

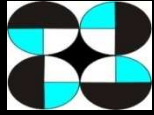
“Climate Risk Reduction and Climate Change Adaptation in the Philippines”



EDNA L. JUANILLO

PAGASA-DOST

29 September 2012



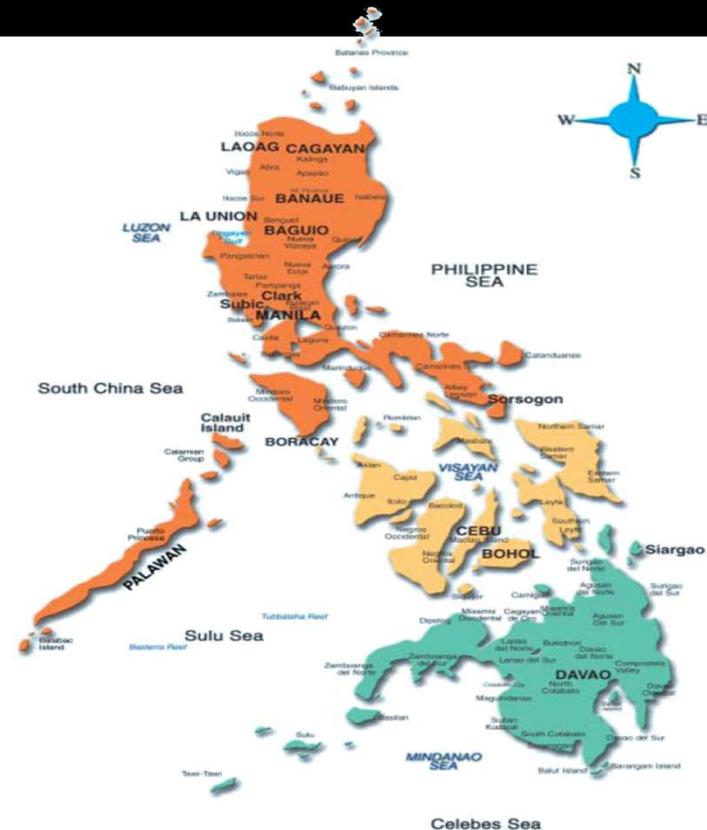
OUTLINE

- ❑ Introduction
- ❑ Impacts of Climate Change and Philippines' vulnerability
- ❑ DOST-PAGASA S&T Adaptation Initiatives

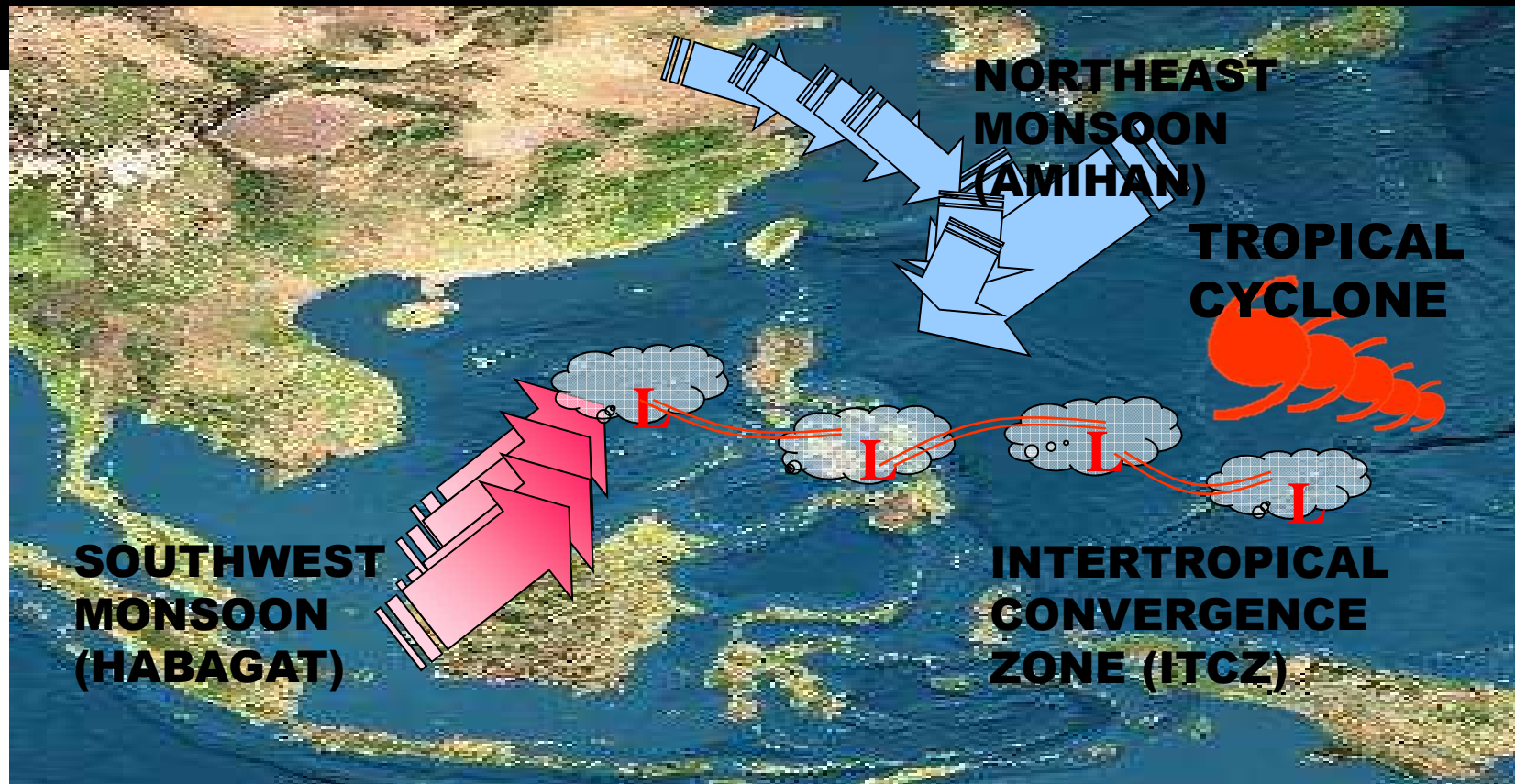


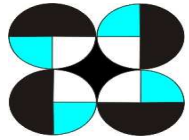
Philippine geography & topography

- Archipelago, composed of 7,100 islands with low lying areas
- Due to its geographical setting, it is considered as one of the countries of the world most prone to extreme climatic events.
- Among longest coastlines in the world with 32,400 kms (susceptible to storm surges)
- Highly susceptible to sea level rise



Weather Causing Phenomena in the Philippines





Philippine
Atmospheric
Geophysical
Astronomical
Services
Aministration



The nation's meteorological
service and public weather
service provider



Satellite Antenna at Weather and Flood Forecasting Center





NETWORK OF OBSERVATIONS

54 Synoptic Stations



23 Agromet Stations

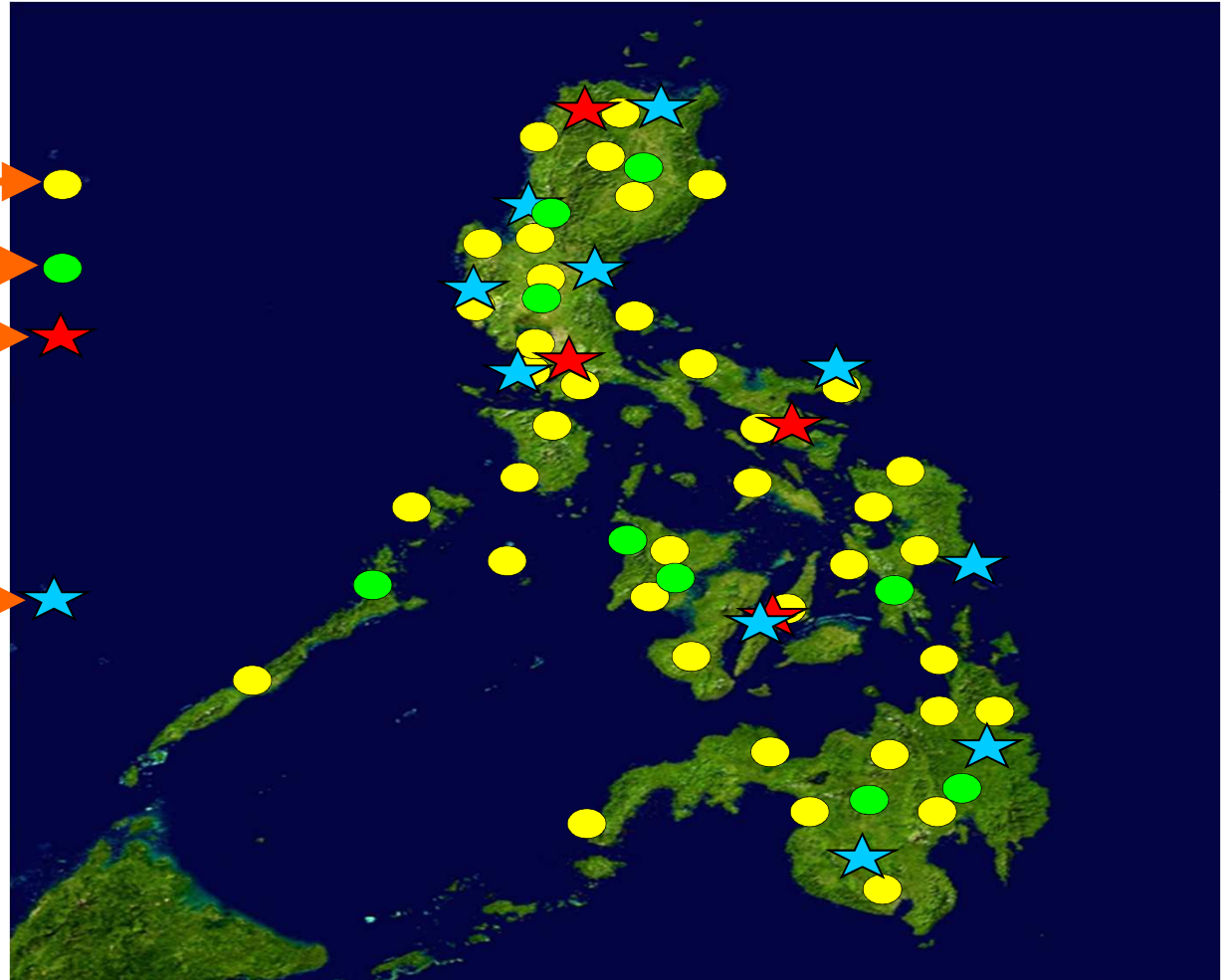


5 Radiosonde Stns.



**5 Meteorological
Satellite Receiving
Facilities**

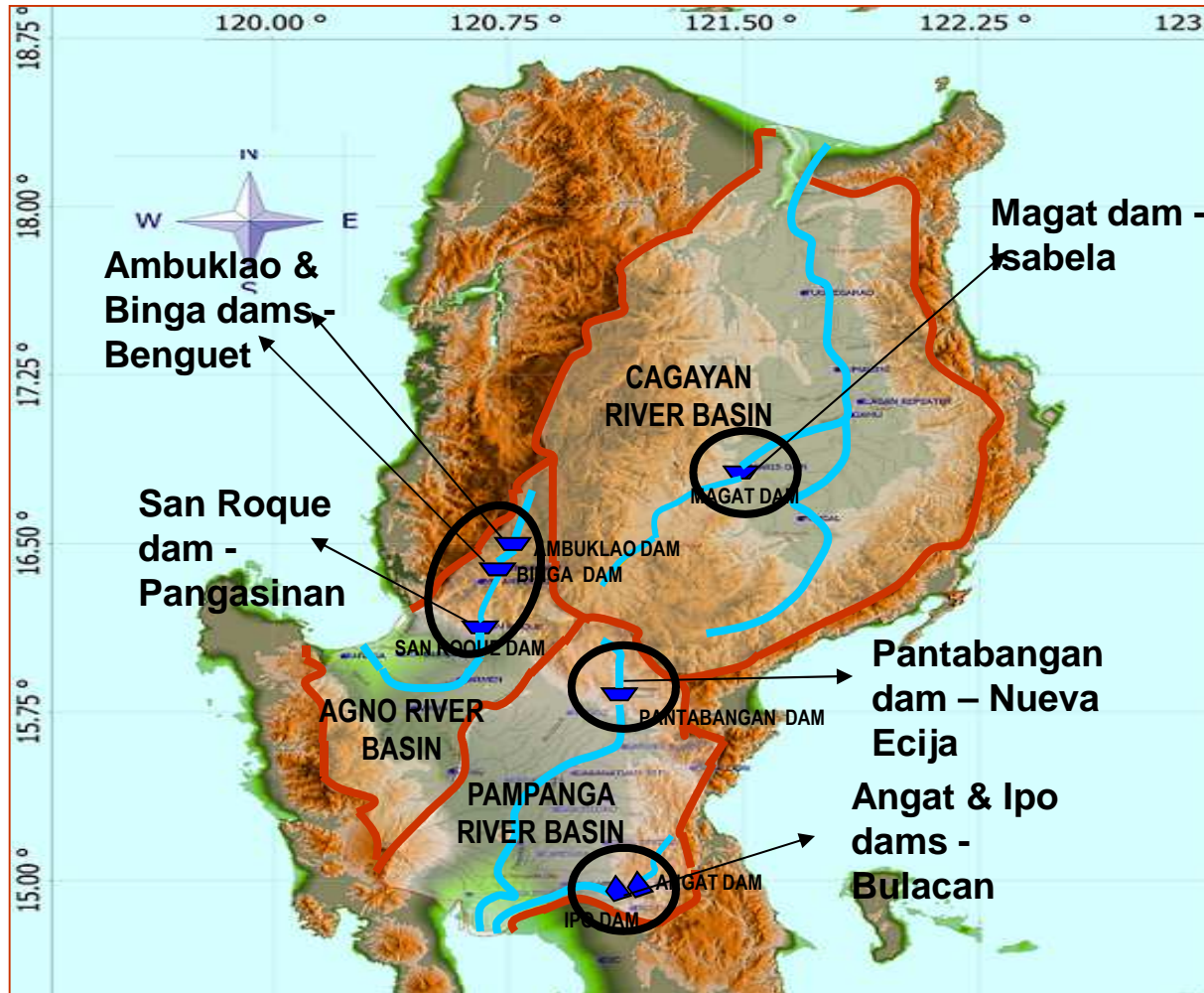
**10 Doppler radars
(2 years from now)**



Upgrading of Flood Forecasting and Warning System

- Modernization of Pampanga and Agno River Basin Flood Forecasting and Warning System
- Establishment of Community-Based Flood Monitoring and Early Warning System





Location of monitored dams in Luzon



Strategy - River Basin Approach



“tracking the sky...helping the country”



Community-based Flood Early Warning



Initiatives/Programs by PAGASA during ECEs

- **Early warning system:**

 - Flood Bulletins - telemetered river basins

 - Flood Advisories - non-telemetered river basins

 - Flood Situationer - Metro Manila

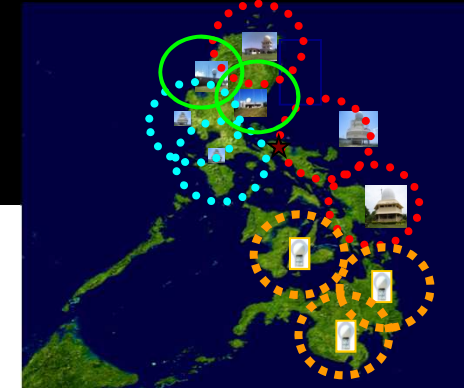
 - Seasonal Weather Outlooks and El Nino and La Nina Updates

- Public Information Drive / Seminars/Workshops on meteorological and hydrological phenomena i.e. floods and drought.



Establishment of state-of-the art Doppler Weather Radar Network

- Virac (JICA)
- Aparri (JICA)
- Guian (JICA)
- Tagaytay (OP)
- SBMA (OP)
- Cebu (OP)
- Hinatuan
- Tampakan
- Baguio upgrading (DOST)
- Baler upgrading (DOST)



NETWORK

DOPPLER RADARS (JICA)



Aparri Meteorological Radar Tower Building



Guiuan Meteorological Radar Tower Building



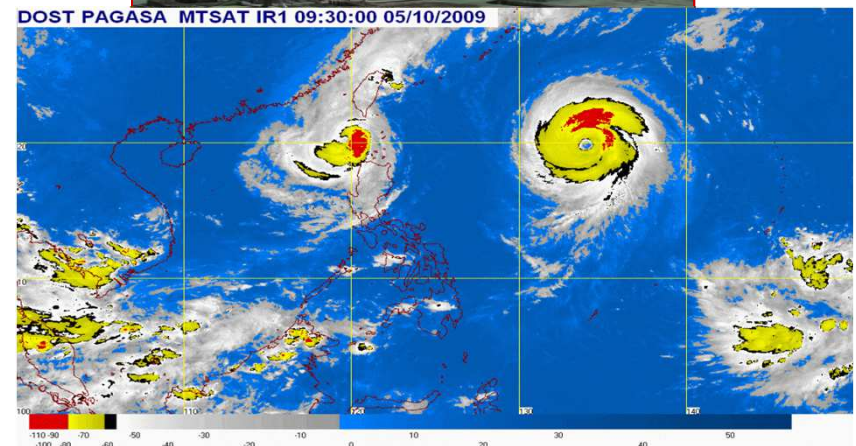
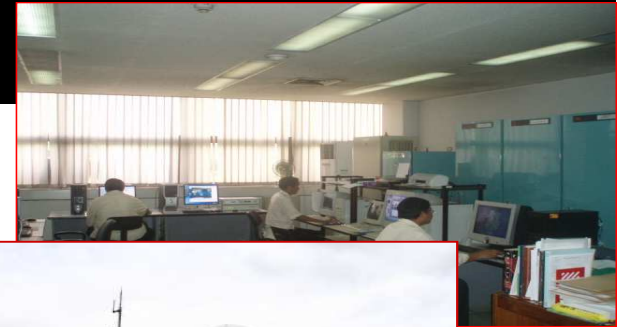
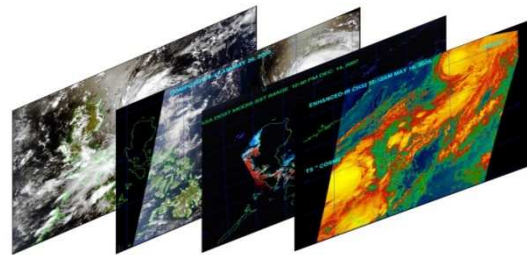
Virac Meteorological Radar Tower Building



Advanced Science (Space Technology Applications)

Upgrading and Establishment of Ground Meteorological Satellite Facilities

- MTSAT Receiving Station (Q.C. and Cebu)
- NOAA Satellite Ground Receiver
- MODIS
- FY2 Chinese Satellite

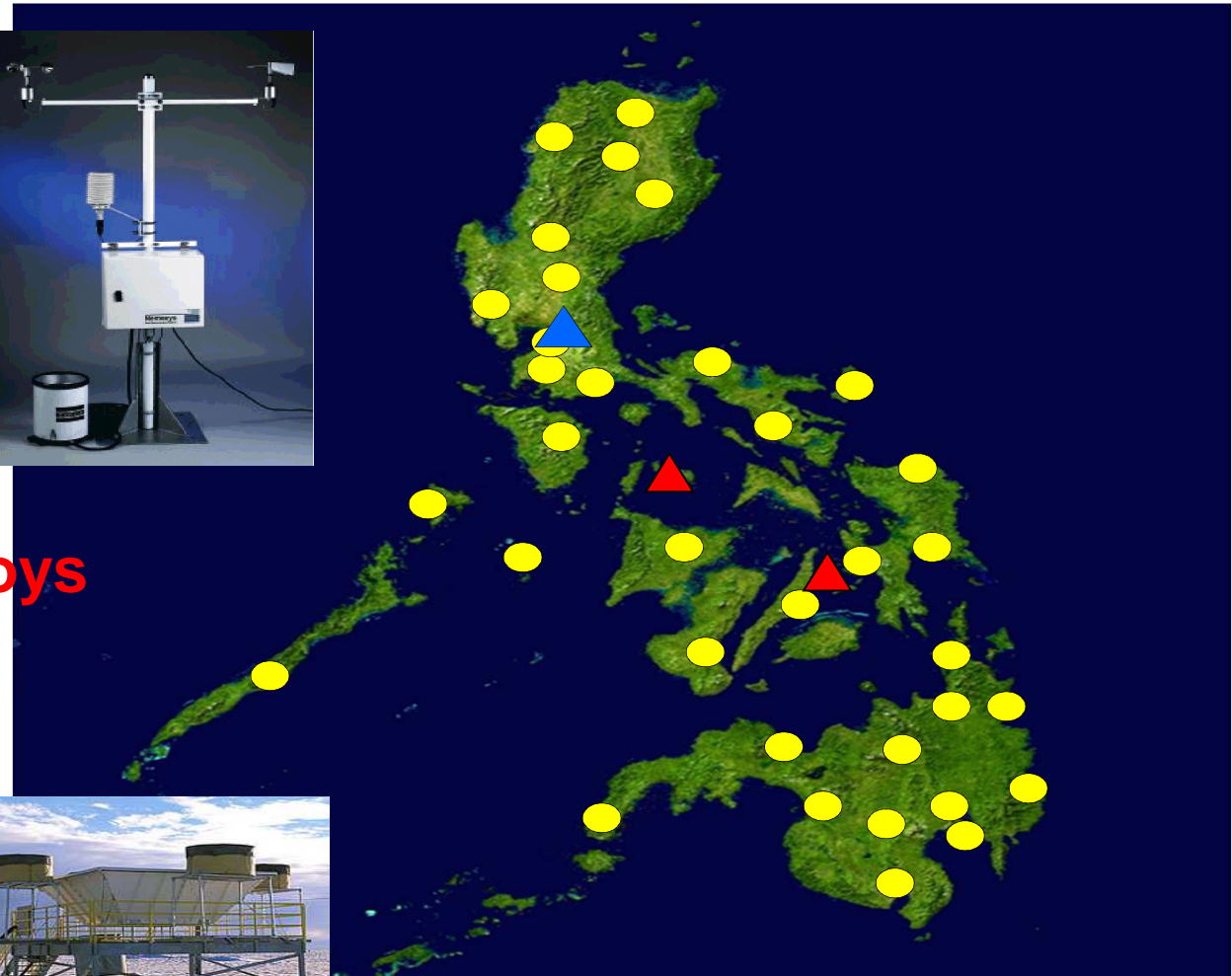


● **Automatic weather stations**



▲ **Meteorological Buoys**

▲ **Wind Profilers**



Upper-air Station Network

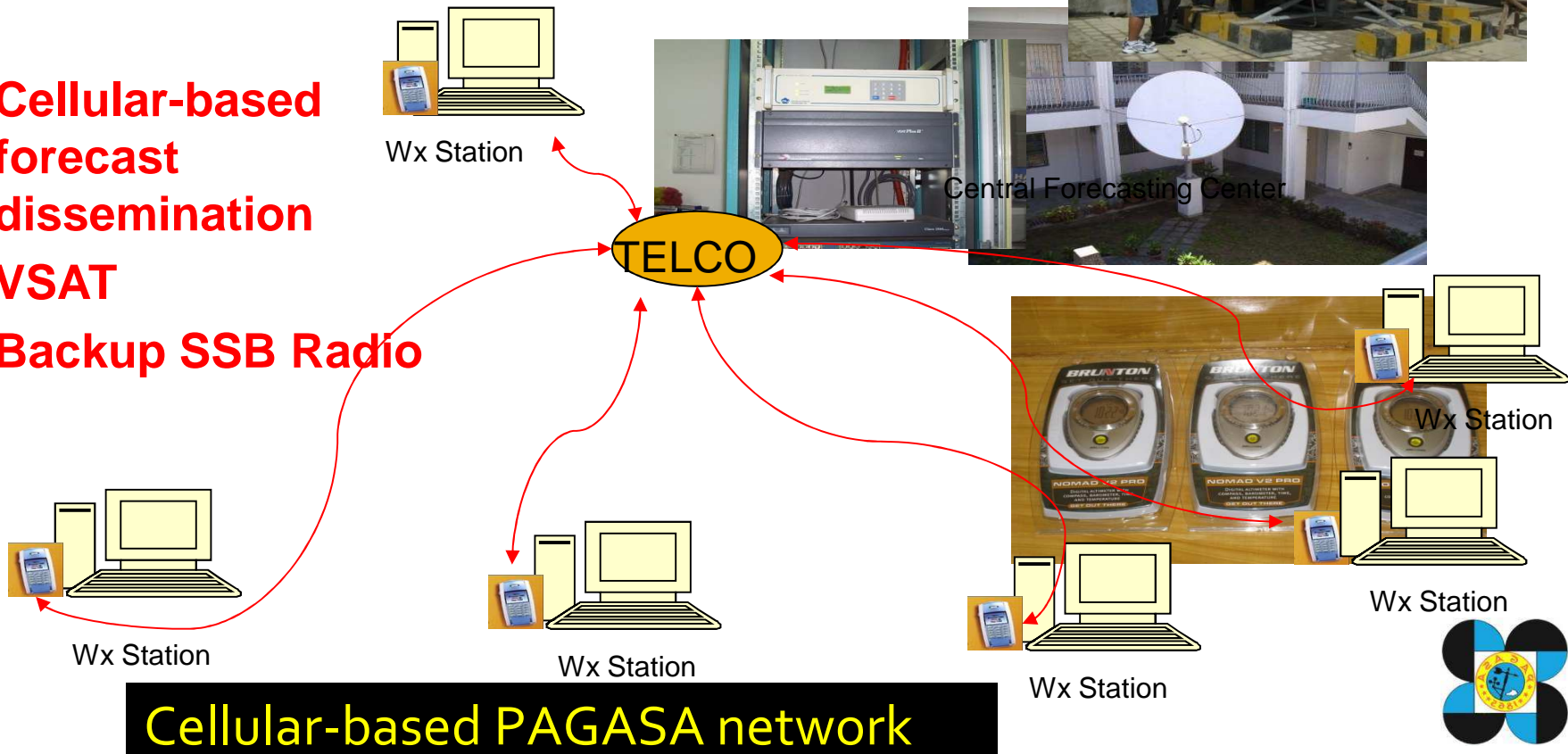


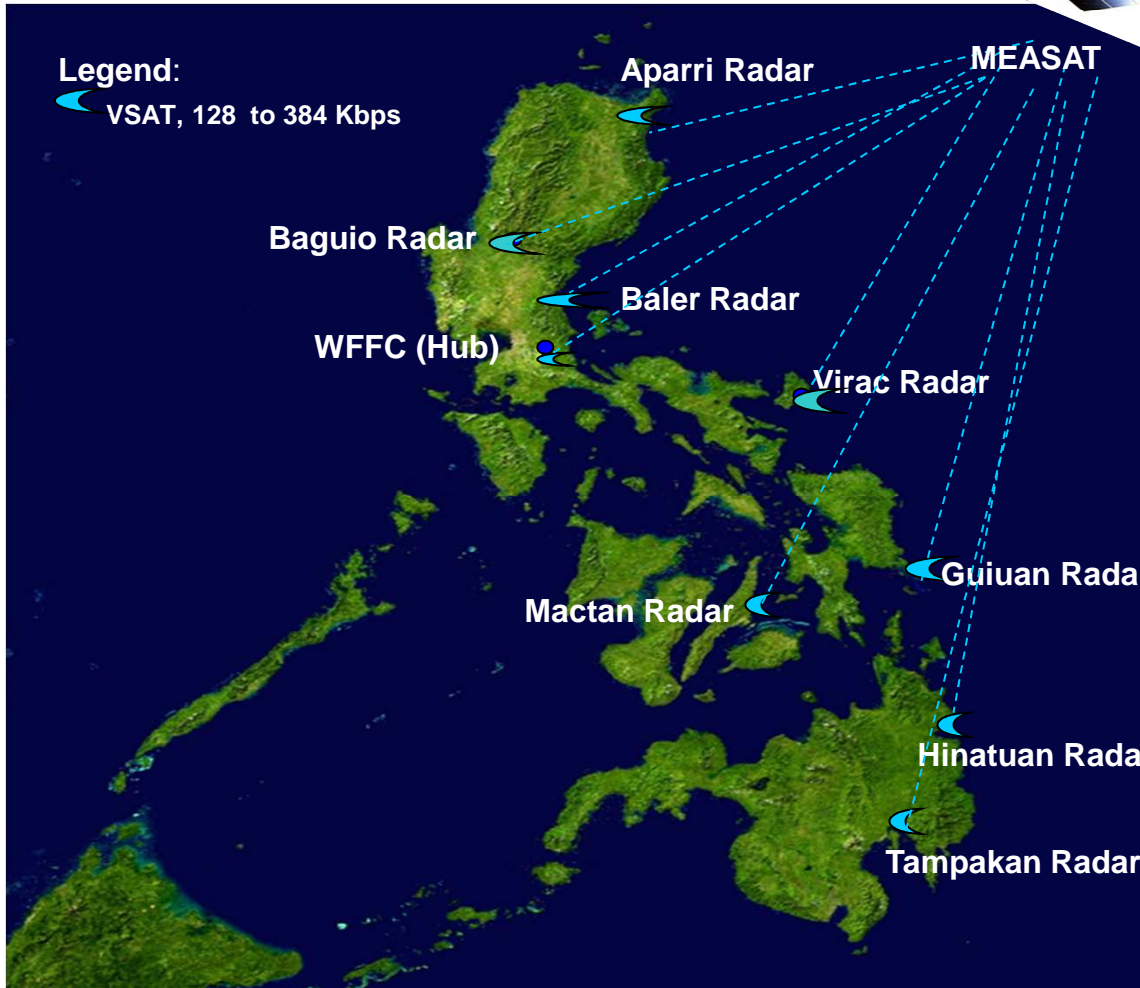
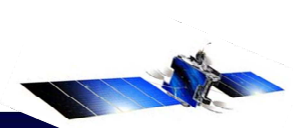
- Laoag
- Tanay
- Legaspi
- Cebu
- Davao



Upgrading of Meteorological Communications System

- Cellular-based forecast dissemination
- VSAT
- Backup SSB Radio



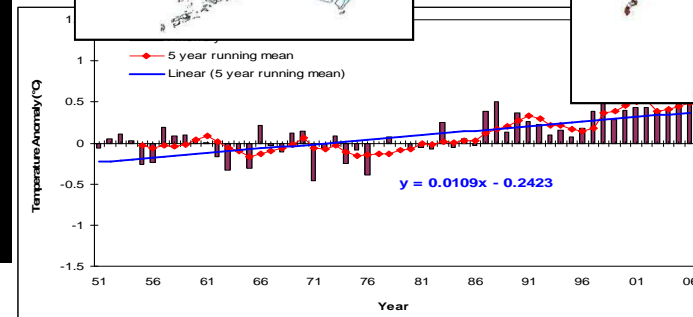
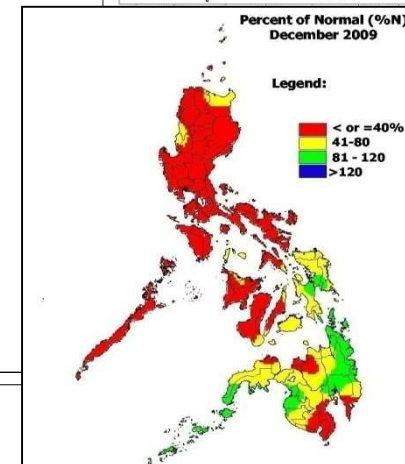
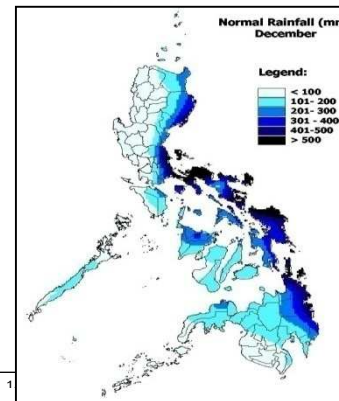
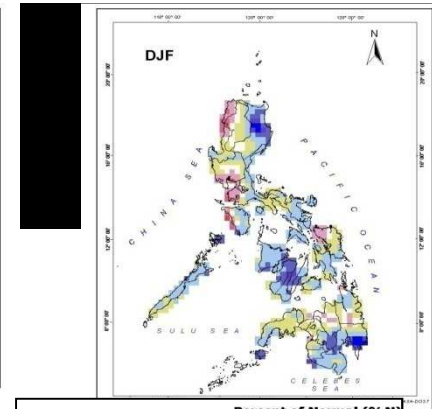
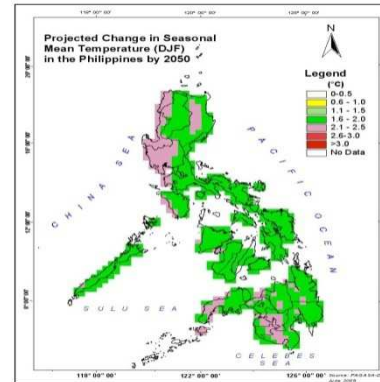


VSAT Communication system



Research & Development

- Local Climate Change trends analyses and modeling scenarios
- Bridging the gap between climate information users and providers
- GIS mapping of seasonal and monthly rainfall for ENSO monitoring



Climate Change: S&T-based Interventions:

Advanced Science Through Space Technology Application and ICT

- Enhancement of weather and climate forecasting by expanding the use of meteorological satellite applications**
- Use of Space Technology application and ICT for managing Natural Disaster Mitigation, relief and prevention efforts**

Way forward

- **Linking Global Programs with domestic Initiatives**
 - **Downscaling/Modeling projection scenarios**
 - **Technology Transfer issue**
 - **Capacity Building under the UNFCCC**
(Build local capacity)
- **Provision/Accessing of available Funding support**
 - **Over and above ODA**
- **Strengthen Regional cooperation esp. on Climate Change Negotiation, sharing of best practices and relevant information (AWCI/GEOSS)**



Challenges ...

- **Poor Public awareness**
- **Gaps in climate change data and relevant information**
- **Regional differences and priorities**
- **Lack of enabling environment/policies for addressing climate change related to advance science**
- **Balance between Mitigation & Adaptation**





“tracking the sky . . . helping the country”

Thank you

