



**NMA** ብሔራዊ ሚቴዎሮሎጂ ኤጀንሲ  
NATIONAL METEOROLOGY AGENCY



# Climate Information Services Sustainably

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## First hand impression on the Assessment of NMA

- In general, the assessment **is a good opportunity** to see our service, evaluated in such objective metrics.
- It **helps us to identify focus area** for further improvement of its services
- However, the **data used has to be verified**, as some may not be correctly filled on the questionnaire.
- We felt that the assessment **under estimated our services**, e.g., user interface and observation,
- Also need to **check some of the requirements**, like 100 upper air stations to meet category 2 observation and monitoring

# Current capacity of NMA

- Over 1300 **manned** conventional observational stations
- 300 **AWS**
- 3 **upper air stations**, 3 air **Quality Monitoring Stations**
- 14 **Satellite** receiving ground station
- 2 **HPCs**, 1 **TV studio** , 20Mbps **Internet access**
- 1 **Weather Radar**
- Clidata **database** system
- **GTS** system for international data exchange
- WRF **weather modelling**
- 980 staffs, about **300 graduates** of meteorology or related sciences, **45 MSc**
- 11 **Regional Meteorological Service Centres**, networked via **WAN and Video conference facilities**
- Contribution of donors project played key role to achieve those infrastructures, given the limited budget we get from the government

# Current NMA Core Services

- **Data and climatology** service
  - Online climate service (ENACTS)
- **Weather forecast and Early warning** service
  - 24hr, 3-day, 10-day, monthly, seasonal forecasts
  - Carry 3-National Seasonal Climate Outlook Forums per year
- **Agrometeorological** Services (10 daily, monthly, seasonal)
- **Hydro meteorological** Services (monthly, seasonal)
- Meteorological service for **health** (monthly)
- Meteorological service for **insurance**
- Meteorological service for **air navigation** (22 airports: 4 international, 18 domestic)
- Meteorological **research**
- Meteorological **education and training** (at NMA capacity)
  - One year Post Graduate Diploma on Meteorology
  - One year Meteorological Technicians course for beginners
  - One year Meteorological Technicians course for mid-level technicians

# Major challenges to our service

- High **turnover** of **skilled professionals** and unable to get skilled met-professionals in the local market
  - Limited higher institute on **meteorological science** such as climate modelling
- Unable to satisfy users in the provision of **location specific** and **accurate** climate services
- Low level of **understanding, interpretation and use** of climate information by users
- Low level of **institutional linkages** among key players of climate information generation, dissemination and use
- Unable to sufficiently **reach to the last mile users**, e.g., farmers
- Unable to **sustainably run** modern technologies

Some of action taken to address the challenges

- **Decentralized** our services to reach the end users
  - 11 Regional Meteorological Service Centres with a staff size of 50 to 90 each
- **Engage with end users** to enhance the use of our services ( signing MOUs, joint experiments, trainings, seminars, climate guides, joint task forces /DRM/flood/, etc)
- **Collaborate with local universities** to build our capacities in both meteorology and application
- **Explore existing government structure to reach last mile**, for e.g., agriculture extension officers are instrumental to deliver agro-met advisories

# What is need to enhance and sustain climate service

- More human capacity in key area
  - Weather and climate modelling
  - Specialisation for applied climate services (Agromet, Hydromet, disaster risk management, health, air navigation, insurance, construction, energy generation, etc
  - ICT, GIS and remote sensing
  - More phd's for research (more research on local climate is needed)
- Full scale implementation of the National Framework on Climate Services to bridge the gap with end-users
- Expand, sustain and optimal use of technologies, which is also depends on staff skill

Thanks you for listening