

# **MINES AND GEOSCIENCES BUREAU PROGRAMS AND SERVICES**

## **Press Conference**

November 12, 2015  
Iloilo Grand Hotel





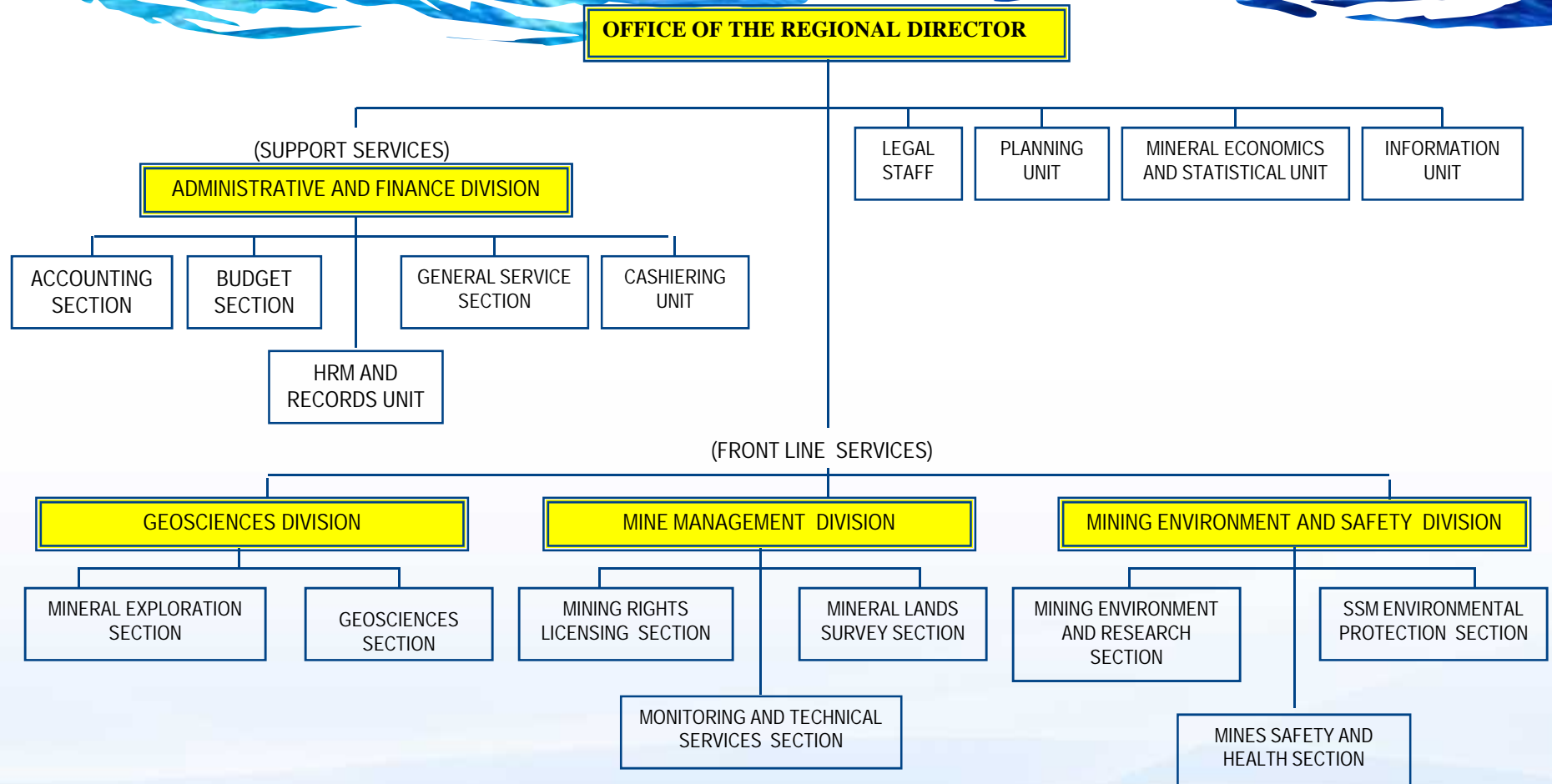
## MANDATE

The Mines and Geosciences Bureau shall be the primary government agency under the Department of Environment and Natural Resources responsible for the sustainable exploration, development, utilization and conservation of all mineral resources in public and private lands within the territory and exclusive economic zone of the Republic of the Philippines.

Towards this end, the Bureau shall be primarily responsible for the rational administration and disposition of mineral lands and resources development of mining, geological, metallurgical, chemical and related technologies thru basic and applied resources; and inventory of mineral resources.

(Section 8, RA 7942)

# MGB-6 ORGANIZATIONAL STRUCTURE



## MGB RO-6 Key Officials



**Leo Van V. Juguan, CESO V**  
Regional Director



**Mae Y. Magarzo**  
Geosciences  
Division



**Cecilia L.  
Ochavo-Saycon**  
Chief,  
Finance and  
Administrative  
Division



**Florian D. Jimenez**  
Mine Management  
Division



**Rene B. De La Cruz**  
Chief, Mine Safety,  
Environment and Social  
Development Division  
(MSESDD)



# Personnel Complement

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**Approved Plantilla Position: 75 (Based on NOSCA 1998)**

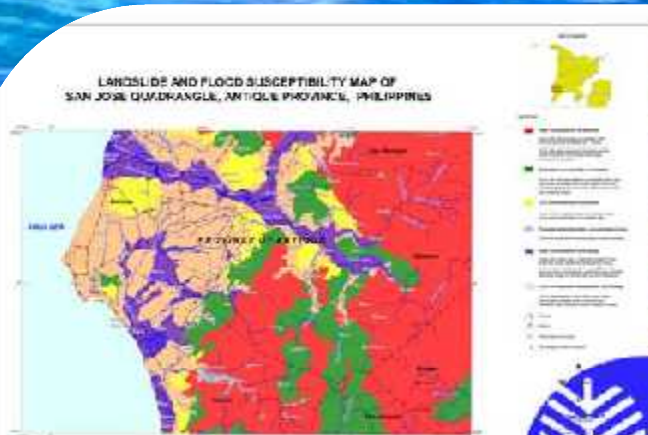
**Proposed Under EO 366: 68**

**Current Filled up Positions:**

**Regular 48**

**Contractual**

# MGB REGIONAL OFFICE PROGRAMS AND SERVICES



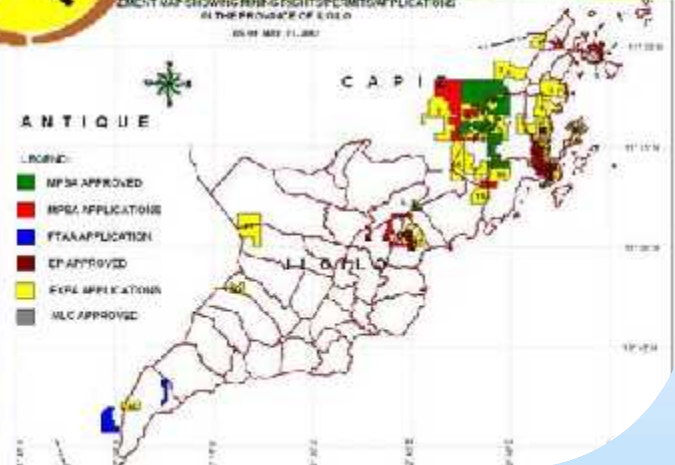
## GEOLOGIC HAZARDS: IMPACTS AND CHALLENGES ON DISASTER RISK REDUCTION

**LEO VAN V. JUGUAN**  
Regional Director

Mines and Geosciences Bureau  
Department of Environment and Natural Resources  
Iloilo City  
April 26, 2012

## RESPONSIBLE MINING TOWARDS SUSTAINABLE USE OF MINERAL RESOURCES

**LEO VAN V. JUGUAN**  
Regional Director  
Mines and Geosciences Bureau  
Regional Office No. VI  
Iloilo City





## **Geologic Hazard Mapping and Assessment Program**

- Geohazard survey and assessment of disaster-prone areas, settlements, infrastructures, civil works and areas for land development;
- Geological mapping
- Geophysical surveys in relation to mineral exploration, groundwater assessment, structural and engineering geological evaluation and geo-environmental studies;
- Geo-environmental evaluation of landfill sites and other proposed waste disposal sites;
- Production and updating of quadrangle maps;
- Mineral characterization and inventory;
- Geological coastal assessment;
- Groundwater resources assessment/identification;
- Provide mineral/rock sample analysis

## Management of Mining Tenements and Permits

- Processing, endorsement and approval of mining rights applications –  
Regional approval - Exploration Permit (EP), Industrial Sand and Gravel Permit (ISAGP) i.e., more than 5 hectares  
DENR Secretary's Approval - Mineral Production Sharing Agreement (MPSA)  
President's Approval - Financial and Technical Assistance Agreement (FTAA)
- Processing and approval of other permits related to mineral resource development /operations - Area Clearance filed with local government units (LGUs), Mineral Processing Permits, Accreditation of Retailers/Traders/Dealers of mineral by-products, Ore Transport Permit (OTP) and Umpiring/Verification of ore shipment;



## **Management of Mining Tenements and Permits**

- Monitoring of approved mining rights and mining-related technical services;
- Operation of One-Stop-Shop Committee (OSSCC) in issuing Area Clearance/Status for mining rights applications;
- Investigation of mining conflicts and illegal mining activities;
- Technical assistance to small scale miners;



## **Mine Safety, Health and Environmental Protection Program**

- Operationalization of the Contingent Liability Rehabilitation Fund (CLRF) and Multi-partite Monitoring Team (MMT);
- Evaluation and monitoring of Social Development and Management Program (SDMP) of mining companies;
- Environmental monitoring of mining and exploration areas;
- Monitoring of compliance to safety, health and environmental standards of mining companies (Safety, Health and Environment SHE Program);
- Water quality assessment of major river systems affected by operating/closed mines;
- Assessment of Adopt-a-Mountain, Adopt a Mining Forest Program of mining companies;
- Processing and issuance permits for safety and mechanical/electrical related installations

# National Geohazards Mapping and Assessment Program



Old Barangay Hall, Purok 3



## Objectives:

- identify various geological features and associated hazards;
- generate geohazard maps and reports;
- identify relocation sites, properties and infrastructures to be affected; and
- inform local officials about the susceptibility of their community/municipality to the various geohazards.

**Note: The information generated from geohazard mapping is an input in land use planning and classification as well as for disaster preparedness, management and mitigation.**



## **What has been done:**

**Scale: 1:50,000**

**Years conducted: 2006-2010**

**Status: Completed. Geohazard maps (1:50,000) distributed to all cities and municipalities of Region-6.**

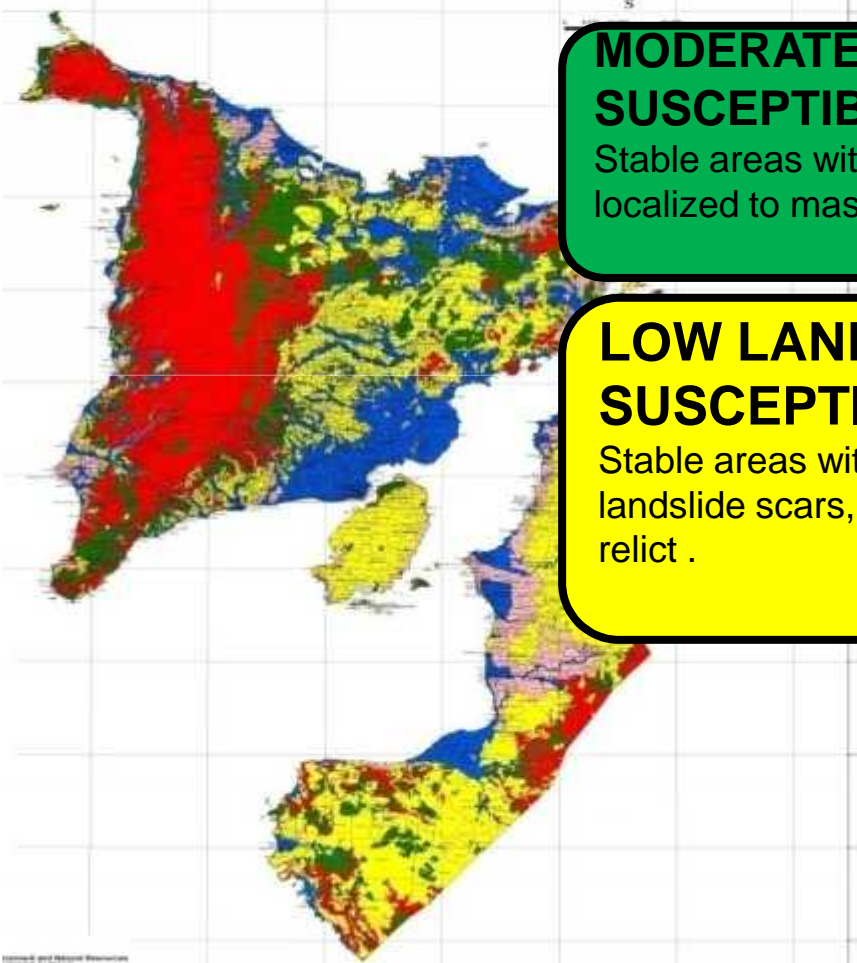
**Scale: 1:10,000**

**Years Conducted: 2011-2014**

**Status: Completed. Ongoing distribution of Preliminary geohazard maps (process of rechecking). For outsourced – ongoing digitization.**

**WESTERN VISAYAS GEOHAZARD MA**

SCALE 1 : 250,000 MTS.



**HIGH LANDSLIDE  
SUSCEPTIBILITY**

Unstable areas, highly susceptible to mass movement.

**MODERATE LANDSLIDE  
SUSCEPTIBILITY**

Stable areas with occasional or localized to mass movement.

**LOW LANDSLIDE  
SUSCEPTIBILITY**

Stable areas with no identified landslide scars, either active or relict .

**HIGH FLOOD  
SUSCEPTIBILITY**

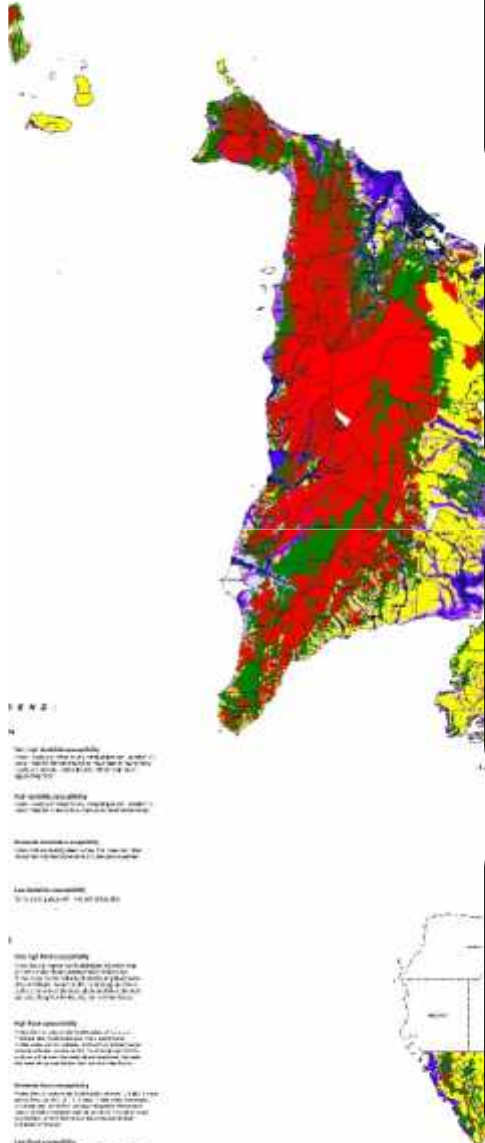
Areas likely to experience flood heights of 1.0 to 2.0 meters and/or flood duration of more than 3 days. These areas are immediately flooded during heavy rains of several hours.

**MODERATE FLOOD  
SUSCEPTIBILITY**

Areas likely to experience flood heights of 0.5 to 1.0 meters and/or flood duration of 1 to 3 days.

**LOW FLOOD  
SUSCEPTIBILITY**

Areas likely to experience flood heights of <0.5 meter and/or flood duration of less than 1 day. These areas include low hills and gentle slopes. They also have sparse to moderate drainage density.



### **VERY HIGH LANDSLIDE SUSCEPTIBILITY**

Unstable areas, significant areas of which are affected by mass movement. Human initiated effects are usually high.

### **HIGH LANDSLIDE SUSCEPTIBILITY**

Unstable areas, highly susceptible to mass movement.

### **MODERATE LANDSLIDE SUSCEPTIBILITY**

Stable areas with occasional or localized to mass movement.

### **LOW LANDSLIDE SUSCEPTIBILITY**

Stable areas with no identified landslide scars, either active or relict .

### **VERY HIGH FLOOD SUSCEPTIBILITY**

Areas likely to experience flood heights in excess of 2.0 meters and/or flood duration of more than 3 days; also prone to flashfloods.

### **HIGH FLOOD SUSCEPTIBILITY**

Areas likely to experience flood heights of 1.0 to 2.0 meters and/or flood duration of more than 3 days. These areas are immediately flooded during heavy rains of several hours.

### **MODERATE FLOOD SUSCEPTIBILITY**

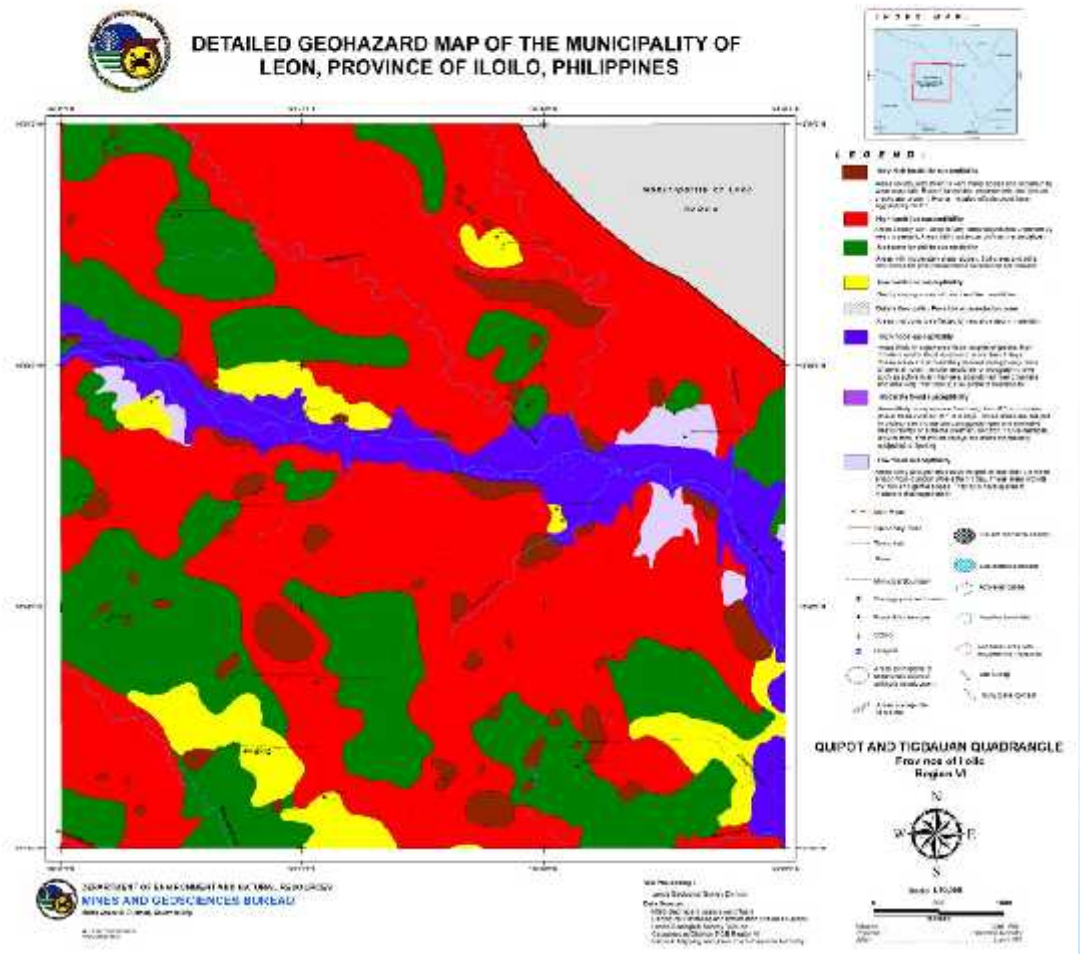
Areas likely to experience flood heights of 0.5 to 1.0 meters and/or flood duration of 1 to 3 days.

### **LOW FLOOD SUSCEPTIBILITY**


Areas likely to experience flood heights of <0.5 meter and/or flood duration of less than 1 day. These areas include low hills and gentle slopes. They also have sparse to moderate drainage density.

# Activities complementing Geohazards Mapping

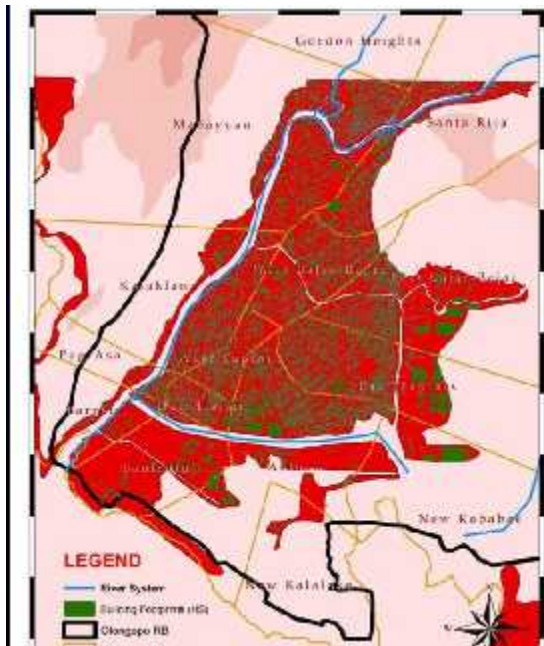
- Early warning through IEC (exit conference), issuance of Assessment Report and Advisories to the LGUs
- Installation of landslide warning signages
- Continuous IEC with other agencies (RDRRMC), schools, SBs and SPs, barangays
- Issues advisories to LGUs before typhoon hits area of responsibility and public reminders/warnings through the media





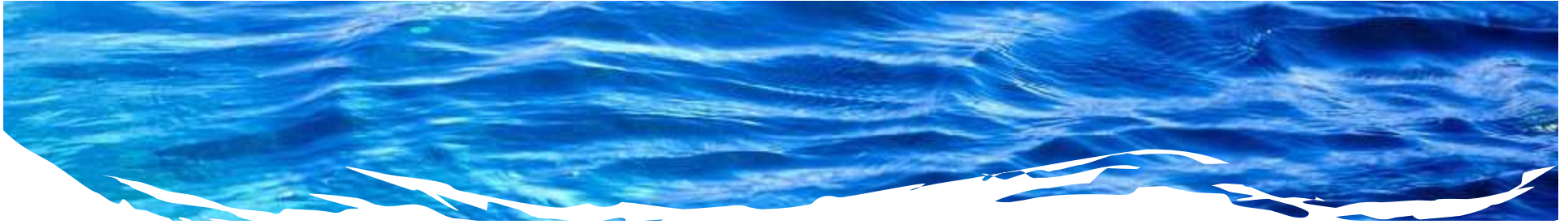


# 2015-ONWARDS PROGRAMS AND ACTIVITIES RELATED TO GEOHAZARDS MAPPING AND ASSESSMENT



**Infrastructure  
Flood  
Exposure Map  
in High  
Susceptible  
Barangays in  
Olongapo City**





- **Vulnerability and Risk Assessment (VRA)**

Output: Risk Exposure Map

2015: Kalibo, Aklan and Bago City, Negros Occidental

- **Sub-surface Assessment**

(Karst Subsidence –Sinkholes Mapping)

Output: 1:10,000 Karst Subsidence (Sinkholes) Map

2015: Buenavista, Guimaras, Passi City and Kabankalan City, Negros Occidental



- **Groundwater Resources Assessment with Resistivity Survey**

Output: 1. Hydrogeologic Map (1:50,000 scale)  
2. Groundwater Resource Map

2015: Kalibo, Aklan and Bago City, Negros Occidental

- **1:10,000 Coastal Geohazard and Impact of Climate Change Program**


Output: Coastal Geohazard Map (Erosion, Accretion, Landslides)

2015: 8 municipalities

- **Updating of 1:10,000 Geohazard Maps**



# National Greening Program (NGP)

- Executive Order No. 23 and No. 26 (both 2011) mandated the implementation of the NGP.
  - Period of implementation: 2011-2016
- 



## **Mines Sector NGP Participation (National)**

- As of today, the Mines Sector as a whole had planted **16,316,721 seedlings** over an area of **43,597.82 hectares**
  - This exceeded the target of 34,000 has. by **28.23%**.
- 




## **Mines Sector NGP Participation Region 6**

- A total of **529,039 seedlings** were planted or donated over an area of **929.70 hectares** or about **42.33 %** above the target area of 653.22 hectares to be planted.
- **37** Exploration, Mineral Production Sharing Agreements, Mineral Processing and Industrial Sand and Gravel Permit Holders/Contractors participated in the NGP.



## Mines Sector NGP Participation Region 6

Province	Companies	Seedlings Planted or Donated	Area Planted (has.)
Antique	1	21,495	19.34
Guimaras	6	9,759	20.38
Iloilo	7	83,997	108.60
Negros Occidental	23	413,788	781.38
Total	37	529,039	929.70



# Social Development and Management Program (SDMP)

- The Corporate Social Responsibility of the minerals industry is embodied in the SDMP.
- Mining contractors, permit holders and lessees are mandated to implement the SDMP “**towards the sustained improvement in the living standards of the host and neighboring communities.**”



# SDMP Fund Allocation

**1.50% of the operating costs –minimum fund to be allotted annually by the Contractor/Permit Holder/Lessee necessary to implement the SDMP, AMTG\* and IEC.**

**\*AMTG – Advancement of mining technology and geosciences**

<b>Programs</b>	<b>Fund Allocation</b>
1. SDMP	1.125% (75% of the 1.50% of the operating cost)
2. AMTG	0.150% (10% of 1.50% of the operating cost)
3. IEC	0.225% (15% of 1.50% of the operating cost)

# SDMP Implementation



**Donation/provision of medical equipment/supplies**



**Provision of footbridge**



**Construction of Daycare center**



**Construction of public comfort room**

**PHILEX GOLD PHILIPPINES, INC.**  
**Community Development Program**

**Kwentong Kabuhayan**  
 Livelihood Program

**Organic Vegetable Gardening**  
 84 cooperators  
 (Vista Alegre, Bayo, San Francisco Village, Bayog)  
 Ongoing implementation

**Kwentong Karunungan**  
 Educational Assistance Program

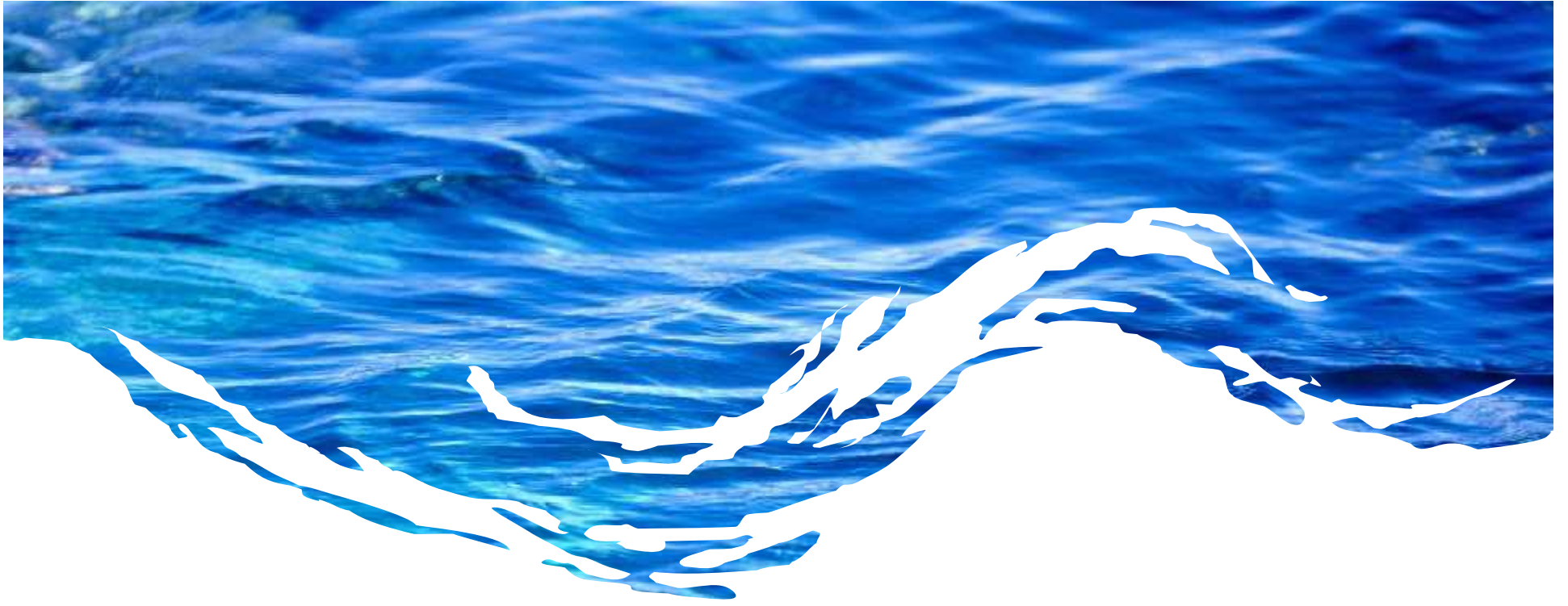
**Regovation of Day Care Center**  
 2500 Vista Alegre, Bayo, Marikina  
 December 2014

**Support/Assistance to Volunteer Teachers & Day Care Workers**  
 12 volunteer teachers  
 9 day care workers  
 Ongoing implementation

**Construction of 1 building**  
 2 unit classrooms  
 Biotechnology Elementary School  
 5700 Marikina, Bayo, Marikina  
 January 2015

# RELEVANT POLICIES

- **Executive Order No. 79:** “INSTITUTIONALIZING AND IMPLEMENTING REFORMS IN THE PHILIPPINE MINING SECTOR PROVIDING POLICIES AND GUIDELINES TO ENSURE ENVIRONMENTAL PROTECTION AND RESPONSIBLE MINING IN THE UTILIZATION OF MINERAL RESOURCES”
- Issued on July 6, 2012
- DAO 2012-07 and DAO 2012-07A, its IRR
- Relevant Provisions and immediate concerns



**Thank You!**