

## **Capacity building workshops, February 23-27, 2004 Nairobi, Kenya**

Three workshops were hosted concurrently during this period and the themes were as follows:

1. Development of a regional strategy for factoring climate information into disaster management
2. Training of the National Meteorological and Hydrological Services in dynamic climate modeling
3. Downscaling and interpretation of probabilistic forecast information for agricultural application to enhance food security in the region

### **1. Development of regional strategy to factor of climate information into disaster management**

#### ***Findings***

1. The impacts associated with extreme weather and climate events often retard socio-economic growth of many developing nations, such as GHA Countries, as exemplified by the 1997/98 El-Niño related floods that were immediately followed by the 1999-2000 La Niña related drought and the 2003 floods whose effects will linger on for along time;
2. The majority of the rural communities who contribute significantly to the national economies and, are most vulnerable to extreme weather and climate events, rarely receive and use weather and climate information due to poor dissemination, inadequate capacity to interpret the climate outlooks and lack of awareness;
3. Weather and climate is rarely factored in the decision-making processes of the majority of sectors which are climate-dependent including economic planning;
4. The impacts of the recent floods and drought in the region have aroused an increase in demand for weather and climate information and a general rethinking of how the region should cope with climate related disasters.
5. Over 70% of natural disasters in the GHA are related to extreme climate events, which are often associated with severe socio-economic impacts that include lack of food, water, energy and many other basic needs
6. The Intergovernmental Authority on Development (IGAD) has taken an initiative to formulate an integrated Disaster Management Policy.
7. The NMHSs and DMCN have databases, and some capacity that can be used for risk zoning, vulnerability and impacts assessment for planning and management of all climate sensitive activities.
8. There are still deficiencies in NMHSs, DMCN and the sectoral institutions in the development and applications of weather/climate information in support of disaster management and sustainable development.

## ***Recommendations***

1. Carry out awareness campaigns to sensitize the public on the benefits of using weather and climate information in their economic activities.
2. Enhance the capacities of users to interpret, and apply weather and climate information be enhanced through national workshops.
3. Add more value to climate information to make them relevant to the needs of specific sectors.
4. Conduct further analyses of climate risks and vulnerability to address specific user needs
5. The NMHSs and DMCN make every effort to enhance linkages with the relevant institutions;
6. Capacities of NMHSs and DMCN be enhanced to improve the efficiency in the generation and dissemination of products, and data exchange including the capacities in specialized methods and technologies;
7. Support the NMHSs and DMCN to develop need driven climate information products, to enhance their effective contribution to disaster management and sustainable development in the GHA.
8. Implement projects to enhance the generation and application of weather/climate information to address climate related disasters.

## **2. Dynamical Climate Modeling Workshop**

### ***Recommendations***

1. Need for capacity building in dynamical modeling (workshops, seminars, attachments to advanced modeling centers, and advanced formal training including MSc. and PhD).
2. There is a dire need for increased computing facilities e.g. fast Internet connectivity, high processing speed computers and storage media.
3. There is a need to acquire software for the processing of the input /output e.g. latest Fortran compilers, Unix operating systems, Grads, Vis5, etc.
4. Acquisition and adaptation of more climate models.

## **3. Agriculture downscaling workshop**

The goal of the workshop was to train agricultural experts in the interpretation and downscaling of the climatic products for operational applications in the agricultural and food security sectors.

### ***Specific objectives:***

- Conversion of rainfall probabilities into actual rainfall amounts.
- Determination of onset, distribution, cessation and dry spells
- Determination of suitable agricultural and livestock practices for specific season/ area
- Forecasting crop performance using rainfall amounts
- Risk computation in agriculture

## ***Recommendations***

1. Continue the support of Pilot application projects on production and dissemination of downscaled climate information
2. Equip users of climate information products with necessary hardware and software for production and dissemination of downscaled information.
3. Provide further training in specialized software packages such as Arc-View to enhanced application of the products.
4. Carry out agricultural outlook forum (food security outlook) in parallel with the climate outlook forum.
5. Need for a training course on GIS and database management for efficient and enhanced application of the forecasts.
6. The climate products should be downscaled into rainfall amount
7. Onset and cessation information should be released well in advanced (for strategic decision making).
8. There should be a feedback component from the end users to the users and to the producers.
9. Increase the density of weather stations to adequately cover the all agro-ecological zones.
10. Revive extension services and use it for the dissemination of early warning climate information.
11. Monitoring mechanism should be put in place to evaluate the use and impact of the climate information.
12. A multi-sectoral team both at national and local levels should be put in place to handle the dissemination of the climate information.