



ACMAD

African Centre of Meteorological Applications for Development

“African Early Warning and Advisory Climate Services (AEWACS Project)”

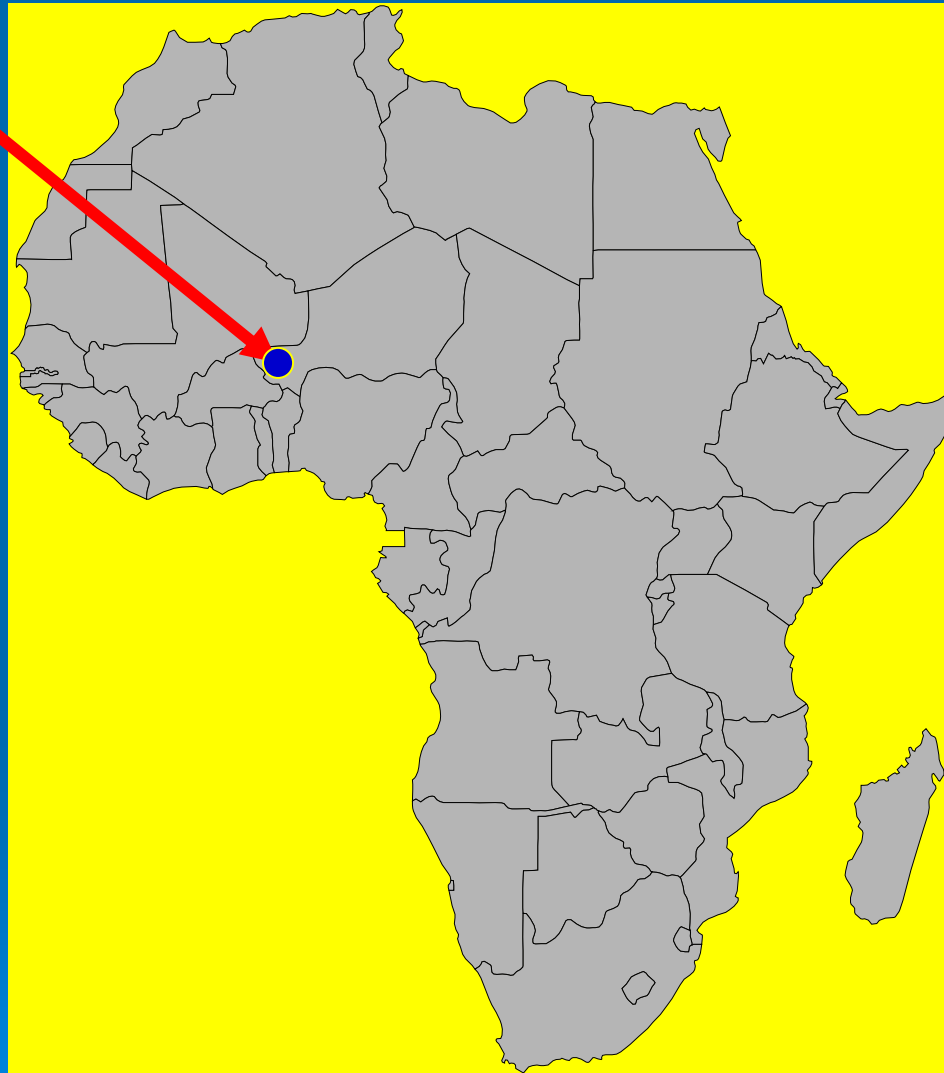
*A contribution to Climate Related Disaster Emergency
Response*

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Addis Ababa 06 July 2010
UN-SPIDER Regional Workshop «Building Upon Regional Space-based Solutions for Disaster
Management and Emergency Response for Africa»
Addis-Ababa, 06-09 July 2010



A brief overview of ACMAD its activities, its strategy



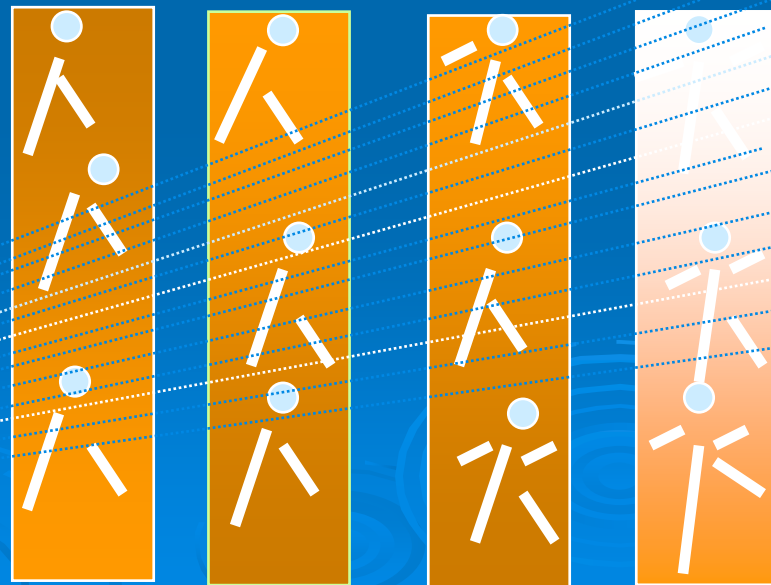


OUR VISION

**Making Weather, Climate and Environnement,
Resources for Sustainable Development**

This is a big challenge for a small centre

- Created in 1987 by UNECA and WMO
- Established in Niamey since 1992
- Mandate for Africa (53 countries)
- Staff : between 25 and 30 persons
(scientific, technical and logistical staff,
including some non permanent resources and
trainees for less than six months)
- Annual Budget : about 1 000 000 €
(Board of Governors 2008)





OUR MISSIONS

- **Serve the sustainable development of Africa through meteorological and climate applications needed in social and economic growth sectors**
- **Serve as a centre of information provision for the implementation of policies for vulnerability reduction and adaptation to climate variability and change**
- **Provide training in weather and climate for capacity-building in African meteorological institutions**
- **Serve as a vehicle for knowledge transfer and exchange amongst sustainability development actors**



At the heart of meteorological applications for development

ACMAD at the heart of a network grouping scientific and technical institutions and specialised users in climate sensitive sectors :

- Agriculture and food Security
- Water resources management
- Health
- Environmental Protection
- Protection of life and property
- Renewable energy management
- Transport

For truly integrated sustainable development, ACMAD intervenes, at all space scales, continental, sub regional and national, using the principles of solidarity and of subsidiary.



Our products for all the continent

Analysis and forecast bulletins at various time scales

- Short range bulletins 1-3 days
- Seasonal rainfall forecast 3 months : PRESAO (JAS), PRESAC (OND).

Numerical Weather Prediction products

ACMAD is running a limited area model **RM3** in collaboration with CCRS/GISS/Columbia University. Model outputs are available at website

Climate Bulletins

- Ten Days Climate Bulletin
- Monthly Bulletin

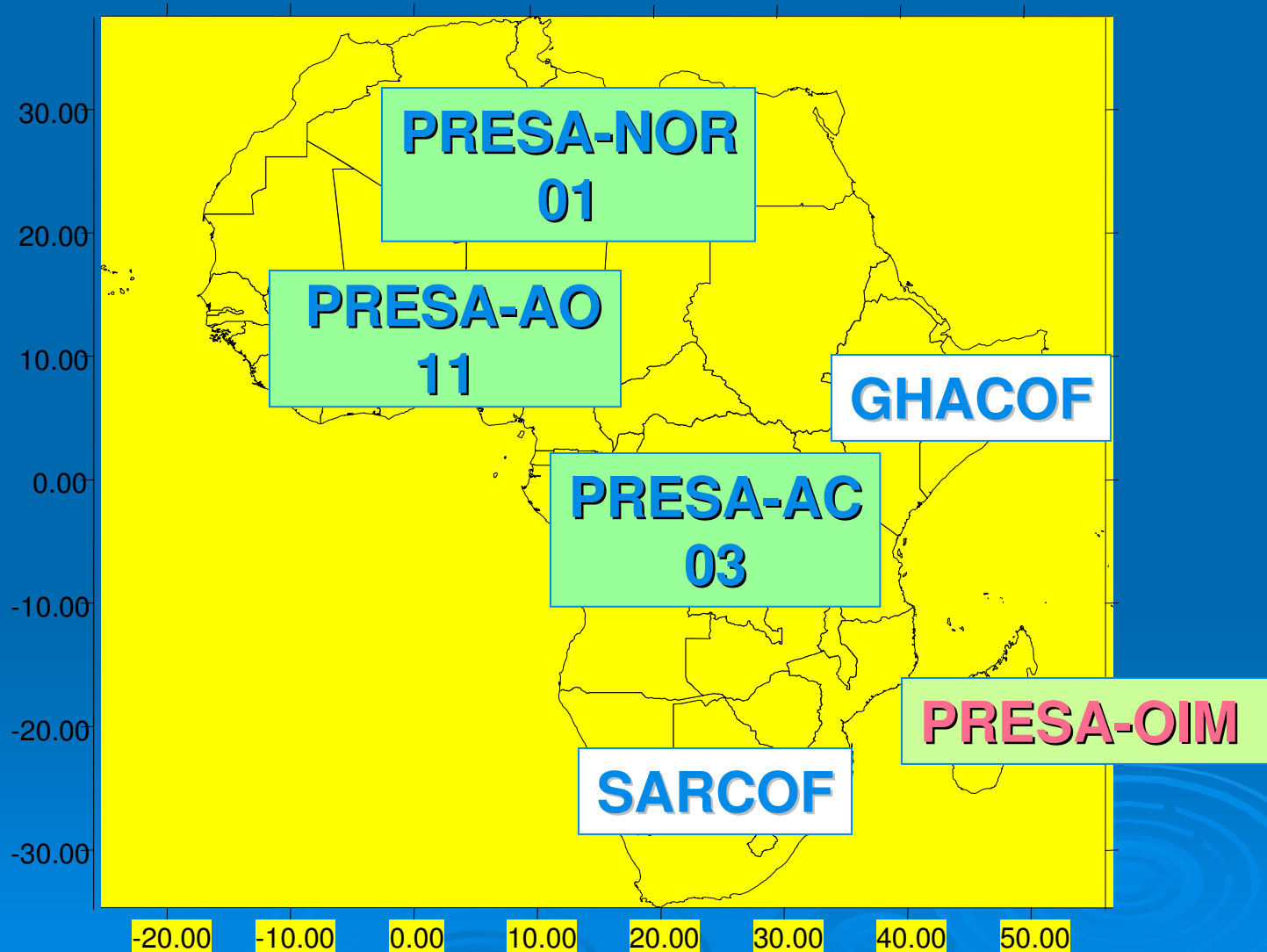
Specific Bulletins

- Climate and Health
- Sahel medium range forecast 7-10 days (during the monsoon season)
- Weekly Rainfall forecast

All these products are sent via email to NMHSs and other users and available at :
<http://www.acmad.org/>



Sub-regional Climate Outlook Forums (COF)





Some examples of measures taken in West Africa following PRESAO Bulletin

BCEAO

Used in Inflation forecast / Control Prices of food products

UNICEF /Niger in coordination with Public Health (PNLP)

**Doubled quantity of medicine for malaria and other logistic equipment (mosquito nets...)
Better preparation of the season with additional training for « monitoring » staff**

ECHO (European Commission's Humanitarian Aid Office) Dakar regional office

Early warning system for risk of flooding

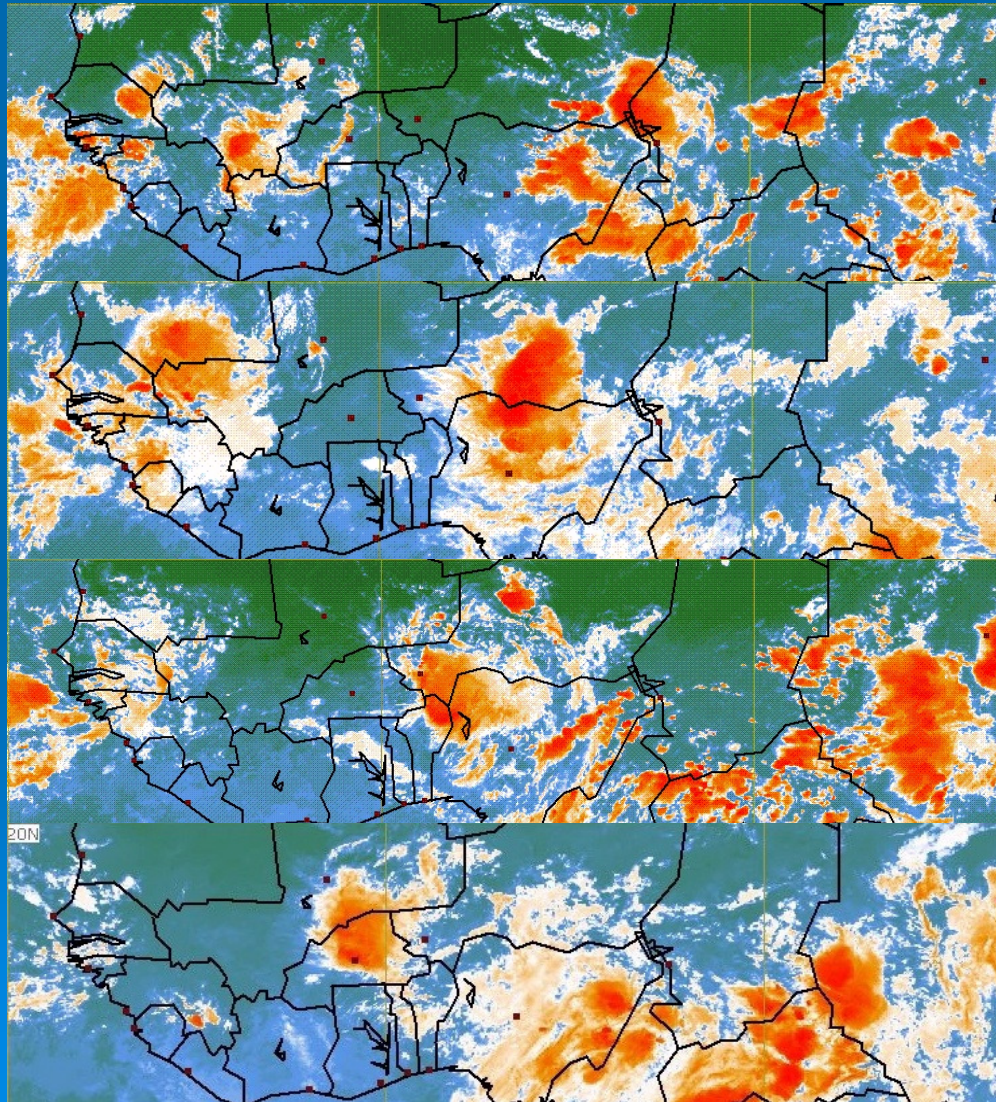
FICR Dakar regional Office

Early warning system for risk of flooding



Use of satellite data

Monitoring of weather systems, Operationally
for Early Warning and for Research and Training



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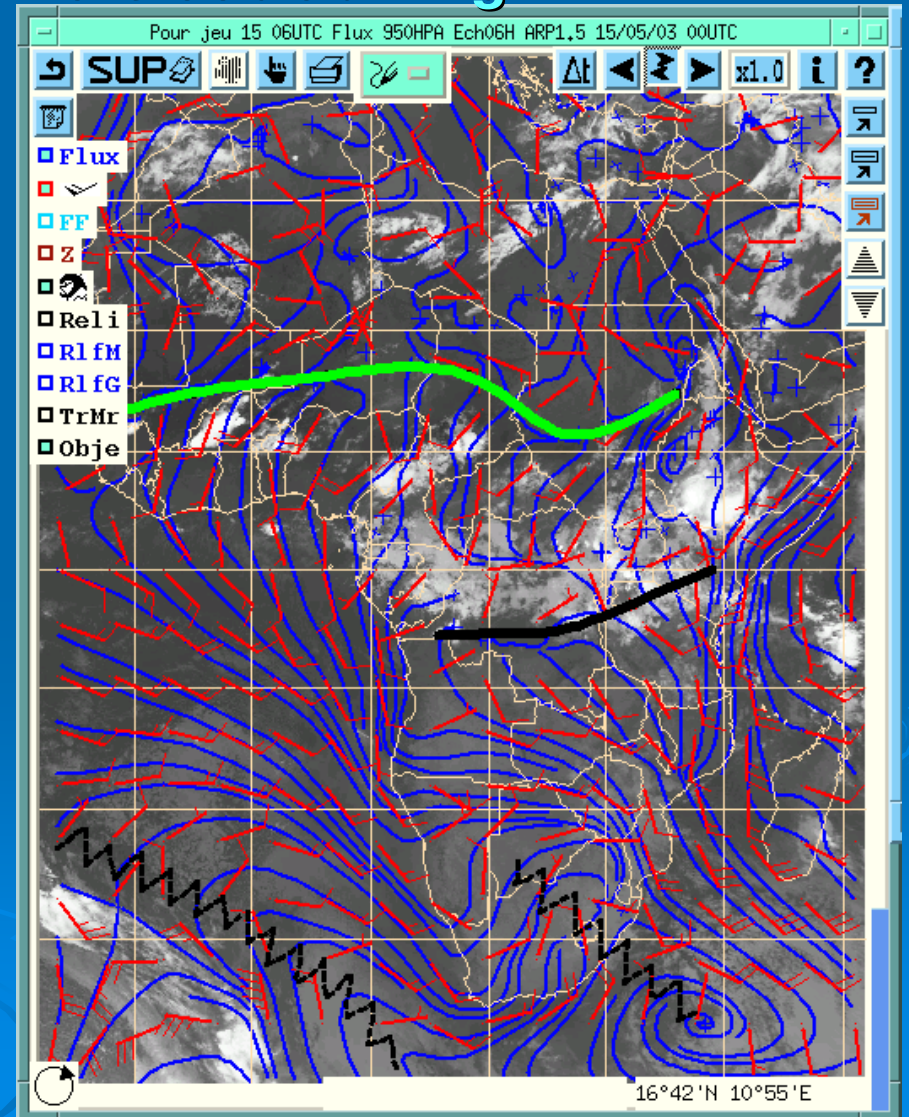
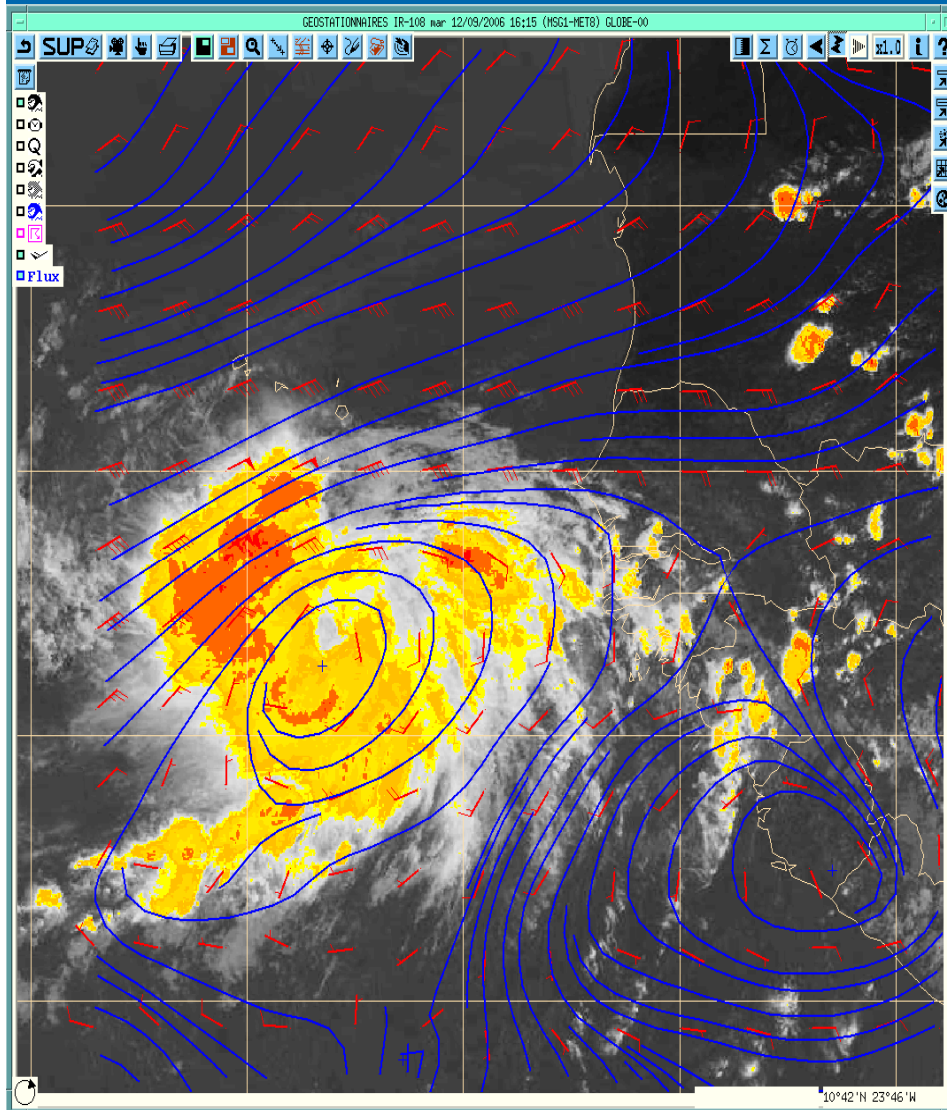
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Use of satellite data

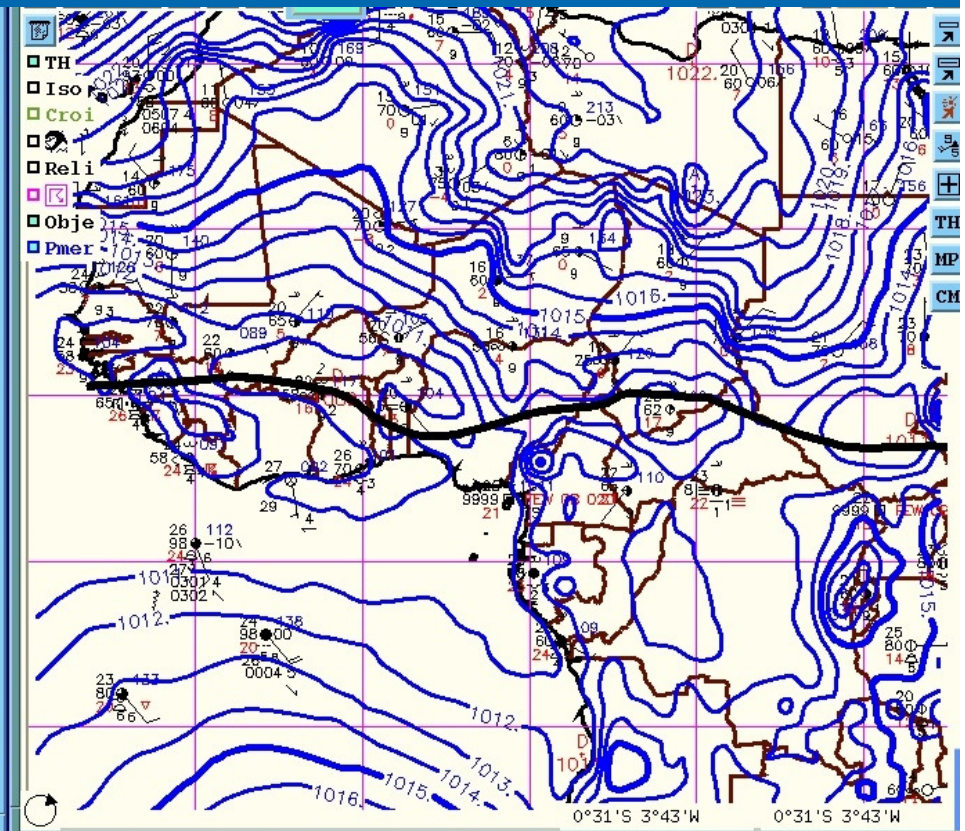
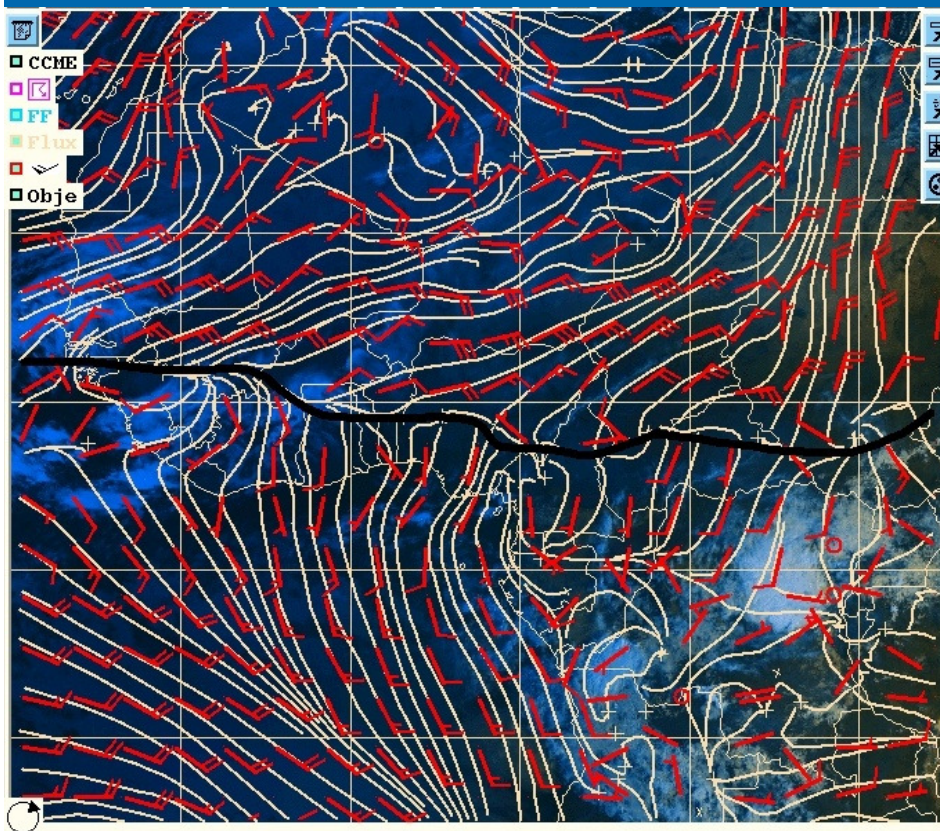
MSG Products combined with NWP model output
for Research and On-the-Job training





Use of satellite data

Research : projects for students in other institutions, such as EAMAC in support of their theses





AEWACS (VigiRisC)

African Early Warning and Advisory Climate Services

To reinforce adaptation capacity of African countries to climate change and variability

This project will help ACMAD playing its role within the framework of ClimDev Africa Programme

Domain of activities:

- **Food security : rainfed agriculture, pastoralism**
- **Water resources and risks associated with river flow** (Congo, Niger...)
- **Health : malaria, meningitis or other diseases**
- **Civil protection, coastal zone, Storm surges : high tides and sea level rise** (Mauritania...)
- **Severe and high impact weather phenomena**



AEWACS - VigiRisC Afrique

Objectives :

Reinforcement of adaptation capacity of African countries to climate change and variability

Capacities of African countries for the prevention of risks and socio-economic impacts related to climate variability and climate change are reinforced through relevant and adapted tools and services of climate early warning and advisory .



AEWACS - VigiRisC Afrique

CONTEXT

- 2006 : Addis Ababa meeting, for an Action Plan for Africa « Climate Information and needs of development » (ClimDevAfrica), at the initiative of GCOS secretary and UNECA (UN Economic Commission for Africa).
- 2006 : African Component of UN *International Strategy for Disaster Reduction* (ISDR)
- January 2007 : African Union Heads of State Summit declaration on climate change and development in Africa
- 18-19 March 2008 : ClimDev Africa experts meeting, with AU, UNECA, AfDB (African Bank of Development) confirmed the coherence of AEWACS project with the various objectives and results of ClimDevAfrica.

AEWACS project must be considered as a component of ClimDevAfrica, and perhaps a precursor of its implementation



AEWACS - VigiRisC Afrique

PROJECT DESIGN

- stimulate and feed the “trialogue” between :
 - National Meteorological and Hydrological Services,
 - Policy makers and communities in charge of the sustainable and economic development
 - Civic Society
- mainly demonstrative : «*we can do it*»
- **Solidarity** : Most advanced african countries, and North Institutions will have to provide required expertises in coordination with the ACMAD
- Targeting of demonstrative actions will be carried out at the same time geographically and thematically
- Project is based on subsidiarity which aims to give responsibility to the adequate actors at each level, in particular national, for the development and maintenance of climate early warning products and services



AEWACS - VigiRisC Afrique

- **BENEFICIARIES:** ALL AFRICAN COUNTRIES,
- **SCALES :**
 - LOCAL – NATIONAL – REGIONAL SCALES,
 - BASED ON OBSERVATIONS and SHORT RANGE - MEDIUM RANGE – SEASONAL FORECAST
- **LEAD AND COORDINATION:** ACMAD
- **DURATION:** 3 YEARS starting early 2009
- **TOTAL AMOUNT :** 4 000 000 euros
 - Total for France (FGEF, AFD, Foreign Affairs Ministry) : 2 845 000 €,
 - African Bank of Development : 325 000 €,
 - UNECA, IFRC, ACMAD, partners : 830 000 €



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Expected Results

Result 1 :

- Profiles of pilot early warning and advisory products are identified according to :
 - end-users and development community needs,
 - data availability requirements for new pilot products,
 - Peer review and evaluation of existing early warning systems, best practices and forecast capacities.

We believe that participative need assessment should contribute to development community awareness



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Expected Results (ctd)

Result 2 :

- Selected pilot early warning and advisory products are operational, developed and implemented by national institutions with the support of ACMAD expert network
- Risk prevention plans are reinforced through the integration of pilot early warning advisory services

At least 5 pilot demonstrative products will be developed (one for each theme)

- Development of the pilot products by the institutions concerned with the support of ACMAD technical and expertise network.
- Training of the users



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Expected Results (ctd)

Result 3 :

Wide information dissemination and communication effort to increase awareness of development community related to integrated climate risk management.

Activities :

Training and capacity building

Monitoring and evaluation

Knowledge management

Website and ACMAD newsletter

Animation of AEWACS network

Benchmarking and cooperation with other regions

Experience and best practices sharing

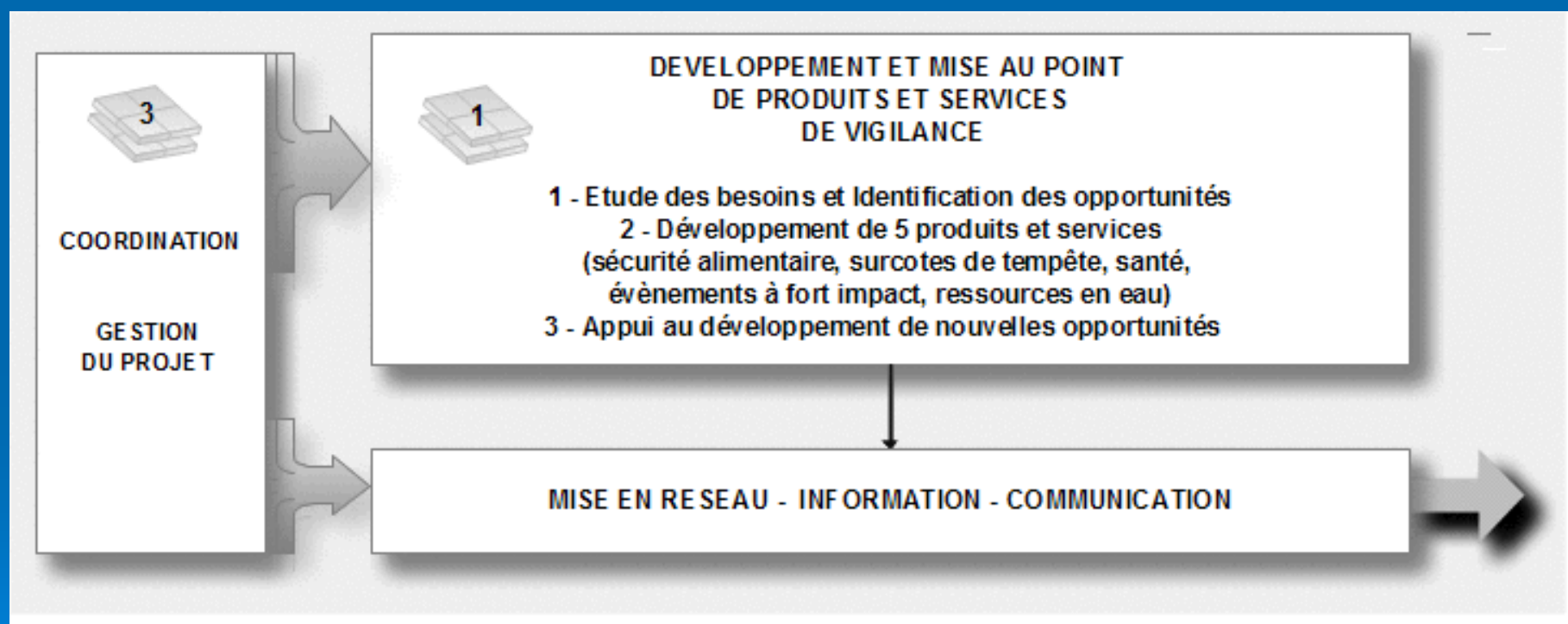
The peer review is expected to result in a map of african early warning capacities, which can be used to share experience with other stakeholders.



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PROJECT COMPONENTS

3 components





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Main Stakeholders involved

1. Development communities

- **African Union and the Joint secrétariat AU/UNECA/AfDB for ClimDevAfrica, once established**
- **UNECA and its Sub-regional Offices**
- **African Développement Banque**
- **Regional Economic Communities (ECOWAS, CEMAC, SADC, IGAD)**
- **Countries:**
- **Local governments**
- **Private sector and Civil Society**
- **International Federation of Red Cross and Red Crescent (IFRC)**



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Main Stakeholders involved (ctd)

2. Technical and scientific communities

- **WMO, ISDR, GCOS.**
- **Technical regional Centers** (ICPAC, DMC, AGRHYMET), **NMHS**, National services in charge of Disaster Risk Management.

3. International technical Partners

- **Météo France, UK Met Office, AEMET**
- **IRI (USA), IDDRI (France)**
- **ICRISAT**



THANK YOU FOR YOUR ATTENTION

<http://www.acmad.org>