Economy Report

Philippines

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Outline

- Grid Computing Status
  - Activities in the country
  - Activities in the organization
  - Popular applications for grid computing
- Your needs for utilizing grid computing
  - In application areas
  - In Human Resource Development for grid computing researchers and engineers
- How you utilize grid computing as a business in the country

Philippine Export

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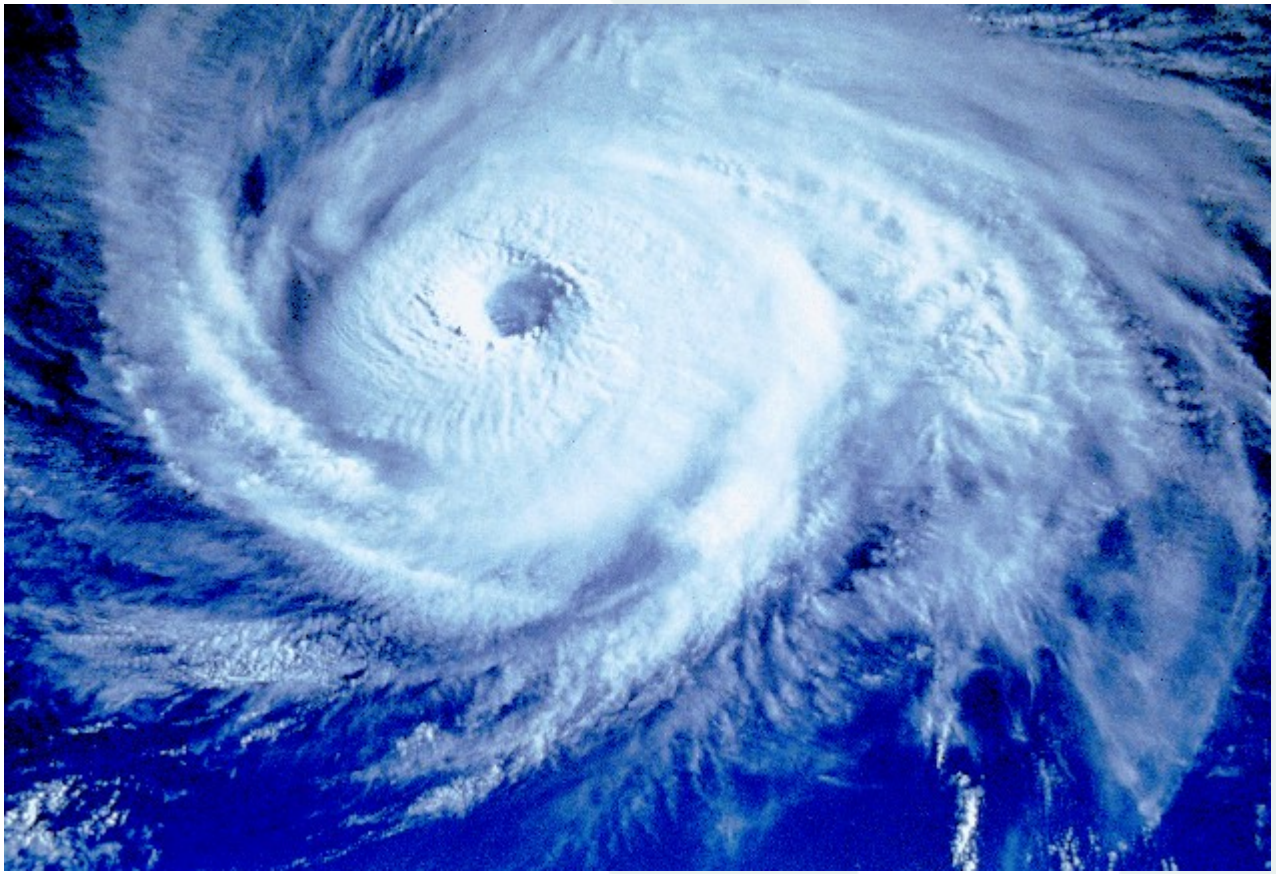

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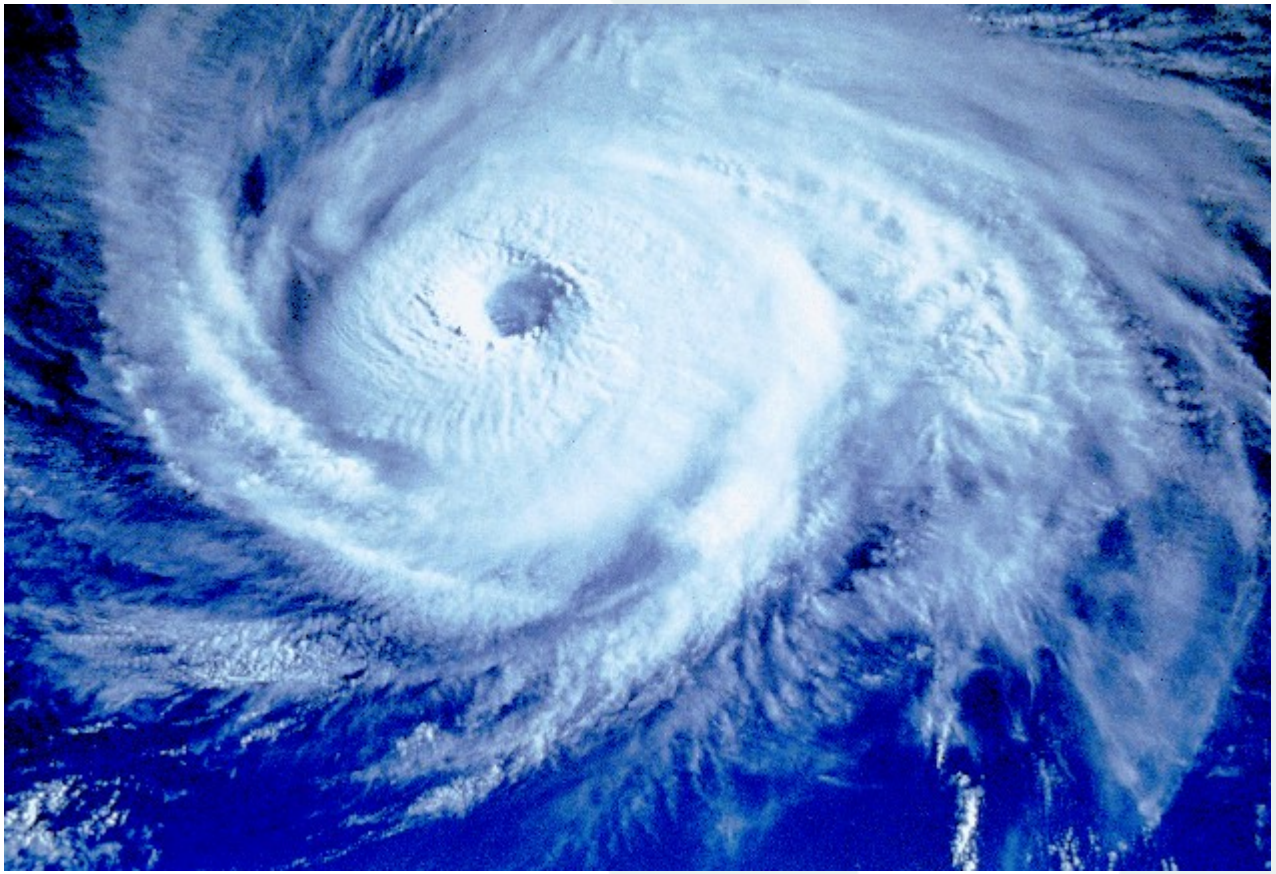

Bagyong Milenyo (Typhoon Xangsane) September 2006

Philippines: 197 lives, 118 million USD
Vietnam: 71 lives, 629 million USD
Thailand: 14 lives, 8.1 million USD
Myanmar: 16 lives

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- Timely response to a disaster begins with a map

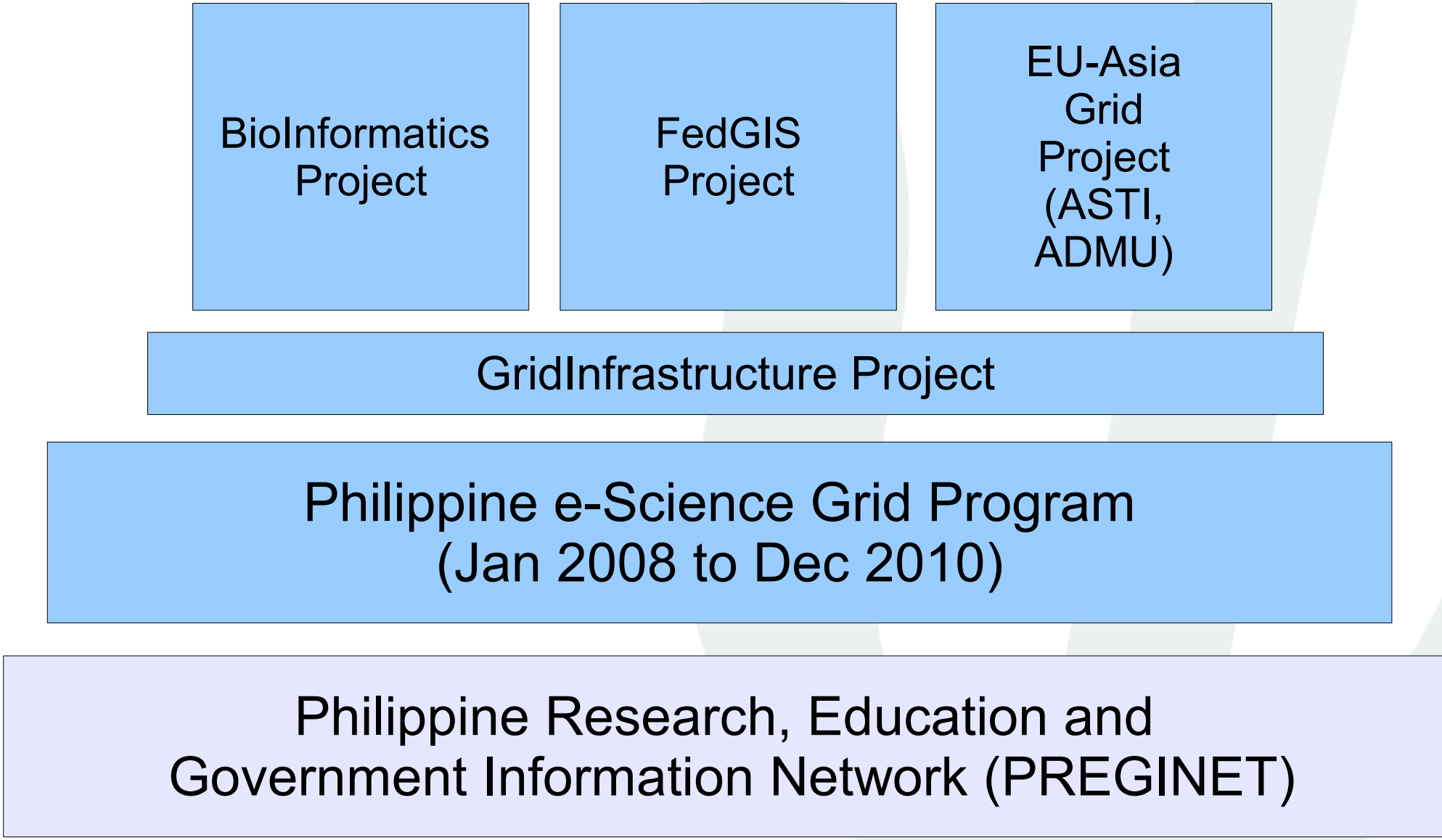
FedGIS

- Collaborative mapping project for hazard assessment
- Initial data, standards and policies from the READY Project
  - Office of Civil Defense-National Disaster Coordinating Council (OCD-NDCC)
  - Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - Philippine Institute of Volocanology and Seismology (PHIVOLCS)
  - Mines and Geoscience Bureau (MGB)
  - National Mapping and Resource Information Authority (NAMRIA)
  - Advanced Science and Technology Institute (ASTI)

GEO Grid

- CICC-GEO Grid Visit in Manila, October 2007
  - Agencies visited were interested in using the ASTER data, as well as sharing data where applications can be tested on their data
  - Among the data that might be available to the GEO Grid project will be the hazard maps from the READY project

Grid Activities of ASTI



Grid Infra Project

- Participants
  - Advanced Science and Technology Institute
  - Ateneo de Manila University
  - Philippine Atmospheric, Geophysical and Astronomical Services Administration
  - Philippine Institute of Volcanology and Seismology
  - University of the Philippines

  - Diliman Core Group (testbed for national deployment)
  - Runs on top of the PREGINET Infrastructure

Other Grid Activities in the Philippines

- PAGASA Interactive Climate and Weather Information Network (PICWIN) under the Philippine Atmospheric, Geospatial and Astronomical Services Administration (PAGASA)

- Ontology and Context Medical image Distributed Intelligent Access (ONCO-MEDIA) by Ateneo de Manila University (ADMU)

Grid Activities in the Philippines

- Bayanihan Computing Group of the Ateneo de Manila University
- GridWulf Experimental System by Mindanao State University – Iligan Institute of Technology
- Other universities have individual grid computing efforts (need coordination among each other)

Popular applications

- Animation rendering
- Weather modeling
  - High Resolution Model (HRM)
  - MM5
- Computational biology and chemistry
  - UP Los Baños, IRRI, PhilRice

Grid Computing Needs

- Availability of applications
  - users know only a few grid applications that can run natively on the grid
  - many of the applications need to be (re)written
- Researchers need to be trained to use grid applications as well as write grid applications
- Grid engineers develop methods that ease the use and deployment of grid applications

Grids as a Business

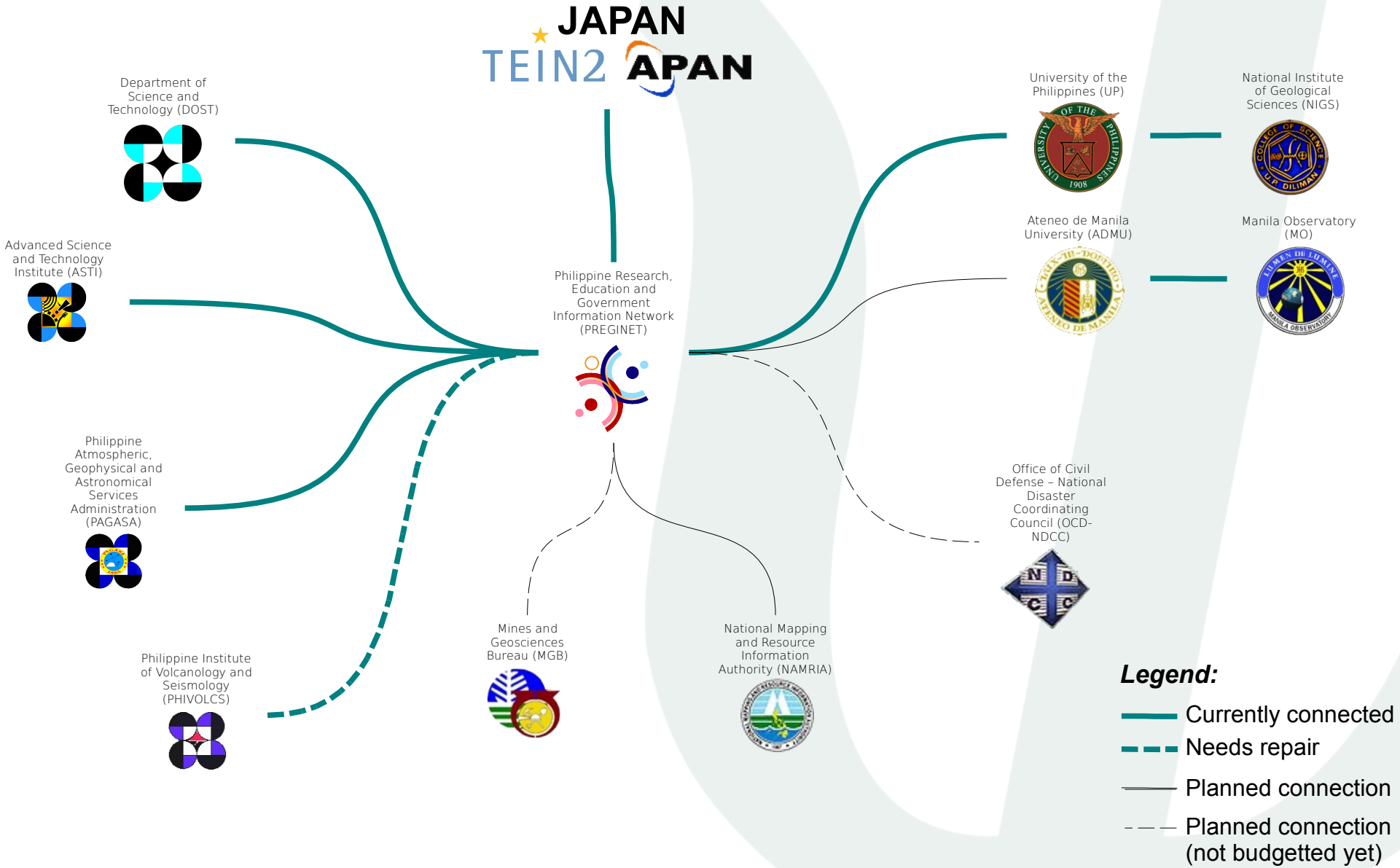
- Enterprise Solutions offered in the Philippines
  - Oracle

About ASTI

Relationships of Agencies and Universities in the Philippines

- Republic of the Philippines (RP)
  - Department of Science and Technology (DOST)
    - Advanced Science and Technology Institute (ASTI)
    - Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
    - Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - Department of Environment and Natural Resources (DENR)
    - Mines and Geosciences Bureau (MGB)
    - National Mapping and Resource Information Authority (NAMRIA)
  - Department of National Defense (DND)
    - Office of Civil Defense – National Disaster Coordinating Council (OCD-NDCC)
  - University of the Philippines (UP)
    - National Institute of Geological Sciences (NIGS)
- Society of Jesus (SJ)
  - Ateneo de Manila University (ADMU)
  - Manila Observatory (MO)

Network Connections



Thank you

“Successful response starts with a map.”
— *National Research Council*