



The Structure, Governance Process, Production, Packaging and Dissemination of Weather and Climate Services in Uganda

By

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UNMA

INTRODUCTION

MANDATE, VISION AND MISSION

Mandate

- The mandate of the UNMA is to establish and maintain weather & climate observing station networks, collection, analysis and production of timely weather and climate forecasts and information to support social and economic development of the country.

Vision

- The vision of UNMA is **“to be a centre of excellence on weather and climate services for sustainable development of Uganda.”**

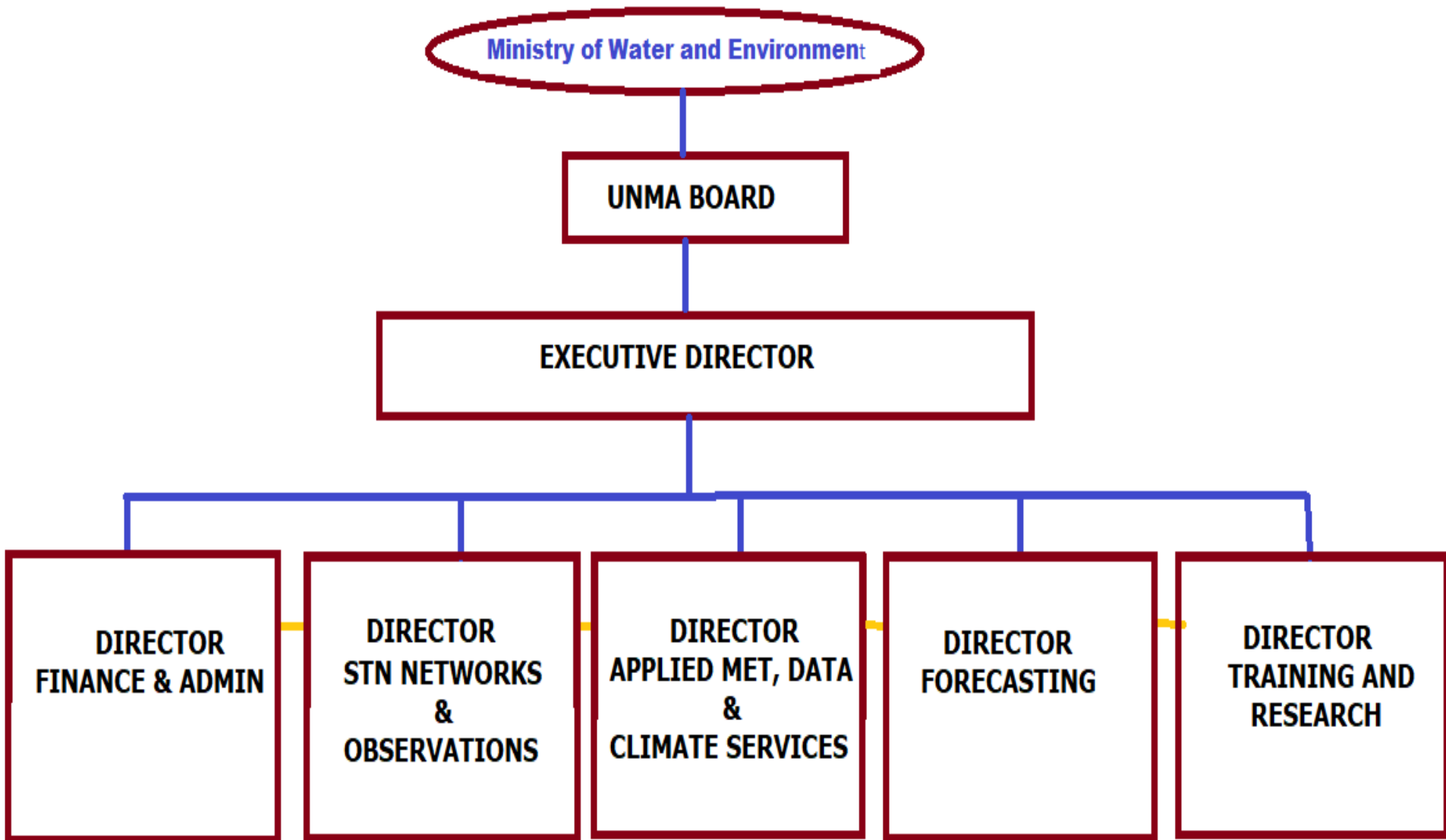
Mission

- The mission of UNMA is **“to contribute to overall national development through provision of quality, customer-focused, cost-effective and timely information for weather and climate services to all users.”**

The UNMA strategic plan is based on the NDP II and the Uganda Vision 2040 with the following strategic objectives towards products and services

- 1) To improve the **quantity and quality** of meteorological services for all stakeholders.
- 2) To promote **greater awareness** of the benefits of using meteorological services, information and products.
- 3) To build **a skilled and motivated workforce** through good human resource practices.
- 4) To improve **the accuracy and reliability** of forecasts and advisory services through the development of climate prediction and short-term weather forecasting capability.

The Strategic level Organogram of UNMA



TYPES OF CLIMATE PRODUCTS GENERATED BY UNMA

1. Products on Past Climate

- Historical climate datasets (from 1896-to date)
- Observed climate variability and climate change trends
- Any other information and statistics concerning past climate

2. Products on Current State of Climate

- Real time data
- Information on evolution of ENSO (El Nino & La Nina) events
- State of Sea Surface temperature

PRODUCTS Cont...

3. Prediction products and advisories

- ✓ Seasonal Climate Outlooks (Major product)
- ✓ Alerts of severe weather (6hourly)
- ✓ Daily forecasts
- ✓ Dekadal agro-meteorological bulletins
- ✓ Monthly climate bulletins
- ✓ Climate change Projections for different parts of the country

PRODUCTS Cont...

4. Specialized products

- ✓ Aviation products
- ✓ Marine products
- ✓ Defense Products
- ✓ Specific services and tailored products for different users (E.g, Agricultural Insurance/weather Insurance Index, Commercial farmers, Mukwano, Kakira, etc)

Major stakeholders/users

- **Government Ministries, Departments and Agencies**
- **Consultancy Firms**
- **Academia & Research**
- **Banking Industry**
- **Private sector**
- **Construction,**
- **NGOs**
- **Insurance companies** (UIA, Min. of Finance, and UNMA through Operation Wealth Creation program are implementing Uganda Agr. Insurance subsidy scheme which will provide insurance premium subsidies to farmers. The scheme is largely to protect farmers against effects of agr. Risks:-UNMA will provide Weather insurance Index, Wx monitoring & predictions)
- **etc.**

Strategic Partnerships

- **Local Governments in Uganda;** A number of districts have provided land for UNMA meteorological installations
- **UNDP** has mobilized financial resources from GCF through the SCIEWS Project to improve UNMA operations
- **GIZ/USAID Joint Support;** Provided 23 AWS & supported translations of Seasonal Forecasts;
- **NARO;** 15 AWS
- **WFP;** World Food Program has supported Districts with 23 Davis Automatic Weather Stations in Karamoja, Northern and Teso regions;
- **Private Sector;** Companies like Kinyara Sugar Limited, Kakira Sugar Works, Tilda, have established networks of Weather Stations within their Districts of operations;
- **NGOs;** World Vision Uganda –WISER Project, Action aid Uganda and Plan International have supported establishing Automatic Weather Stations in Uganda



**Gov't
Ministries &
Agencies**



Users



World Vision

**Seasonal
climate
Products**



Oxfam

CSOs

Media



Save the Children®

STATUS OF WEATHER EQUIPMENTS

- **Major weather stations across the country**
 - 12 Synoptic station feeding the GTS
 - 16 Agro-Met stations (NARO)
 - 14 Hyd-romet stations
 - 106 rainfall stations
 - 32 Automatic weather stations (AWS)
 - 1 Upper air station at Entebbe airport
 - 1 Radar Installed 2 under procurement process

Coverage of Weather Stations

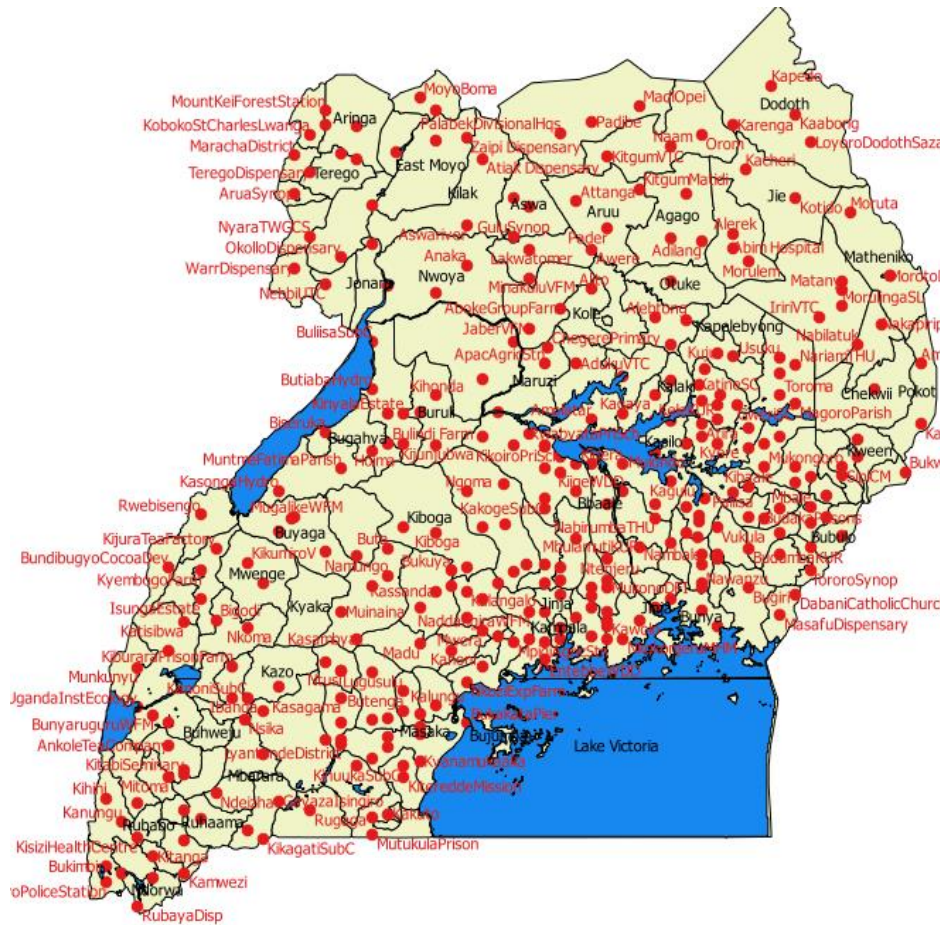


Fig1: Weather stations before Collapse of EAC 1977

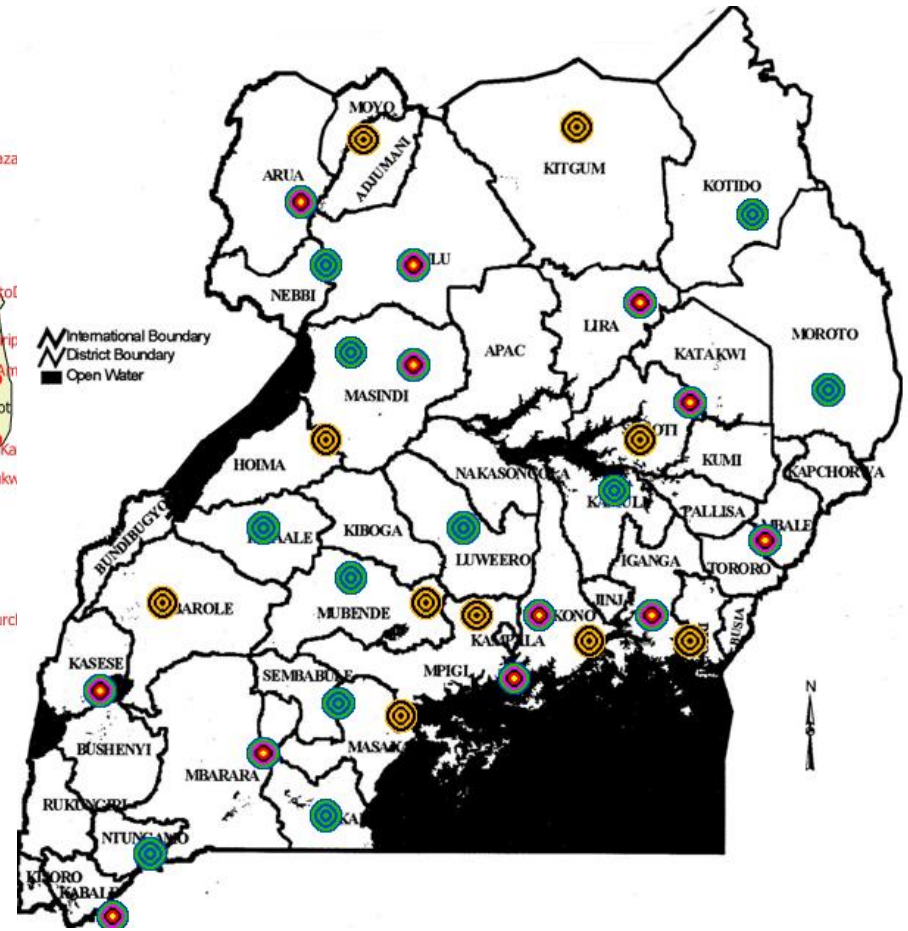
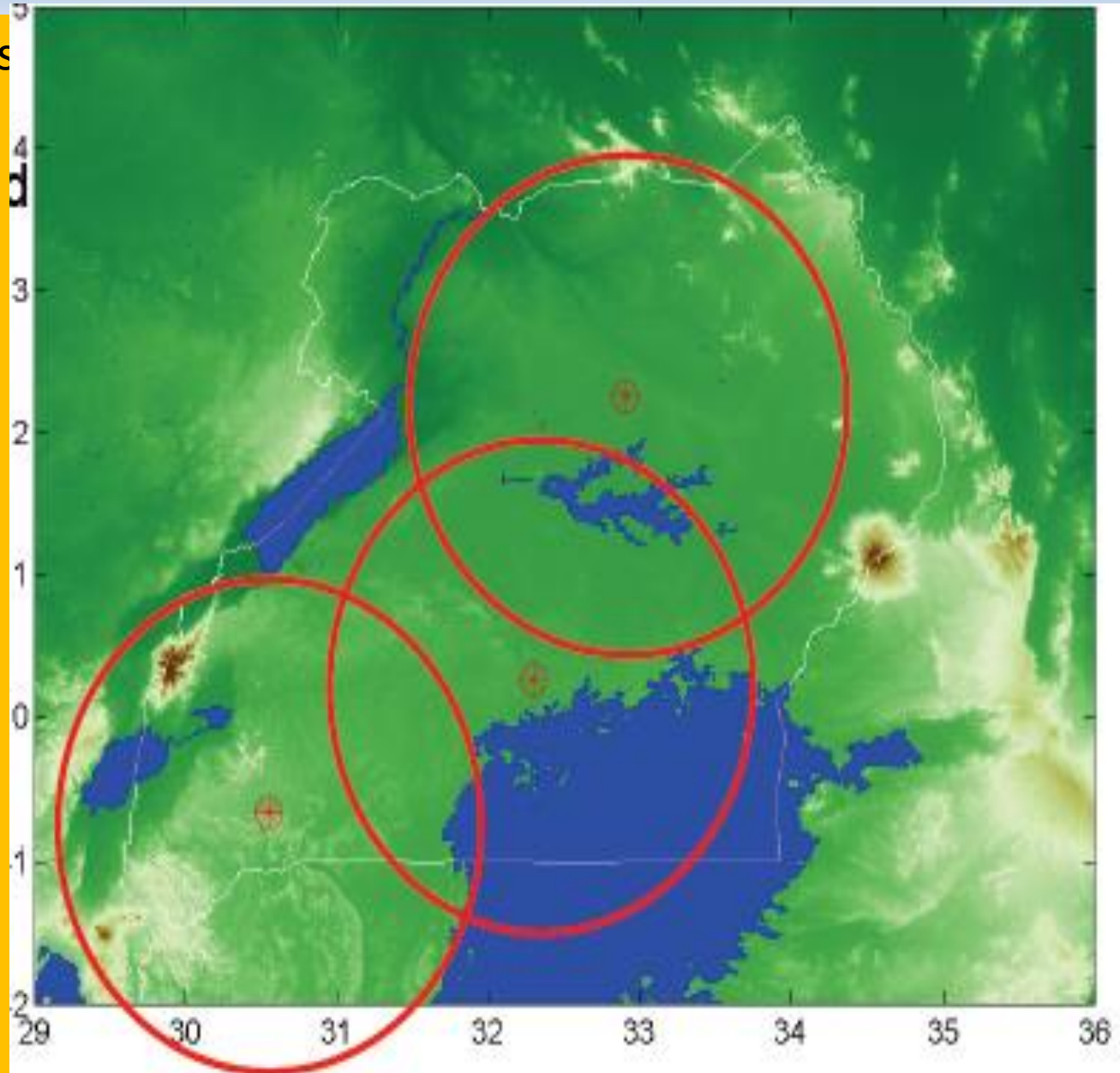


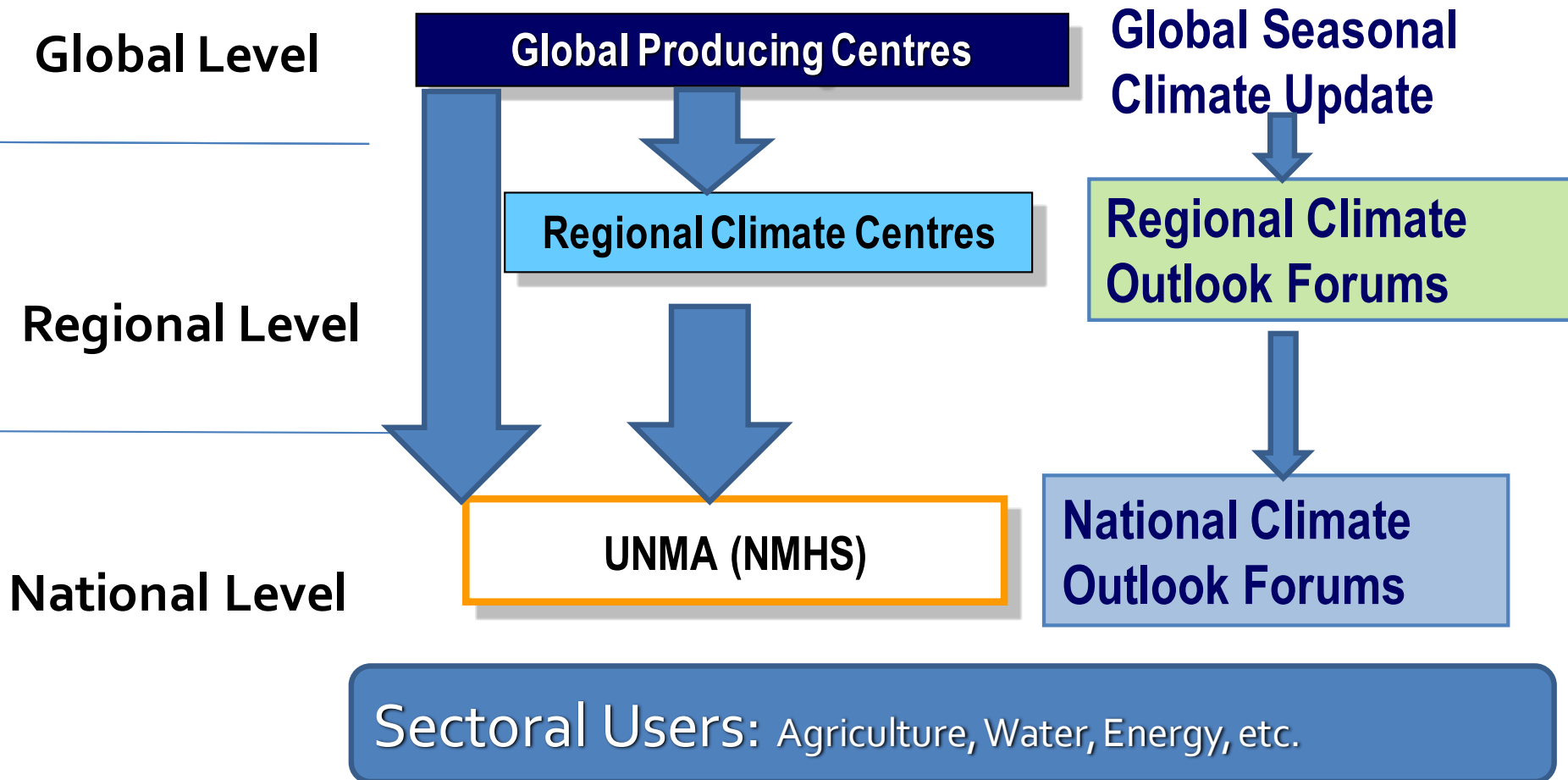
Fig2: Current major Weather stations

Meteorological radar Network

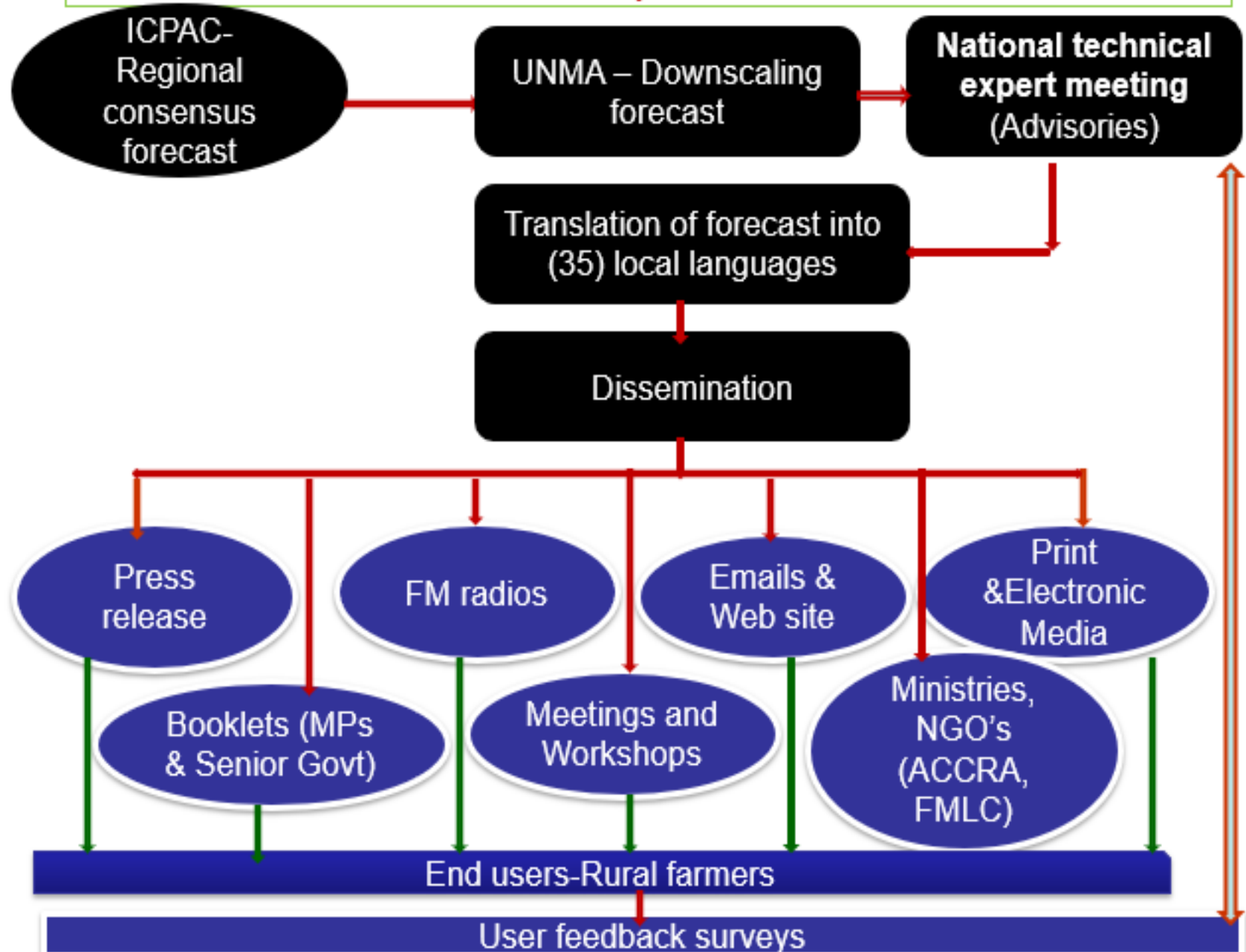
- Proposed radar sites
- Mbarara
- Lira,
- Gulu



Production of Climate Services Information (Seasonal Climate Forecast)



Seasonal Climate forecast (UNMA Dissemination Model)



Financing to improve functionality of Weather Stations

- ❖ Rehabilitation of Manual Weather instruments USD 1m
 - ❖ Acquisition & Installation of 200 AWS USD 1.3m
 - ❖ Rehabilitation of Weather Station Offices USD 1m
 - ❖ Construction of Regional Weather Offices USD 2m
 - ❖ Acquisition of computing facilities USD 2m
 - ❖ Establish Calibration Workshop USD 0.5m
 - ❖ Training of staff and Research USD 1m
 - ❖ Stabilize Telecommunication USD 0.2m
 - ❖ Transport (Wagons & field Vehicles) USD 1m
- USD 10m**

Financing to improve production of prediction and forecasts

| | |
|---|-----------------|
| ❖ Acquisition of specialised computing facilities | USD 1m |
| ❖ Establishment of Data & Climate labs | USD 1.2m |
| ❖ Capacity dev't of staff in climate modeling | USD 0.5m |
| ❖ Stabilize Telecommunication | USD 0.1m |
| Total | USD 2.8m |

OTHER GENERAL REQUIREMENTS

UNMA HOME **USD 30m**

Grand Total **USD 42m**

Conclusion

- Weather and climate information is important for all sectors of economy
- Timely and Reliable forecasts can enhance early warning and enable communities to easily cope up with extreme climatic events such as drought and floods

Thank you for your attention

A S A N T E N I S A N A

