

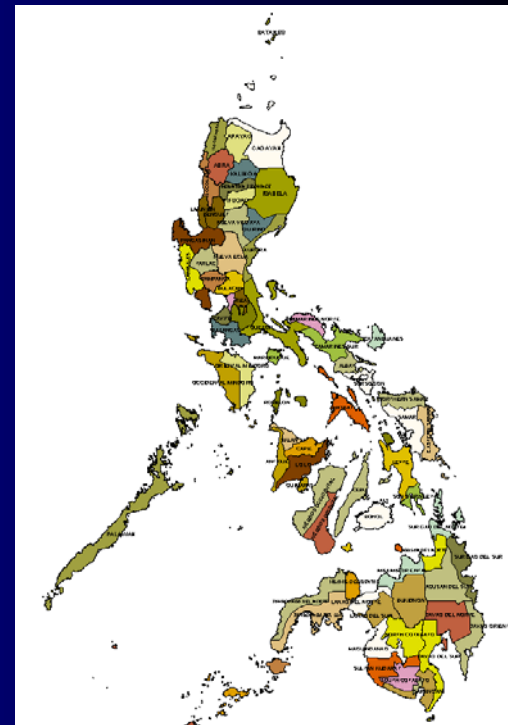
*Joint Integrated Global Water Cycle Observing (IGWCO)/
Coordinated Enhanced Observing Period (CEOP) Workshop*

28 Feb. – 4 March 2005, Tokyo, Japan

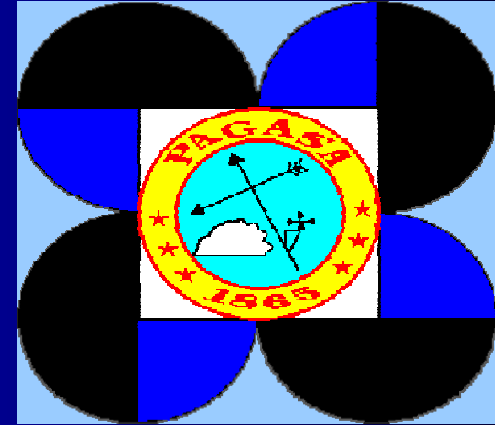
Satellite Data Utilization and Meteorological Hazard Prevention In the Philippines



Flaviana D. Hilario
Climatology and Agrometeorology Branch
PAGASA/DOST



Philippine Atmospheric Geophysical Astronomical Services Administration



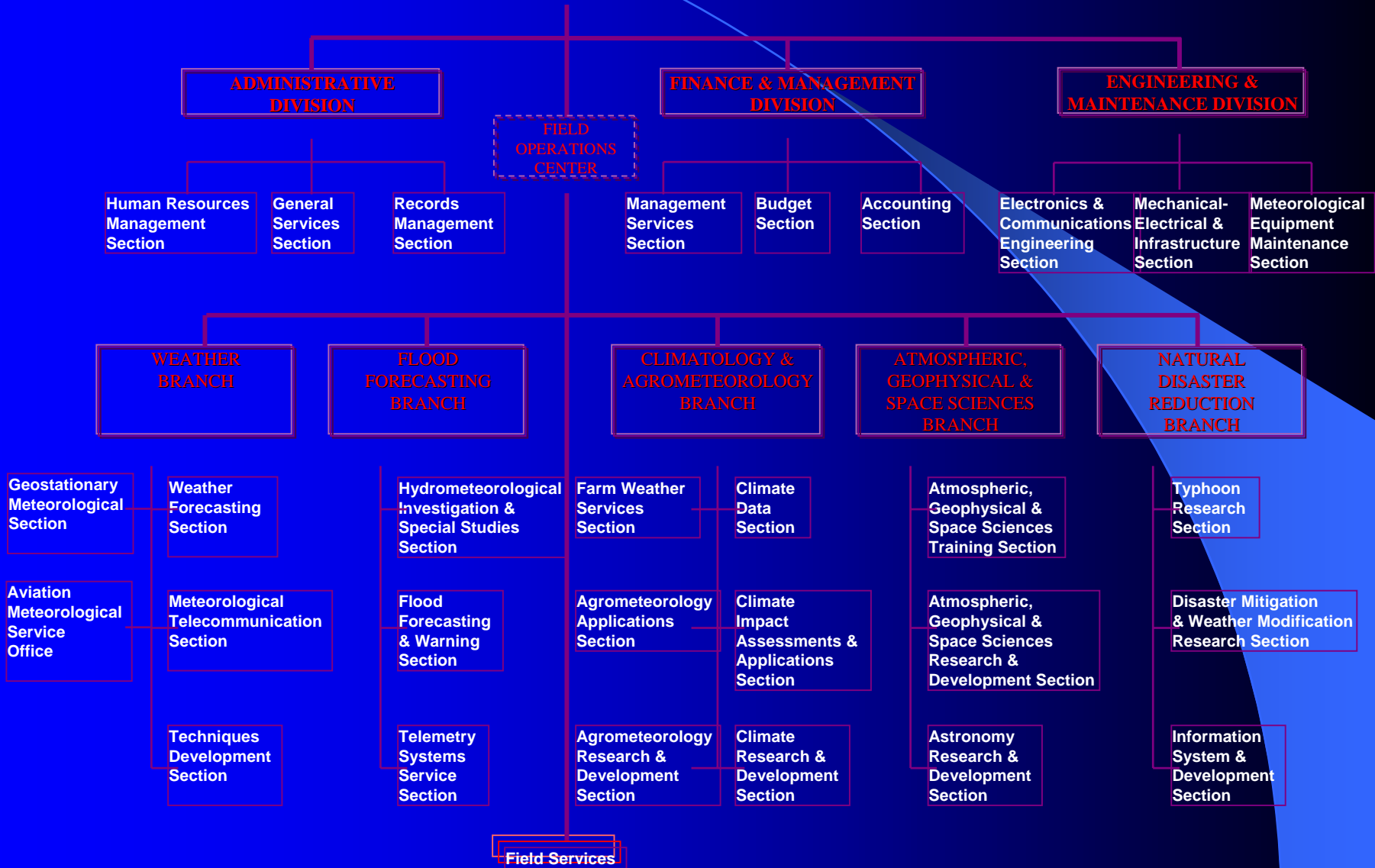
**The nation's
meteorological service
and public weather
service provider**

The Philippines, through the PAGASA, is a Member of the World Meteorological Organization (WMO), a specialized body of the United Nations



PAGASA ORGANIZATIONAL CHART

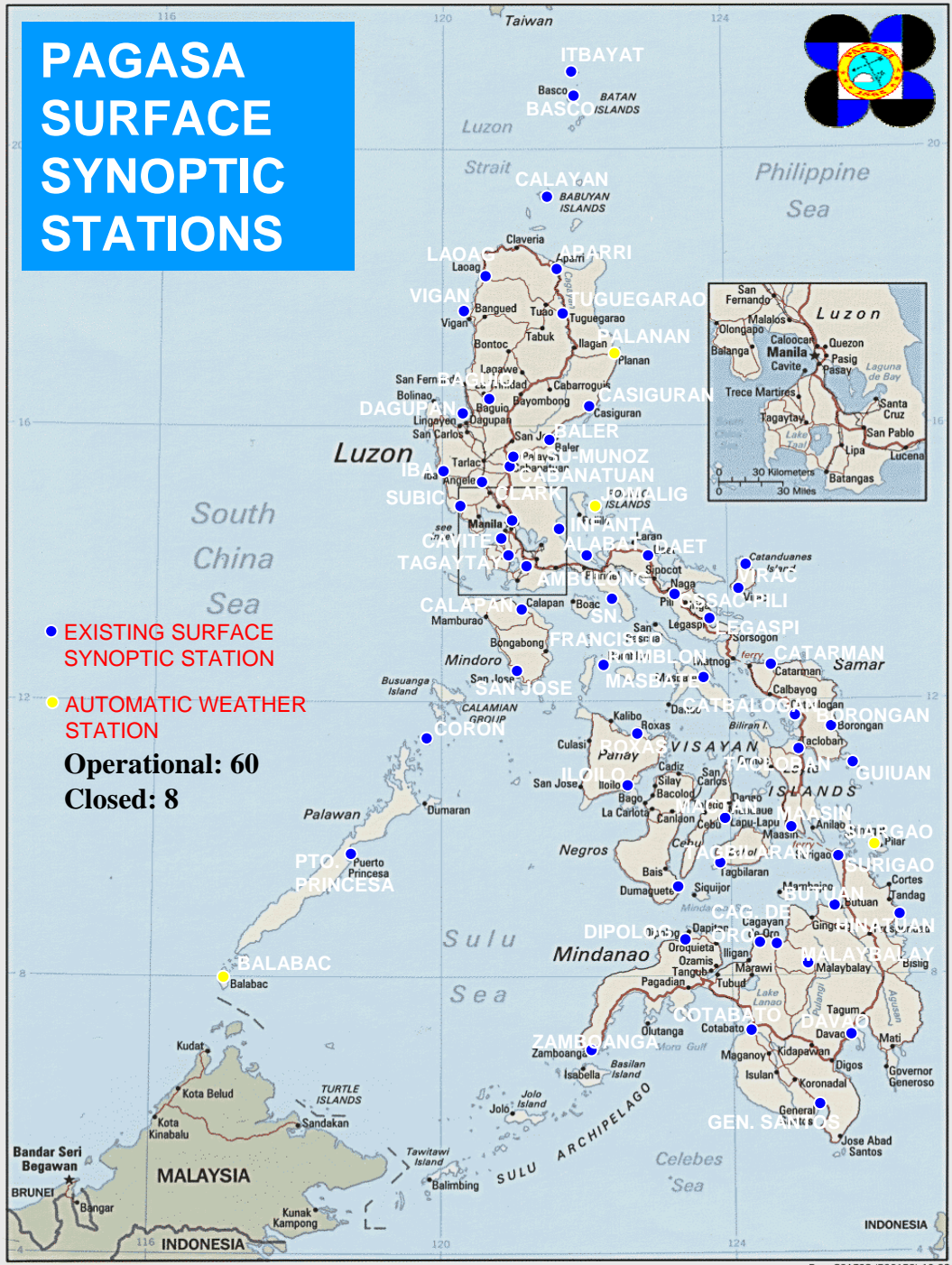
OFFICE OF THE DIRECTOR



Sources of Data

- *Synoptic, Agromet, Telemetering and Rain Stations*
- *Geostationary Meteorological Satellites*
- *Land-based Weather Radar*

PAGASA SURFACE SYNOPTIC STATIONS



- EXISTING SURFACE SYNOPTIC STATION
 - AUTOMATIC WEATHER STATION
- Operational: 60**
Closed: 8

PAGASA AGRO-MET STATIONS



Operational: 21

PAGASA WEATHER RADAR STATIONS



● EXISTING

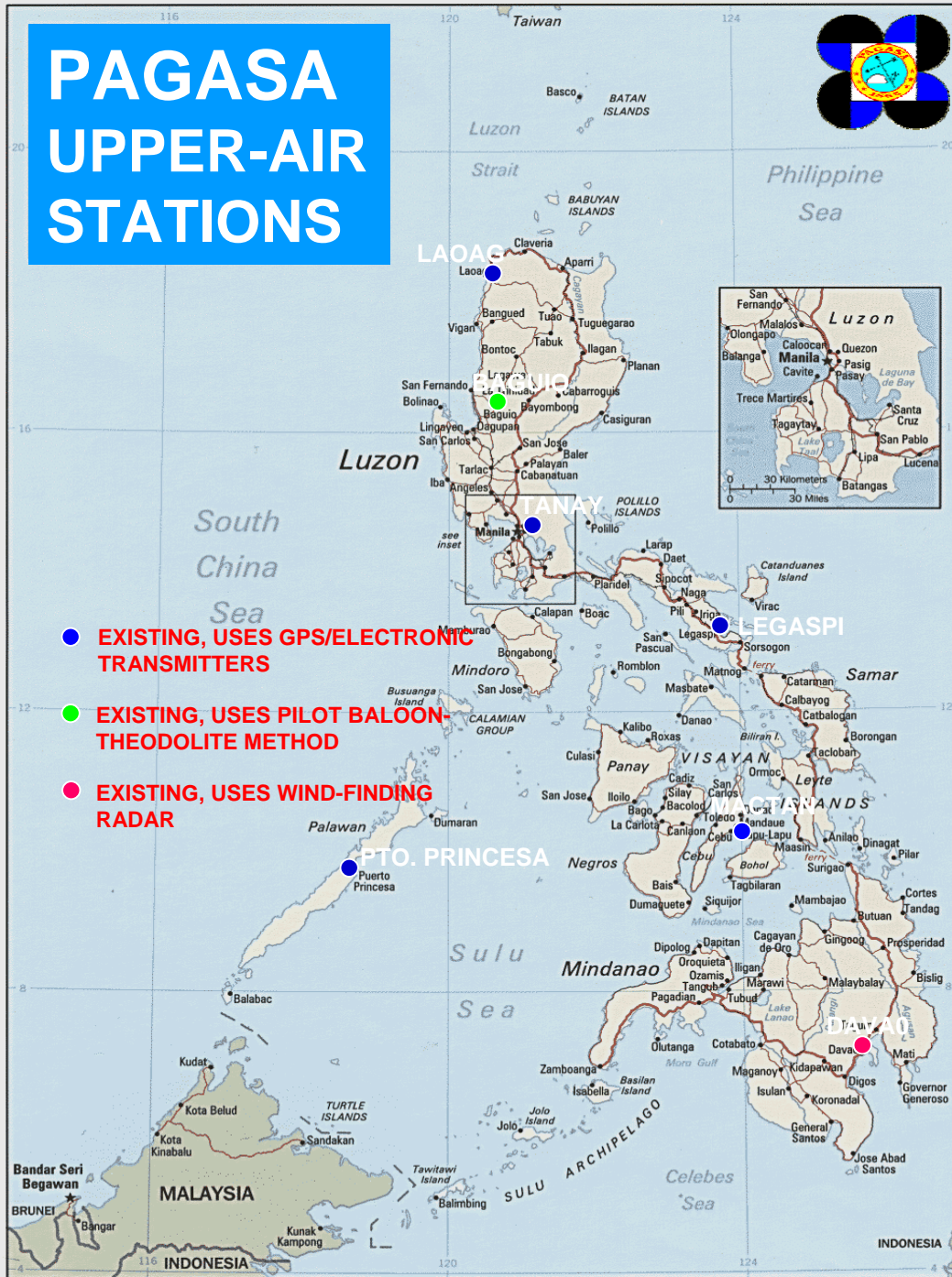
● PROPOSED RADAR STATION

Operational: 4

PAGASA UPPER-AIR STATIONS



- EXISTING, USES GPS/ELECTRONIC TRANSMITTERS
- EXISTING, USES PILOT BALLOON-THEODOLITE METHOD
- EXISTING, USES WIND-FINDING RADAR



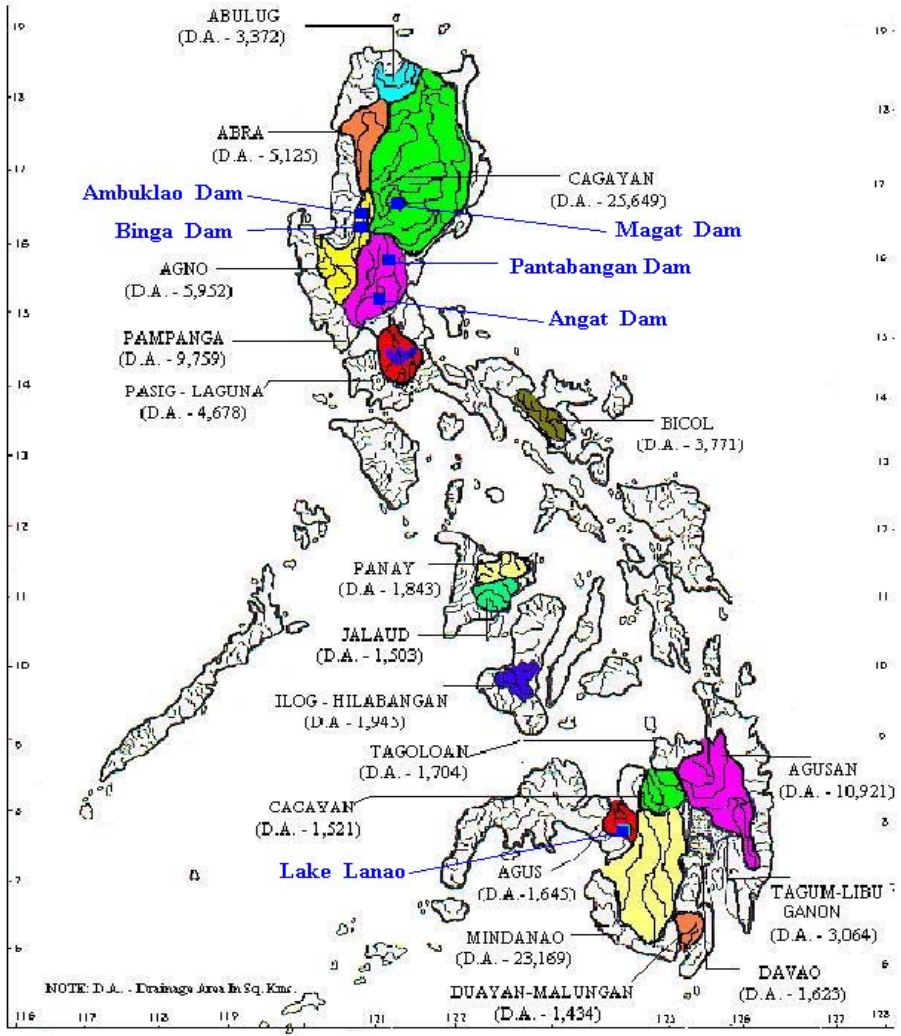
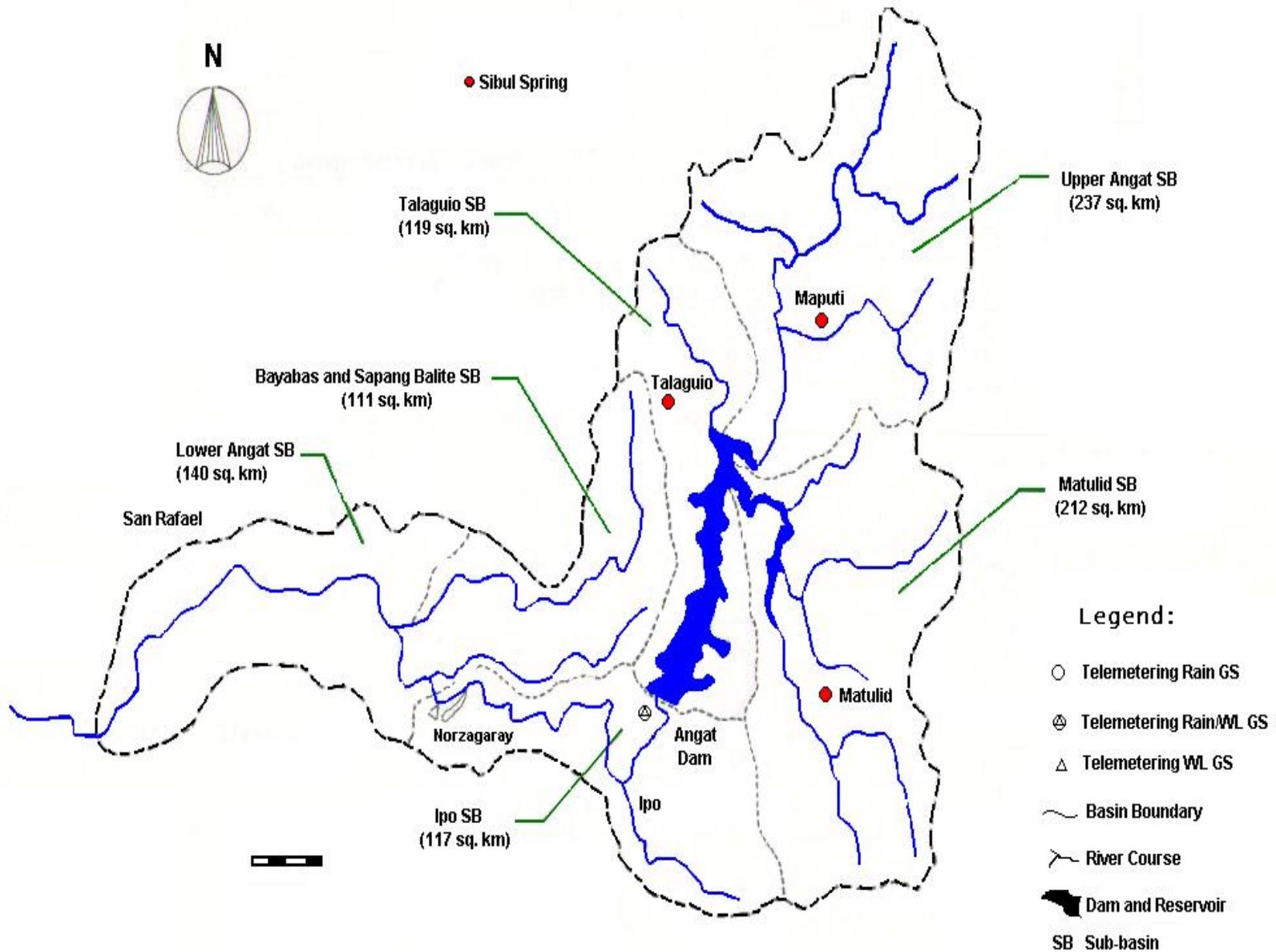


Fig. 1 Location of Major Reservoirs in the Philippines



Angat River Basin

Fig. UPPER PAMAPANGA RIVER BASIN

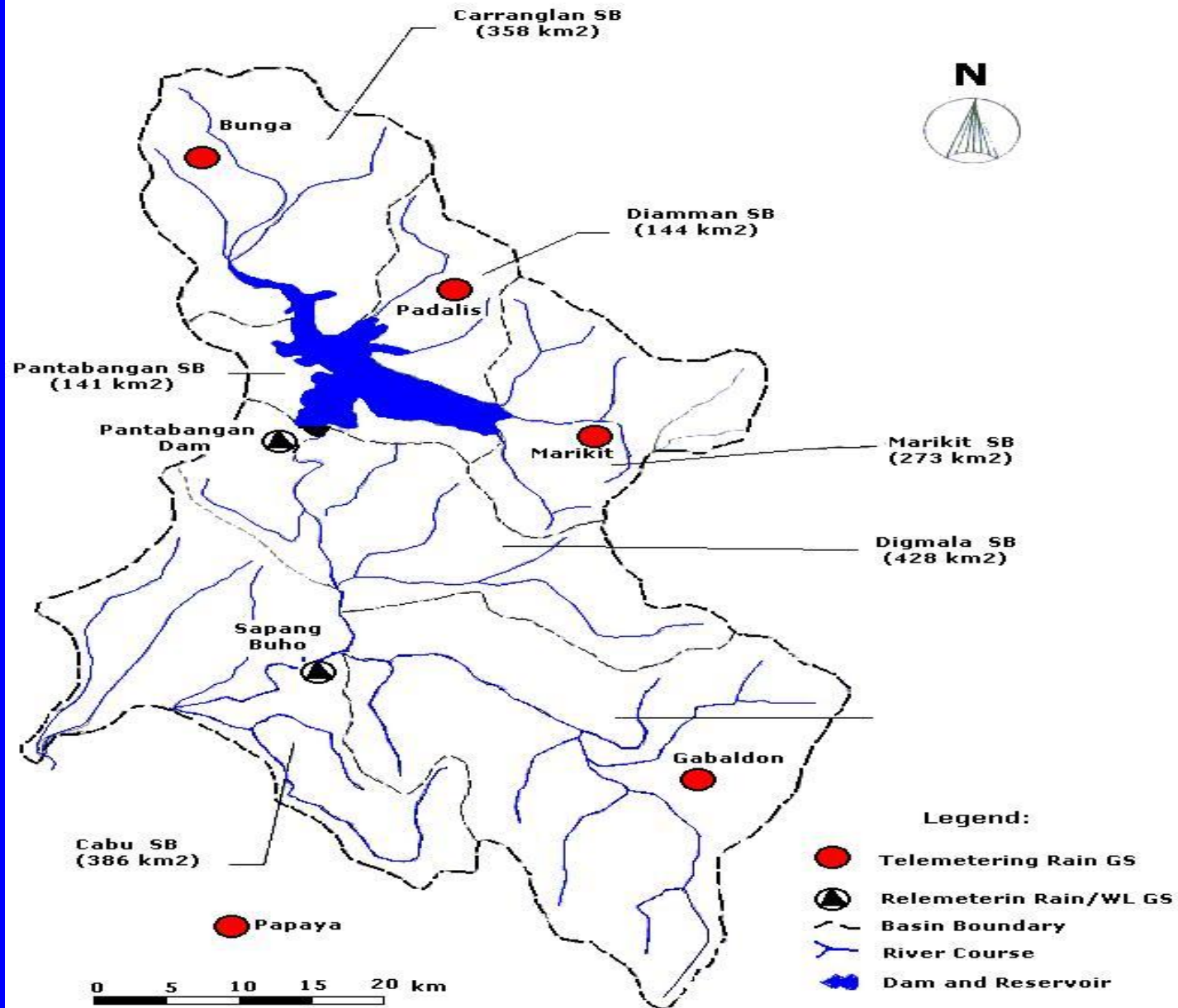
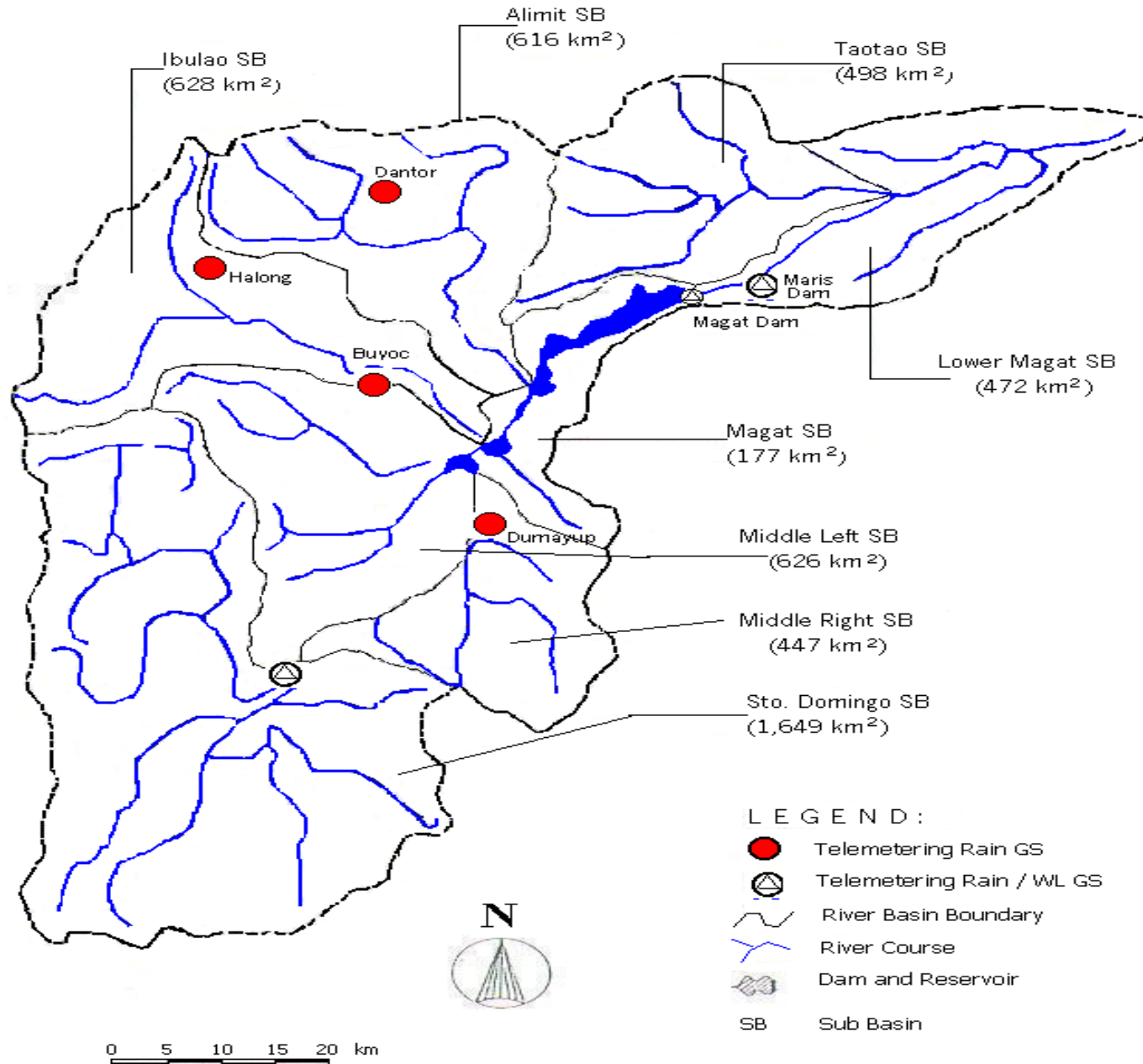


Fig. 2.6 MAGAT RIVER BASIN



The products issued by PAGASA to various clients or users are the following:

- **Daily weather forecasts and advisories**
- **Daily farm weather forecasts and advisories**
- **Typhoon and flood warnings**
- **Monthly Weather Situation and Outlook**
- **Seasonal Climate Outlook**
- **Drought/La Niña Advisories**

The clients include the general public, tri-media (radio, television and print), water, agriculture, health and tourism sectors.

SATELLITE DATA UTILIZATION

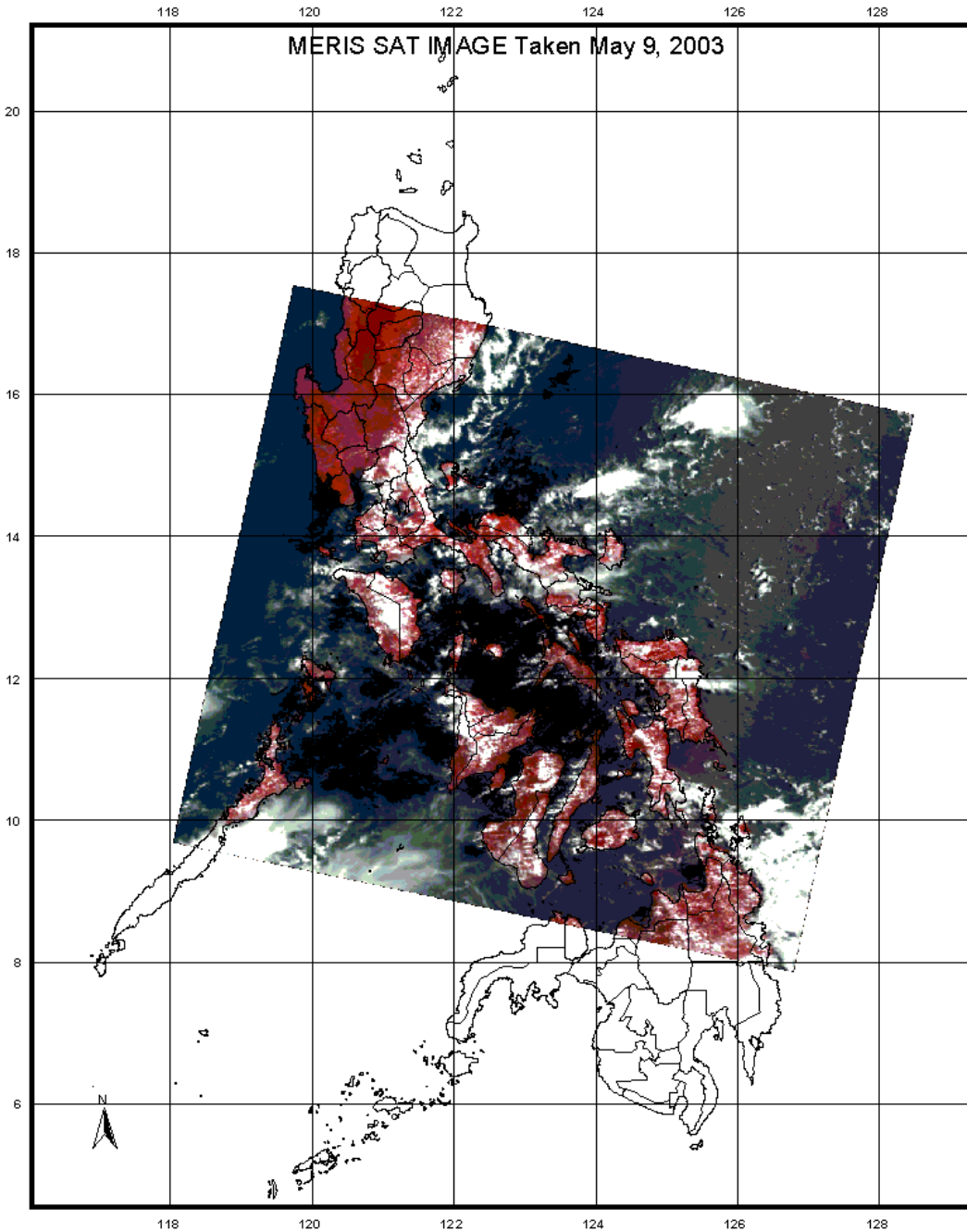
- *WEATHER FORECASTING AND MONITORING*
- *TROPICAL CYCLONE MONITORING*
- *RAINFALL ESTIMATION*
- *VOLCANIC ERUPTION*
- *FLOOD MONITORING*
- *VEGETATION AND SOIL MOISTURE MAPPING*

*Flood
Monitoring
Using
ERS-1 Data*



Fig.4 Intensity-Hue-Saturation transformation composite image centered at Naga City

MERIS SAT IMAGE Taken May 9, 2003



**Vegetation and
Soil Moisture
Mapping Using
MERIS and
ASAR Data
from ENVISAT™**

ASAR Image of Iloilo



**Vegetation and
Soil Moisture
Mapping Using
MERIS and
ASAR Data
from ENVISAT™**

INTEGRATION SPACE TECHNOLOGY WITH DISASTER MANAGEMENT

- Improve rainfall estimation techniques**
- Lower the cost of remotely sensed data**
- Real-time access to remotely sensed data**

CONCLUDING REMARKS

- **The use of space systems, meteorological satellites in particular, has been found to be indispensable for cyclone monitoring and warning in the Philippines.**
- **The use remotely sensed data to monitoring of floods and other related disasters would improve warnings and would help in disaster mitigation and preparedness program of the government.**

For more information, VISIT us at

<http://www.philonline.com/~cab>

<http://www.pagasa.dost.gov.ph>



Thank you

