ICPAC INTERGRATED CLIMATE EARLY WARNING ACTIVITIES IN THE GREATER HORN OF AFRICA:
Enhancing hydroclimate monitoring, early warning and applications for the reduction of climate related risks

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MAJOR AFRICAN DISASTERS

- **DROUGHT:** Too little water resulting from deficient precipitation;
- **FLOODS:** Too much water from excessive precipitation;
- **HIGH/LOW Temperatures;**
- **Land slides, Desertification; Forest Fires; Dust Storms; Heat Waves;**
- **Hazards Over Lakes and Ocean/Coastal Zone;**
- **Disappearing Mt Glaciers;**
- **Locust, Army Worm, Malaria; Vector borne Pests and Diseases;**
- **Tsunami; Bird Flue;**
- **Disasters of Geological Nature;**
ICPAC EARLY WARNING EXPERIENCES FOR DISASTER RISK REDUCTION

♦ DATABASE:
  PAST STATISTICS: RISK ZONING AND MAPPING; VULNERABILITY / IMPACTS ASSESSMENT; DEVELOPMENT OF SCENARIOS
  CURRENT STATE - MONITORING INCLUDING USE OF REMOTE SENSING PRODUCTS

♦ EARLY WARNING - 10 DAY, MONTHLY AND SEASONAL PRODUCTS

♦ CAPACITY BUILDING OF SCIENTISTS AND USERS

♦ DISSEMINATION, OUTREACH AND POLICY ISSUES INCLUDING ROLE MEDIA

Key Current Problems

♦ Non Use of Available Information
♦ Lack of Capacity to Effectively Maximize Climate Information Use
Project activities: Enhancing hydroclimate monitoring, early warning and applications for the reduction of climate related risks

Hyogo Framework for Action, and the Millennium Development Goals: addressing Challenges Posed by the Natural Disasters of the Specific Regions

♦ Improvement of Regional Climate Modelling, Prediction and Early Warning;
♦ Increased availability of Sector Specific Tailored Climate Products;
♦ Improvement of Data Base;
♦ **Outreach:** Dissemination; **Interactions:** Climate Outlook Forums, Media;
♦ Gender;
♦ Indigenous Knowledge;
♦ **Capacity Building** of Scientists and Users;
♦ Policy Issues;
WEATHER / CLIMATE INFORMATION, PREDICTION AND EARLY WARNING PRODUCTS

KYOGO FRAMEWORK CHALLENGES

WATER SECTOR

AGRICULTURE SECTOR

HEALTH SECTOR

ENERGY SECTOR

Integrated
DECADAL RAINFALL VARIABILITY

Zone 11 (Entebbe)

Zone 3 (Masindi)

Zone 26 (Kisumu)
FLOOD FORECASTING
With WMO, USGS, NOAA

SFM NYANDO 1985_88

FLOW (M3/S)
OBSERVED
BASIN2
BASIN1
BASIN3

TIME
Malaria epidemic prediction model

Epidemic Risk %

Case anomaly

Percent risk

Cases: Percent above mean

Months and year

JAN97 APR JUL OCT JAN98 APR JUL OCT JAN99 APR JUL OCT

Githeko

KEMRI

Epidemic Risk % Case anomaly
KEY CHALLENGES

- Resources
- Lack of Capacity to Effectively Maximize Climate Information Use
- Policy Issues

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