOS

Space Applications for Africa; summary of debates and conclusions of the Development Days and the conference “From Early Warning to Early Action”

V Moutarlier (GMES-Bureau, DG ENTR)

10.00- 13.00 – Morning session

Room: “Sophia de Mello Breyner”, Centro Cultural de Belém

Existing Initiatives and Perspectives–

Chair: M. Doherty, ESA

Rapporteur: V. Gabaglio, EUMETSAT

- 1 TIGER Mr Maxwell Donkor, UN-WATER Africa, UN Econ. Comm. For Africa
- 2 PUMA: outcome and lessons learned. Col. Benjamin N'Dala, CICOS
- 3 The AMESD Programme Dr. Debalkew Behre, IGAD
- 4 The ACP Observatory for Sustainable Development –Ph. Mayaux, EC/JRC
- 5 Member States initiatives/FP6 Actions:
ROSELT Network - Frederic Huynh, IRD France
VGT4Africa. VITO, Belgium
- 6 African Union's preliminary views of GMES Africa – Dr. Ahmadu Babagana, AU
- 7 Space applications for/with Africa – Dr. António Neto da Silva, PROESPAÇO

Discussion (40 minutes)

LUNCH 13.00 – 14:00

14.00 – 16.00 Afternoon session –

Key Applications

Chair: H De Backer, EC/DG Dev

Rapporteur: Diego Fernandez, ESA

- 1 Observatory for **Forests** in Central Africa J. Nagahuedi (COMIFAC - Cameroon)
- 2 **Biodiversity:** Monitoring of Important Bird Areas J. Arinaitwe (Birdlife Africa Kenya)
- 3 **Rangeland Monitoring and Livestock** J. Ndikumana, ASARECA
- 4 **Food Security and Rural Development**
Crop monitoring M. Y. Ould Mahmoud - Agrhymet
GMFS Project: Area Estimates in Eastern Africa (I. Mwale, Malawi)
- 5 **Desert Watch (tbc Lolita Hilario Fondo, UNCCD Mozambique)**
- 6 **Water resources:** TIGER Monitoring Aquifers from Space- Mr Youba Sokona, OSS / Water quality Monitoring System in Lake Victoria – National Fisheries resources Institute-Uganda (J. S. Baliirwa, Fisheries Resource Institute, Uganda)
- 7 Large **Marine** Ecosystems (G. Brundrit Cape Town University)



8. An ACP Application: EO as tool for **sustainable development**; the case of Haïti (G. Porcena-CNIGS-Haïti).

Coffee break 16.00-16.15

16:15-17:30: Round table – Way forward for GMES Africa

Moderator: J.P Malingreau, EC/JRC

Rapporteur: José Pereira, Technical Univ. of Lisbon

Participants: African Union - A. Babagana, ACP Secretariat - O. Ojo), EC- H. DeBacker DG Dev, ESA - Mark Doherty , Eumetsat - Paul. Counet, P presidency - Prof. Filipe Duarte Santos, African Research Institution -André Bassolé, Regional Economic Commission -Raj Mohabeer; Industry- EARSC, P. Kamoun.

17:30 – 18:00 - Joint Wrap-up session with the Security session

Report by the Moderators