

# The 2030 Agenda for Sustainable Development

## Where is the data?

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Seventh Session of the Committee of Experts on UN-GGIM  
1 August 2017  
United Nations Headquarters, New York



UN-GGIM

United Nations Initiative on  
Global Geospatial Information Management

*Positioning geospatial information to address global challenges*

[ggim.un.org](http://ggim.un.org)

# DISASTER RISK REDUCTION IN SUSTAINABLE DEVELOPMENT

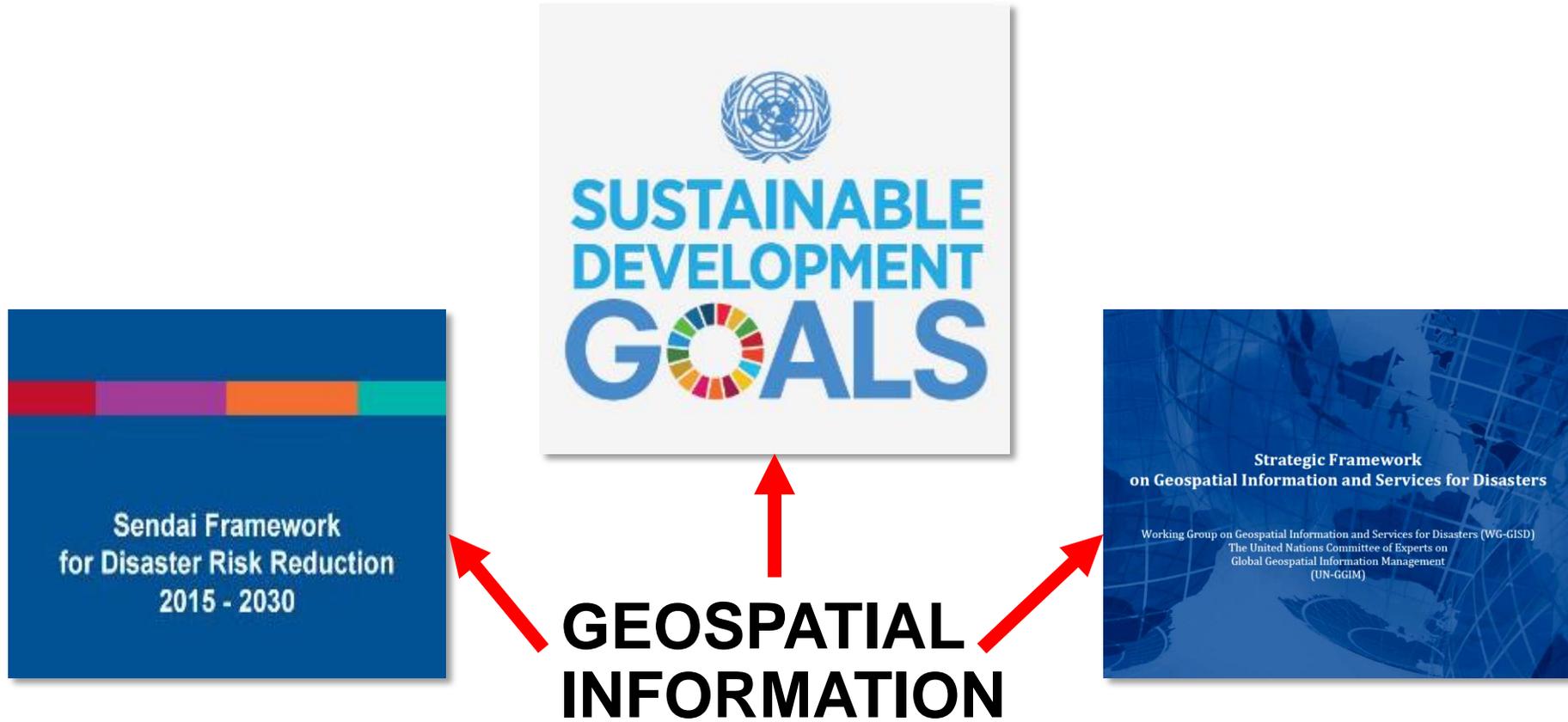
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25 targets related to DRR  
in 10 of the 17 sustainable  
development goals

# DISASTER RISK REDUCTION IN SUSTAINABLE DEVELOPMENT

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# OUTLINE

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- Institutional Setup
- Geospatial information resources
- Geospatial information needs

# INSTITUTIONAL SETUP

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- The National Mapping and Resource Information Authority (NAMRIA), as the Philippines' central mapping agency, has a unique setup. It is mandated to conduct both terrestrial and marine survey of the country's territory.
- The Agency is the primary source of topographic maps, hydrographic data, and environmental maps including land classification, land cover, and coastal resources.

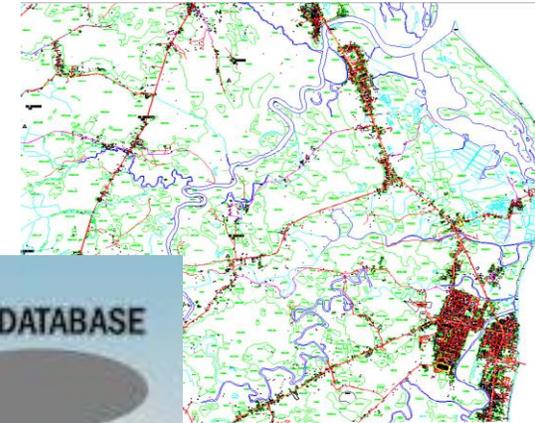
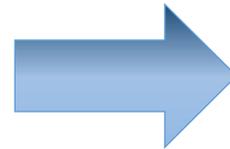
# UNIFIED MAPPING PROJECT

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- An effort to undertake a unified approach in building a common base map for various applications
- Update the country's topographic map series with a more detailed 1:10,000 maps for approximately 50% of the country's land mass and medium scale maps at 1:50,000

# UNIFIED MAPPING PROJECT

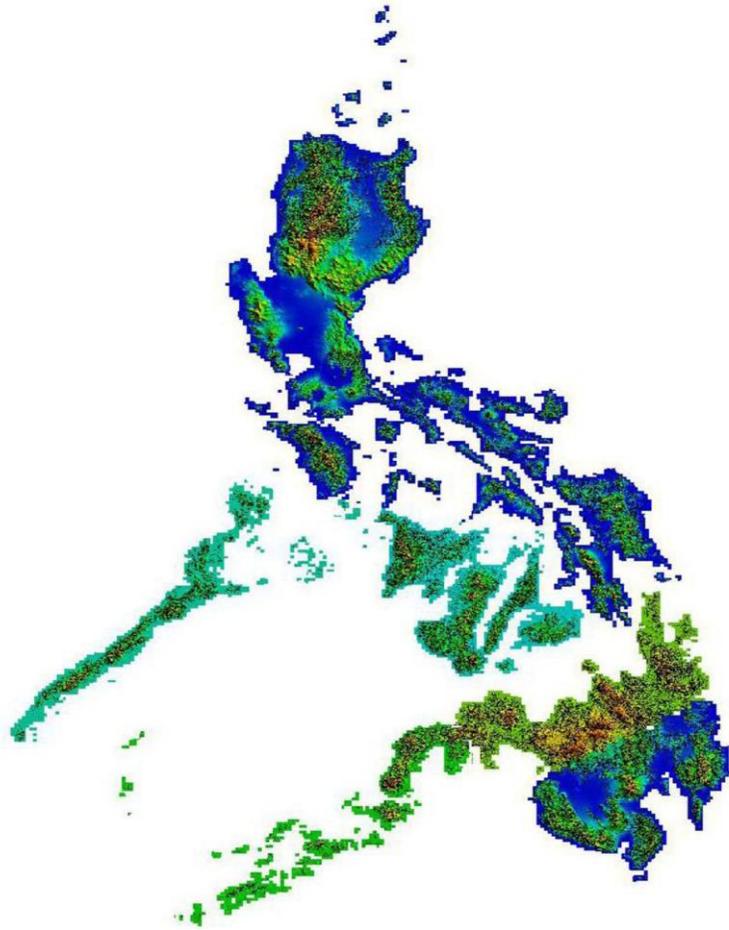
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Very high resolution images (VHRSI)

# UNIFIED MAPPING PROJECT

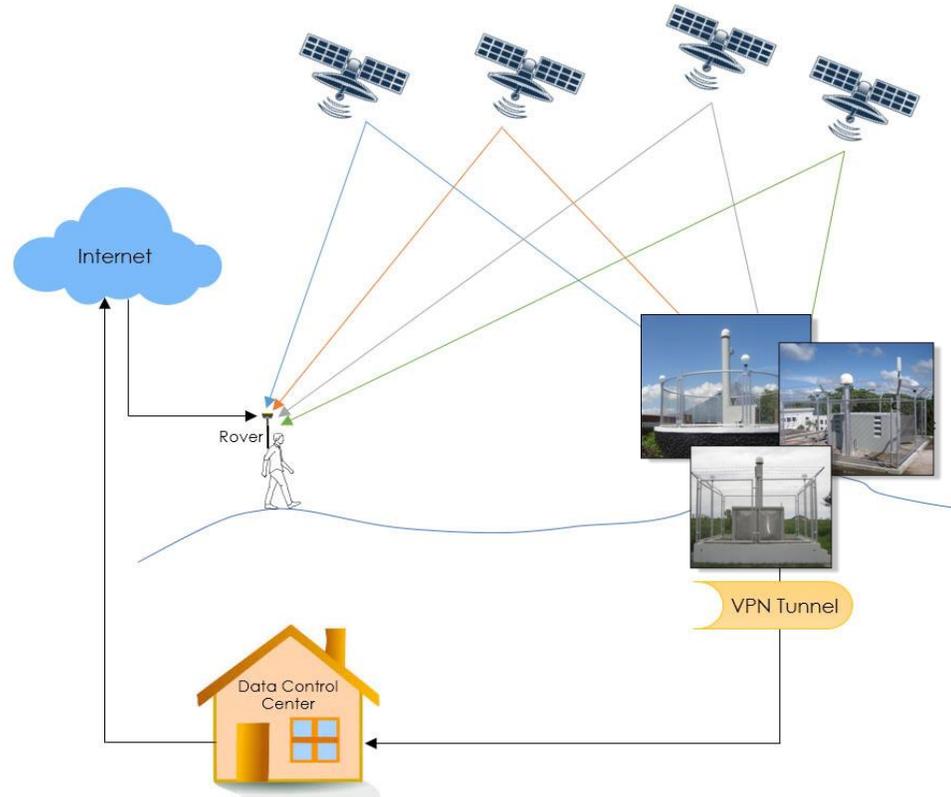
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- Nationwide Coverage
- High Resolution Digital Elevation Model
  - Digital Surface Model (DSM)
  - Digital Terrain Model (DTM)
- Orthorectified Radar Image (ORI)

# ACTIVE GEODETIC NETWORK

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- ensures accuracy of location data
- source meteorological data for better understanding of weather and climate processes

<http://www.pagenet.namria.ph>

# HYDROGRAPHY



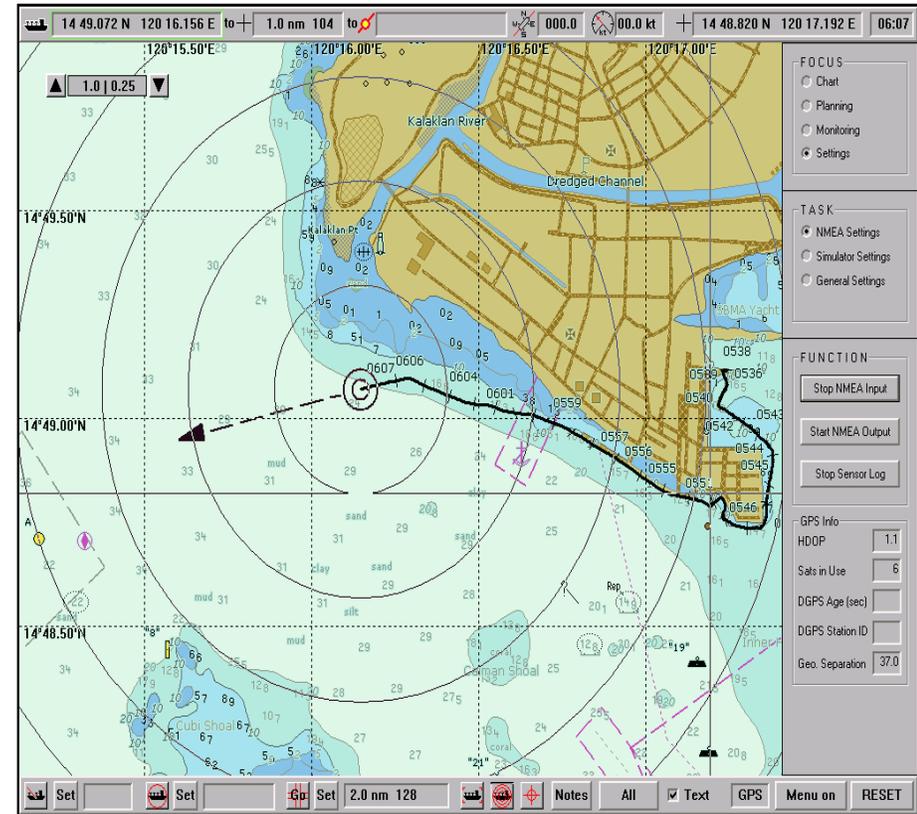
bathymetry



oceanographic data

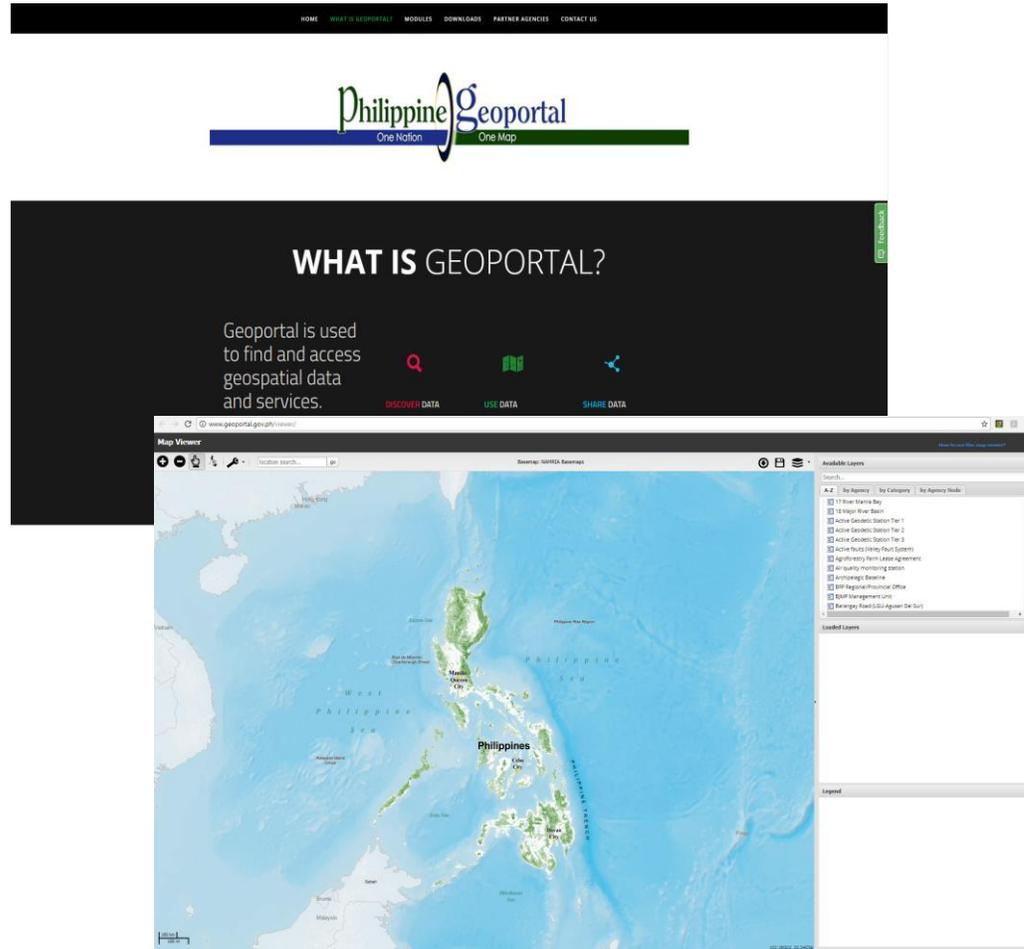


tide and current observations



Nautical chart

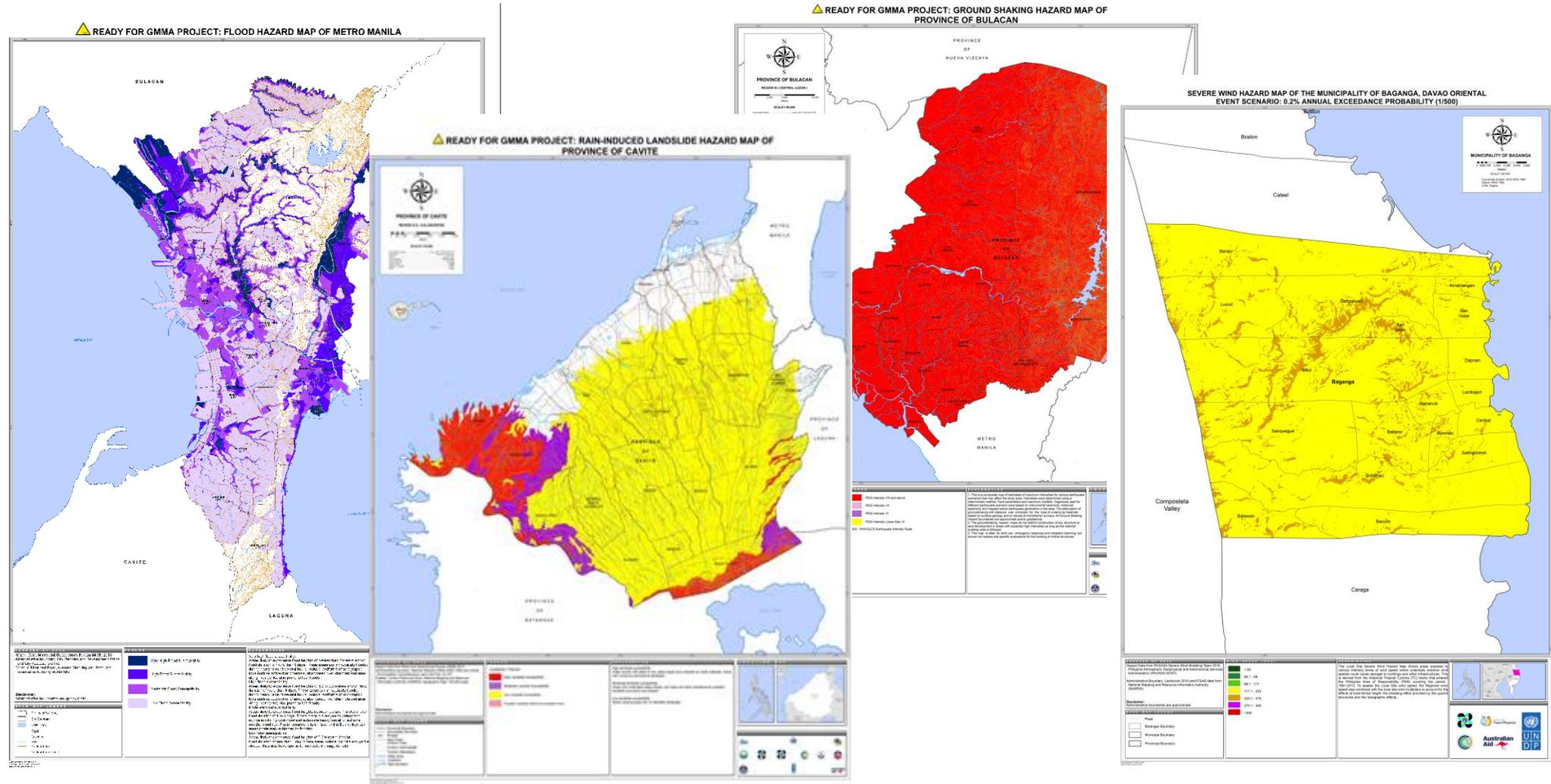
# PHILIPPINE GEOPORTAL



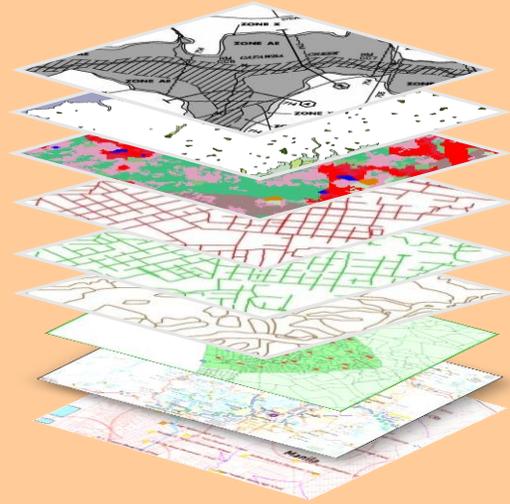
- web map service of standard multiscale basemaps
- collection of geospatial layers from 49 national government agencies and local government units
- 347 layers uploaded and 105 layers linked via a web map service (WMS)

<http://www.geoportal.gov.ph>

# PHILIPPINE GEOPORTAL

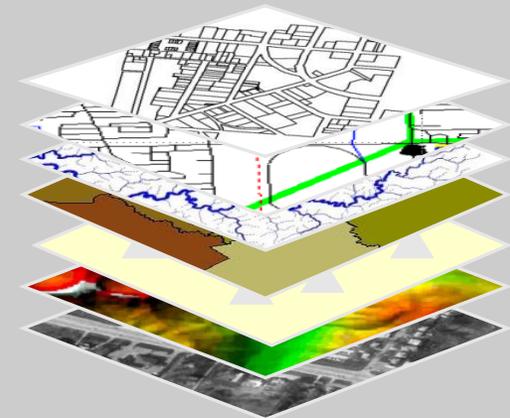


# PHILIPPINE GEOPORTAL



Hazard areas  
School Locations  
Health Centers  
Road Network  
Precinct Districts  
Parcels  
SAFDZ areas  
Barangay boundaries  
Environment data

**Operational Layers**  
**Thematic data**  
**specific to the**  
**agency/organization**



Hypsography  
Roads  
Boundaries  
Hydrology  
Geodetic Control Points  
DEM/DSM  
Building Footprints  
Orthoimage

**NAMRIA Basemap**  
**Primary reference or**  
**framework dataset**

# GEOSPATIAL FOUNDATION DATA THEMES

Theme	Description	Custodian
Geocoded Addressing	Unique street address of parcels/property	Philpost, PSA, Comelec, LGU Assessors
Administrative Boundaries - International, National, Regional, Provincial, City, Municipal & Bgy - Electoral Boundaries - Zip Code	- Jurisdictional Boundaries - Precinct Boundaries, Cong Districts - Post Code Boundaries	DENR-LMB (with NAMRIA; NSO; LGUs; other Agencies) COMELEC; (with NSO; DENR-LMB); Philpost
Feature Names/Place Names	Official and local names of cultural and geographic features	NAMRIA (with NHI & LGUs)
Land Parcels	A consistent framework of land parcel boundaries defined for land tenure purposes, referenced to a common datum and including road casements	DENR-LMB (with LRA; Registers of Deeds; LGU Assessors; DPWH)

# GEOSPATIAL FOUNDATION DATA THEMES

Theme	Description	Custodian
Imagery	Aerial photo and satellite image	NAMRIA (Other users, producers)
Transport	Physical roads, airports, navigation routes, railways, ports, harbors, wharfs	DPWH, DOTC, PPA, PNR, NAMRIA, MARINA
Hydrology	Streamlines and Inland Water bodies	NAMRIA (Other users, producers)
Elevation and depth	Terrain and surface elevations and depths	NAMRIA
Geographic Features	Building footprints, other structures, and place names	NAMRIA
Land Cover	Vegetation, rocks, and human modified surfaces such as buildings	NAMRIA

# PRIMARY REFERENCE

Theme	Description	Custodian
Geodetic Control Points	Geodetic control points; Geodetic survey marks (horizontal stations) and benchmarks (vertical stations)	NAMRIA; DENR-LMS
Hypsography	Contour line - 1:250K (100m) 1:50K (20m) 1:10K (10m)	NAMRIA
Elevation	Terrain and surface elevations	NAMRIA
Geographic Features	Building footprints, other structures, and place names	NAMRIA
Hydrology	Streamlines and Inland Water bodies	NAMRIA (Other users, producers)
Orthoimage	Aerial photo and satellite image	NAMRIA (Other users, producers)

# INFORMATION MANAGEMENT- TECHNICAL WORKING GROUP (IM-TWG)

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- serves as a venue for National Disaster Risk Reduction Management Council (NDRRMC) Member Agencies and key partners to address disaster-related data and information availability, quality and accessibility, as well as system interoperability issues across all phases of disaster risk management
- provides guidelines in establishing, managing and sharing Common and Fundamental Operational Datasets

# INFORMATION MANAGEMENT- TECHNICAL WORKING GROUP (IM-TWG)

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*Common Operational Dataset (COD)* - Key geographic objects needed to support operation and decision making. This will include but not limited to administrative boundaries, populated places, transportation network, health facilities, schools, evacuation centers

*Fundamental Operational Dataset (FOD)* - attributes or statistics attached to the key geographic objects defined as part of the CODs. This will include but not limited to population, livelihood, response capacity, and others.

# COMMON AND FUNDAMENTAL OPERATIONAL DATASETS (COD/FOD)

Category	Object/Geography (COD)	Associated attributes/statistics (FOD)
Boundary	Barangay	Population
Infrastructure	Schools (Primary, Secondary)	No. of Male Enrollees, No. of Female Enrollees, No. of Classrooms, Electricity Provision, Water Provision
Environment	Land Cover	
Hazards	Past Events, Landslide hazard distribution, Flood hazard distribution, Storm surge hazard distribution	

# WHAT NEEDS TO BE DONE

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- The need for a high-level institution to monitor, coordinate, and lead in the implementation of disaster risk management plans and programs. This will entail an amendment of Republic Act 10121.
- The need to adopt a national geospatial information policy to promote efficient production, management, dissemination and use of geospatial information for development.

**Thank you!!**