



# **OVERVIEW OF THE MINING INDUSTRY**

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**Department of Environment and Natural Resources**

**Republic of the Philippines**

**ROUNDTABLE DISCUSSION ON MITIGATING THE ADVERSE  
CONSEQUENCE OF MINING: REHABILITATION OF MINED-OUT SITES**

National Academy of Science and Technology

3 December 2014





## **MINERAL RESOURCES**

### **Metallic**

- Gold
- Copper
- Silver
- Nickel
- Iron
- Chromite



### **Non-Metallic**

- Sand & gravel
- Limestone
- Marble
- Clay



**Largest producer of nickel ore in 2012 and 2013**





## APPROVED MINING TENEMENTS

(As of October 2014)

TENEMENT	QUANTITY	AREA (ha)
Exploration Permit	36	120,321.75
Mineral Production Sharing Agreement	339	602,012.22
Financial or Technical Assistance Agreement	6	108,872.45
Mineral Processing Permit	95	-
Industrial Sand and Gravel Permit	188	2,470.60
Mining Patents	227	1,836.58
<b>TOTAL</b>	<b>891</b>	<b>835,513.60</b>



### OPERATING MINES

(As of August 2014)

#### 46 Metallic Mines

- 6 Gold Mines
- 5 Copper Mines
- 3 Chromite Mines
- 5 Iron Mines
- 27 Nickel Mines

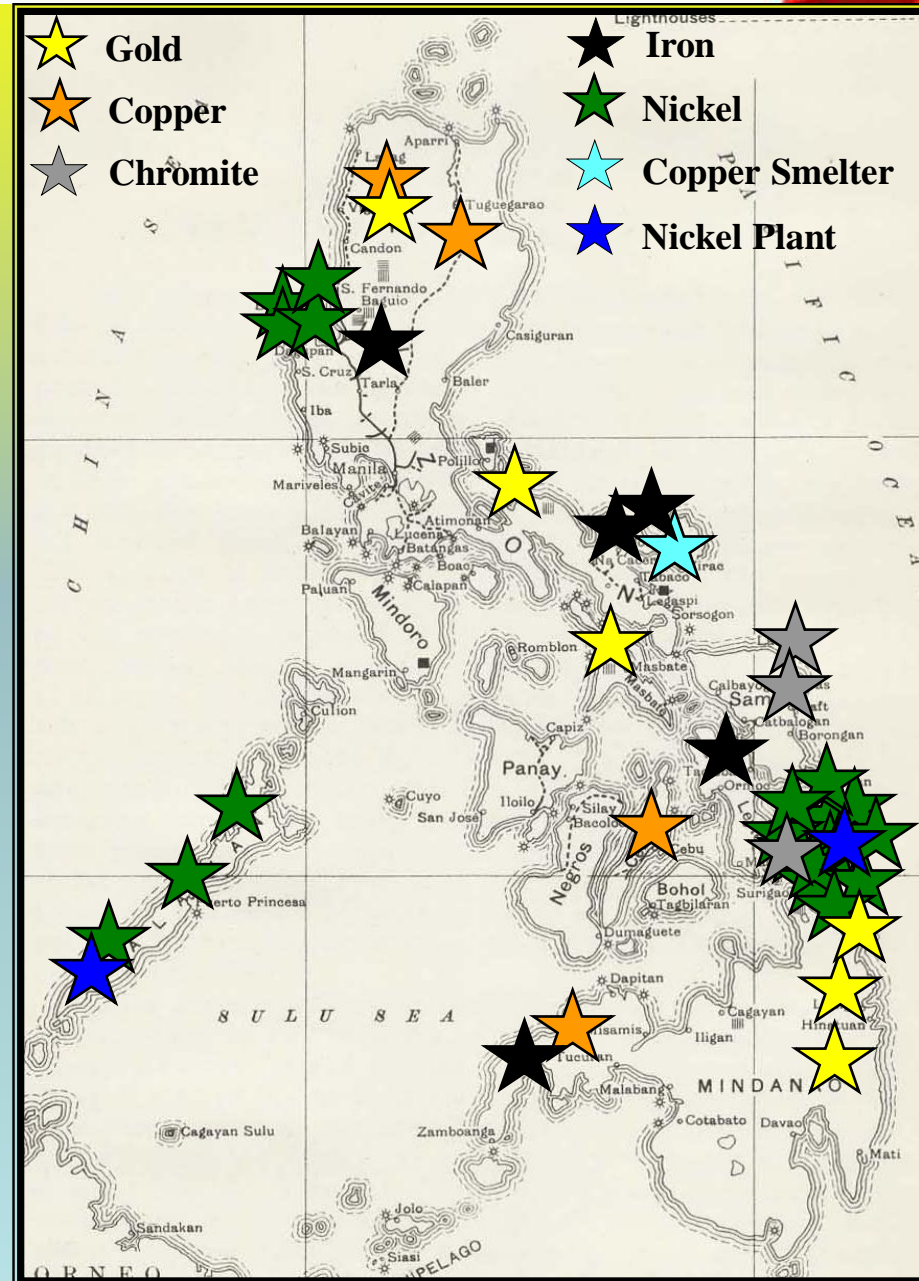
#### 55 Non-metallic Mines

#### 5 Processing Plants/Smelter

- 1 Copper Smelter
- 2 Gold Processing Plants
- 2 Nickel Processing Plants

#### 16 Cement Plants

2,500+ Non-metallic Mines/ Quarries and small-scale mines





## **MAJOR PROJECTS IN THE CONSTRUCTION/DEVELOPMENT STAGE**

<b>PROJECT</b>	<b>MINING COMPANY</b>	<b>LOCATION</b>
<b>Runruno Copper-Molybdenum Project</b>	<b>FCF Minerals Corporation</b>	<b>Quezon, Nueva Vizcaya</b>



## **MAJOR PROJECTS IN THE FEASIBILITY STAGE**

<b>PROJECT</b>	<b>MINING COMPANY</b>	<b>LOCATION</b>
<b>Tampakan Copper-Gold Project</b>	<b>Sagittarius Mines, Inc./ Xstrata Copper Plc.</b>	<b>South Cotabato, Sultan Kudarat and Davao del Sur</b>
<b>Boyongan-Bayugo Copper-Gold Project</b>	<b>Philex Mining Corporation</b>	<b>Mainit and Placer, Surigao del Norte</b>
<b>Far South East Copper-Gold Project</b>	<b>Lepanto Consolidated Mining Company/ Goldfields Limited of South Africa</b>	<b>Mankayan, Benguet</b>
<b>Kingking Copper-Gold Project</b>	<b>Nationwide Development Corporation/Russel Mining</b>	<b>Pantukan, Compostela Valley</b>





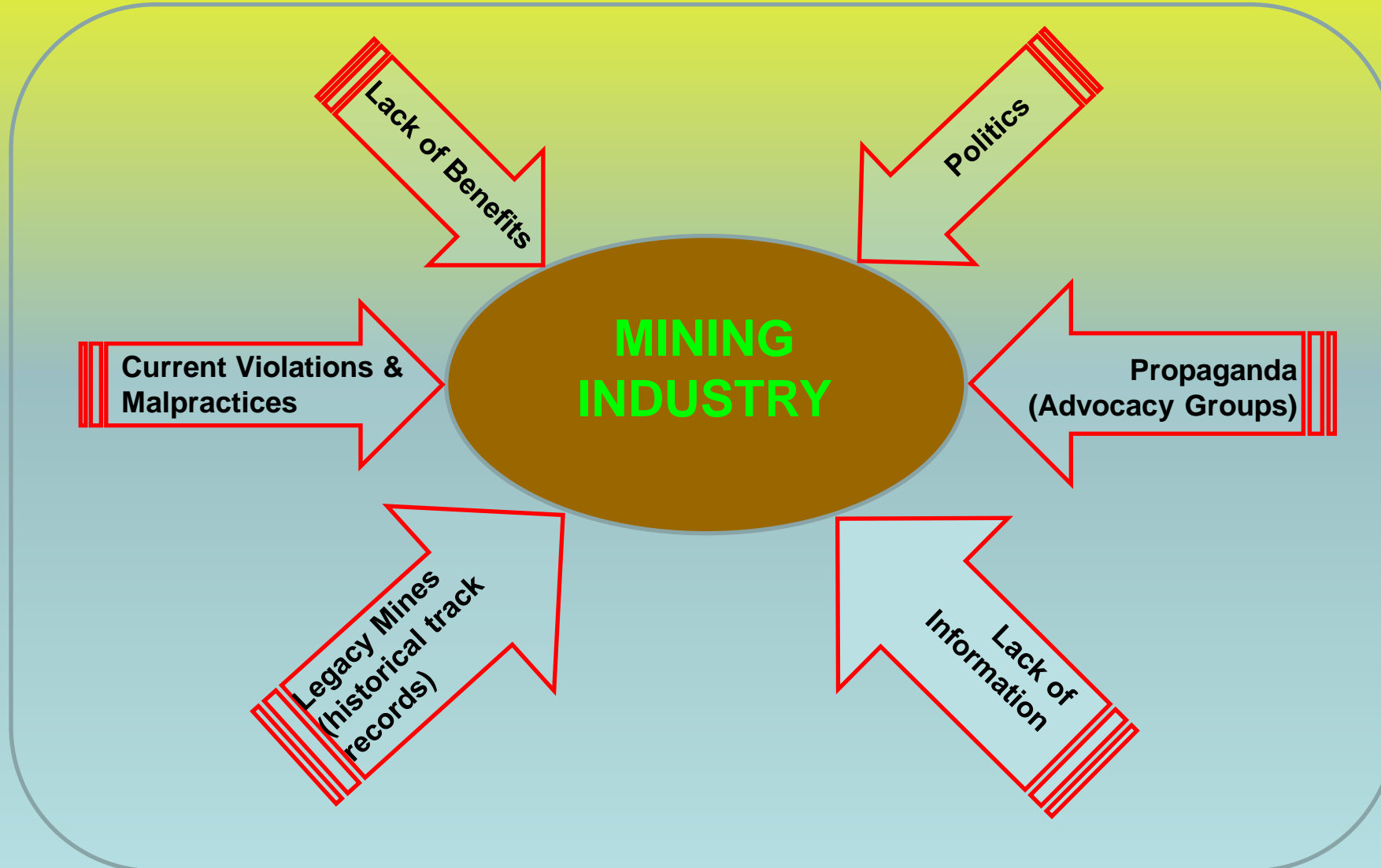
# INDUSTRY PERFORMANCE

## -MAJOR ECONOMIC INDICATORS-

Indicator	2009	2010	2011	2012	2013
Gross Production Value	\$ 2.227 B	\$ 3.221 B	\$ 3.768 B	\$ 3.407 B	\$ 3.701 B
GDP Contribution	\$ 1.381 B	\$ 1.955 B	\$ 2.237 B	\$ 1.883 B	\$ 1.833 B
	0.8 %	1.0 %	1.0 %	0.7 %	0.7 %
Export Share	\$ 1.470 B	\$ 1.929 B	\$ 2.840 B	\$ 2.337 B	\$ 3.417 B
	3.9 %	3.8 %	6.0 %	4.5 %	6.3%
Employment	169,000	197,000	211,000	252,000	222,000
	0.5 %	0.5 %	0.6 %	0.7 %	0.6 %
Taxes, Fees & Royalties from Mining	\$ 259.87 M	\$ 296.28 M	\$ 509.81 M	\$ 472.2 M	\$ 506.13 M



## ANTI-MINING SENTIMENT





## **RESULTS OF ANTI-MINING SENTIMENT**

- **Local Governments issuing ordinances and resolutions against mining;**
- **Congress considering Bills declaring mining-free provinces and cities;**
- **Government increasing regulatory requirements; and**
- **Advocacy groups filing complaints and cases against mining projects.**



## **LOCAL GOVERNMENT UNITS WITH ANTI-MINING RESOLUTIONS**

<b>Leyte</b>	<b>Mindoro Provinces</b>	<b>Aklan</b>
<b>Romblon</b>	<b>Antique</b>	<b>Cagayan de Oro City</b>
<b>Zamboanga Sibugay</b>	<b>Bohol</b>	<b>North Cotabato</b>
<b>Zamboanga del Norte</b>	<b>Samar</b>	<b>Sultan Kudarat</b>
<b>Marinduque</b>	<b>South Cotabato</b>	<b>Iloilo</b>
<b>Bukidnon</b>	<b>La Union</b>	
<b>Capiz</b>	<b>Negros Occidental</b>	
<b>Davao City</b>	<b>Guimaras</b>	
<b>Parts of Palawan, Abra, Mountain Province, Nueva Vizcaya, Cagayan, Batangas, Sorsogon, Bicol, Cebu, Leyte, Eastern Samar, Davao del Sur, Surigao del Sur, Agusan Provinces and Bohol</b>		



## **CONGRESS' ANTI-MINING BILLS FOR:**

<b>Catanduanes</b>	<b>Sorsogon</b>
<b>Romblon</b>	<b>Southern Leyte</b>
<b>Eastern Samar</b>	<b>Nueva Viscaya</b>
<b>Davao City</b>	<b>Cagayan de Oro</b>
	<b>Biliran</b>



# Department of Environment and Natural Resources

## Kagawaran ng Kapaligiran at Likas Yaman



MALACAÑAN PALACE  
MANILA

BY THE PRESIDENT OF THE PHILIPPINES

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

expanding productivity as the key to raising the quality of life for all, especially the underprivileged; and that in the pursuit of these goals, all sectors of the economy and all regions of the country shall be given optimum opportunity to develop;

WHEREAS, Section 2, Article XII of the 1987 Constitution provides that the exploration, development, and utilization of mineral resources shall be under the full control and supervision of the State;

WHEREAS, further to Section 2, Article XII of the 1987 Constitution, which recognizes the small-scale utilization of resources by Filipino citizens, small-scale mining shall be recognized as a formal sector of the industry;

WHEREAS, Section 22, Article II of the 1987 Constitution provides that the State recognizes and promotes the right of indigenous cultural communities within the framework of national unity and development, and Republic Act (RA) No. 8371, or the Indigenous Peoples Rights Act (IPRA) of 1997, recognizes further the indigenous peoples' (IPs) right to develop their lands and natural resources within their ancestral domains, subject to their free, prior, and informed consent (FPIC);

WHEREAS, Section 7, Article X of the Constitution provides that local government units (LGUs) are entitled to an equitable share in the proceeds of the utilization and development of the national wealth within their jurisdiction, and the Local Government Code of 1991 provides that LGUs have the duty and authority to protect and co-manage the environment and enhance the right of the people to a balanced ecology;

WHEREAS, Section 2 of RA No. 7492, otherwise known as the Philippine Mining Act of 1995, provides that it shall be the responsibility of the State to promote the rational exploration, development, utilization, and conservation of the country's mineral resources through the combined efforts of government and the private sector

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cluding the mining-related maps.

Environmental Impact Assessment.  
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government agencies involved in the  
to allocate from their existing funds such  
egatory requirements that may be needed to  
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pertinent IRRs within sixty (60) days from the

ause, if any provision of this Order is declared  
er provisions unaffected shall remain valid and

ause. All other rules, regulations and issuances or  
with this Executive Order are hereby repealed or

This Order shall take effect immediately upon its  
al circulation.

in the year of our

By the President:

PAQUITO N. OCHOA, JR.  
Executive Secretary



Handwritten signature and official stamp.



## **HIGHLIGHTS OF THE MINING POLICY**

- **Clarifying the Areas Closed to Mining Applications.**
- **Full Enforcement of Environmental Standards.**
- **Review of the Performance of Existing Mining Operations and Cleansing of Non-Moving Mining Rights Holders.**
- **Freeze in Grant of Mineral Agreements Pending New Legislation on Revenue Sharing.**
- **Grant of Mining Rights thru Competitive Public Bidding.**



## highlights. . .

- **Declaring Abandoned Ores and Tailings as Assets of the State for Bidding.**
- **Development of Downstream Industries for the Mineral Sector.**
- **Constituting the Cabinet-Level Mining Industry Coordinating Council (MICC).**





## **highlights. . .**

- **Rationalizing Small-Scale Mining Activities.**
- **Addressing the Conflicts between Local Ordinances and the National Laws.**
- **Creating a One-Stop Shop for All Mining Applications.**
- **Joining the Extractive Industries Transparency Initiative.**

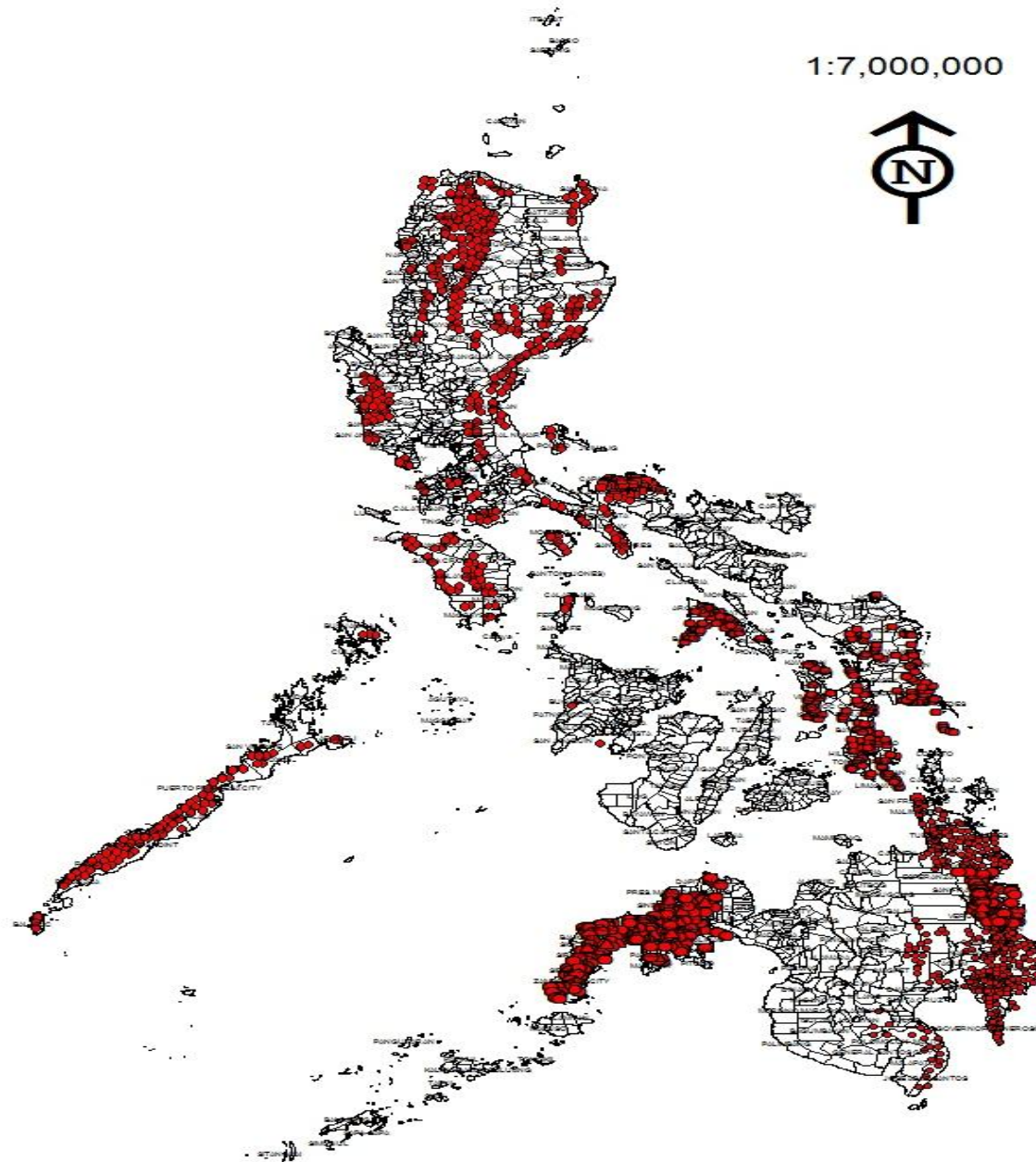


## **highlights. . .**

- **Creation of a Centralized Database for the Mining Industry.**
- **Creation of an Integrated Map System for Mining.**
- **Creation of an Anti-illegal Mining Task Force.**
- **Use of the Programmatic Environmental Impact Assessment in Mining.**



# **Mining Reforms: Status of Implementation of the Mining Policy**

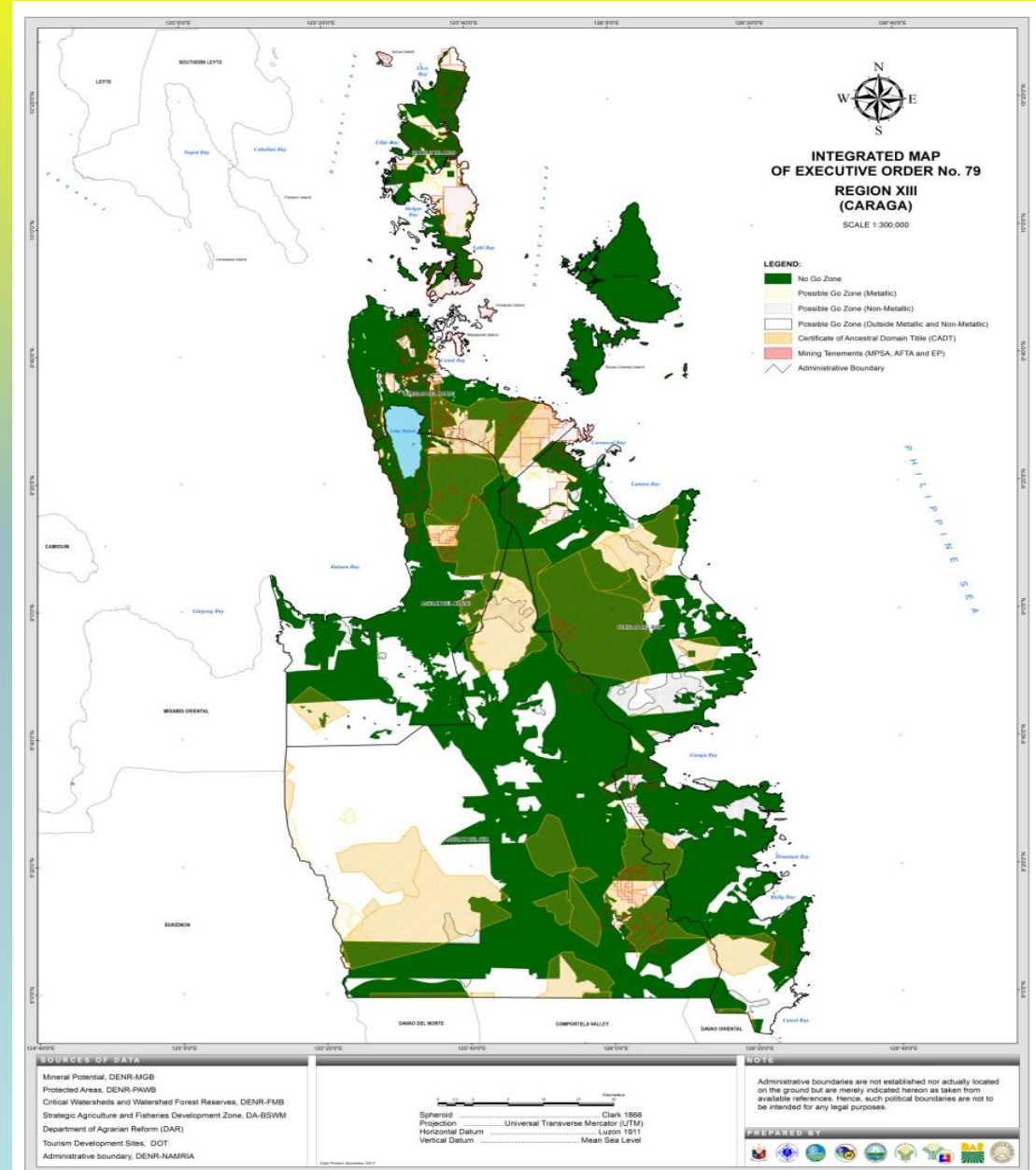


**MAP  
SHOWING THE MAJOR  
CLUSTERS  
(in red dots)  
COVERED BY  
MINING APPLICATIONS  
(2010)**



## ON THE INTEGRATED MAP

- No-Go Zone Map prepared as a major input to the Integrated Map.
- The Government's Mining Industry Coordinating Council approved the adoption of the map.
- Government now accepting and processing applications for Exploration Permits.





## ON THE PARTICIPATION IN THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI)

- Multi-stakeholder group created.
- PH was officially admitted as candidate.
- Consultation process ongoing.



THE EITI STANDARD



PH-EITI



# ON THE MEASURES TO IMPROVE SMALL-SCALE MINING

- **Revised guidelines under final review:**
  - **Allowing Small-scale only in Minahang Bayan or Small-Scale Mining Areas.**
  - **Providing for centralized processing plant**
  - **Banning the use of Hg.**
  - **Transfer of permitting authority from Governor to Provincial Mining Regulatory Board**





## **ON THE NEW REVENUE SHARING SCHEME**

- **Proposed legislation on new sharing scheme to be filed at Congress:**
    - ✓ **10% of the gross revenue**
    - or
    - ✓ **55% of Adjusted Net Mining Revenue (ANMR) + portion of Windfall Profit,**
- whichever is higher.





## ON THE REVIEW OF PERFORMANCE OF EXISTING MINING OPERATIONS

- Multi-Stakeholder Teams created in every Regions.
- Cleansing process ongoing; 43 MPSAs recommended for cancelation.





## ON ILLEGAL MINING

- Task Force against illegal mining created.
- Fact-Finding Committee on Illegal Mining created.
- Anti-illegal mining operations launched.
- Moratorium on issuance of transport/export permit enforced.





# ON THE VALUE ADDING AND DEVELOPMENT OF DOWNSTREAM INDUSTRIES IN MINING

- National Roadmap for the Development of Value Adding Activities and Downstream industries



The HPAL process creates valuable intermediate products in the form of Mixed Ni and Co Sulfides.

**HPAL TECHNOLOGY**



## **ON CERTAIN MINING ISSUES:**

- a. Tampakan Gold Mining Project of Sagittarius Mines, Inc.**
  - Inter-Agency Working Group (IAWG) created.**
  - Ongoing FPIC process.**
  - SMI-Glencore required to comply with the requirements of the FTAA and the Mining Act.**



## **b. Expansion of Mineral Production Sharing Agreement Contract Areas:**

- Allowing MPSA Contract areas of operating mines with available mineral resource/reserved to be expanded subject to review by the MICC.**

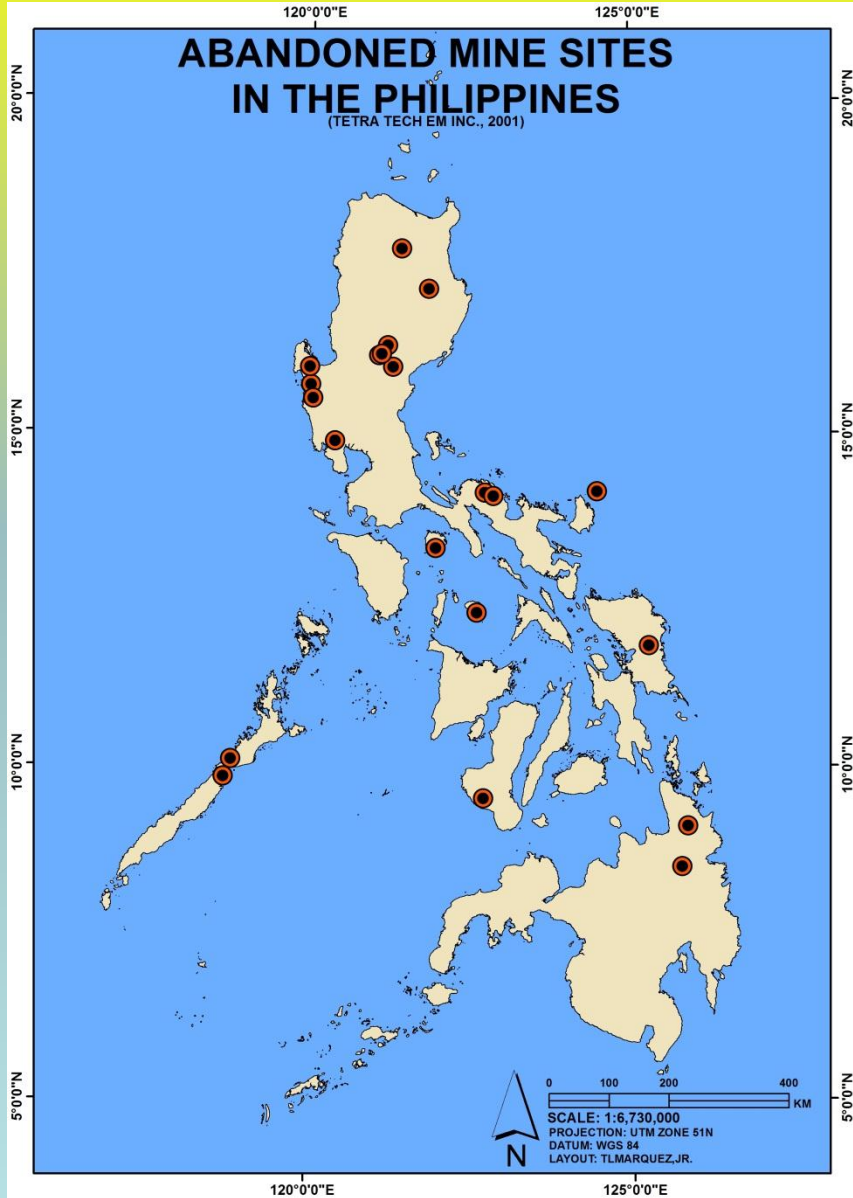


## **Benefits and Outcomes**

- 1. Clear and predictable policies.**
- 2. Secured mining investments and elimination of speculative ventures.**
- 3. Promotion of Good Governance and Responsible Mining.**

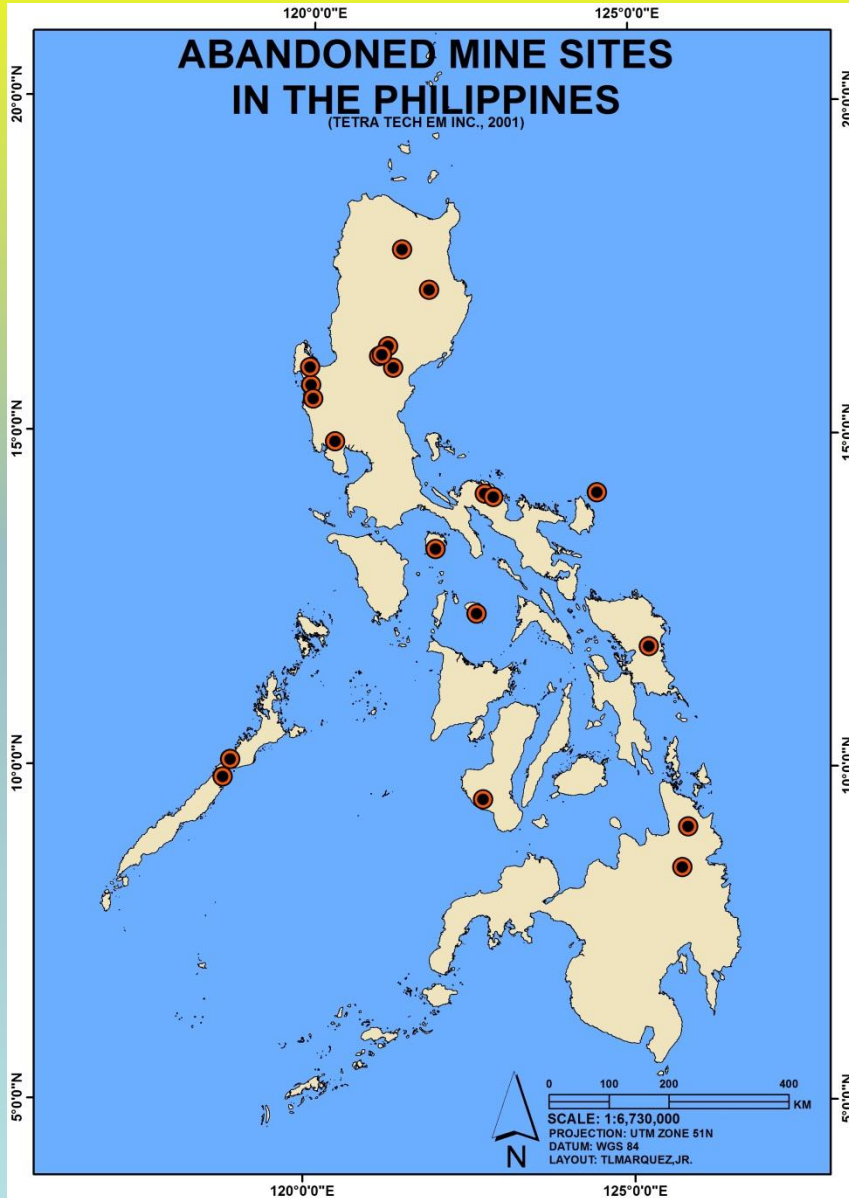


**SUPPLEMENTAL PRESENTATION:  
Status of Abandoned/Inactive Mines**



Company	Mineral Extracted	Location	Region
Acoje Mining Company, Inc. (AMCI)	Metallurgical Chromite	Sta. Cruz, Zambales	III
Barlo Mining Corporation (BMC)	Copper	Mabini, Pangasinan	I
Batong Buhay Gold Mines Inc.	Gold	Pasil, Kalinga	CAR
Benguet Corp. - Antamok Mines (BC-BAGO)	Gold	Itogon, Benguet	CAR
Benguet Consolidated Mining Corp. (BCMC)	Gold	Itogon, Benguet	CAR
Benguet Corporation – Dizon Copper/Gold Mines (BCD)	Copper	San Marcelino, Zambales	III
Masinloc Chromite Mines – Benguet Corporation (MCM-BC)	Refractory Chromite	Masinloc, Zambales	III
Benguet Exploration Mine (BEM)	Gold	Tuba, Benguet	CAR
Black Mountain Inc. (BMI)	Gold	Tuba, Benguet	CAR
Filminera Resources Corporation (FRC) formerly Banahaw Mining and Development Corp.	Gold	Rosario and Bunawan, Agusan del Sur	XIII
CDCP-Basay Mine (CDCP-Basay)	Copper	Basay, Negros	VII
Ino and Capayang Mines (ICM)	Copper	Mogpog, Marinduque	IVB
Heritage Mining Corp. Alamag Processing Group	Chemical Chromite	Llorente, Eastern Samar	VIII
Hixbar Gold Mining (HIXBAR)	Gold	Rapu-Rapu Island, Albay	V
Romblon Marble Mining (RMM)	Marble	Romblon	IVB
Palawan Quicksilver Mines, Inc. (PQMI)	Mercury	Palawan	IVB
Philippine Iron Mines (PIM)	Iron	Jose Panganiban, Camarines Norte	V
Philippine Pyrite Corporation (PPC)	Pyrite	Bagacay, Samar	VIII
Silica Sand Mine (SSM)	Silica	Palawan	IVB
Surigao Consolidated Mining Co., Inc. (SURICON)	Gold	Siana and Mapawa, Surigao del Norte	XIII
United Paragon Mining Corporation (UPMC)	Gold	Paracale, Camarines Norte	V
Vulcan Mining Corporation (VMC)	Gold	Cordon, Isabela	II





COMPANY	LOCATION	REGION
Maricalum Mining Corporation	Sipalay, Negros Occidental	VIII
Philex Gold , Incorporated - Sibutad Operations	Sibutad, Zamboanga del Norte	IX
North Davao Mining Co.	Maco, Davao del Norte	XI
Marcopper Mining Corporation	Sta. Cruz, Marinduque	IVB
Philex Mining Corporation - Sto. Niño Mines (formerly: Baguio Gold Mining Company)	Tublay, Benguet	CAR
Sabena Mining Corporation	New Bataan, Davao del Norte	XI
Benguet Corporation - Paracale Gold Operations	Jose Panganiban, Camarines Norte	V
Philex Gold , Incorporated - Bulawan Operations	Brgy. Nabulao, Negros Occidental	VI
Itogon-Suyoc Mines, Incorporated	Sangilo, Itogon, Benguet	CAR
Benguet Corporation – Balatoc Mines	Acupan, Itogon, Benguet	CAR
South Seas Natural Resources, Inc.- Mabuhay Mine	Surigao del Norte	XIII
Unidos Mining Corporation	Brgy. Unidos, Nabas, Aklan	VI
Filminera Resources Corporation (formerly: Atlas Cons. Mining and Dev't. Corp.- Masbate Gold Optns.)	Bariis, Aroroy, Masbate	V
Atlas Cons. Mining and Dev't. Corp. - Copper Optns.	Placer, Surigao del Norte	VII
Manila Mining Corporation	Placer, Surigao del Norte	XIII



## Status of MGB Mine Rehabilitation Program

<b>ACCOMPLISHMENT</b>	<b>FREQUENCY</b>
Conduct of Reconnaissance Survey	17
Full implementation of Rehabilitation Measures	1
Ongoing Implementation of Interim Rehabilitation Measures	2
Completion of Geo-Environmental Risk Assessment and Environmental Management Plan	5
Ongoing Geo-Environmental Risk Assessment and Environmental Management Plan	4
Ongoing Hydrological Study	1



## **BAGACAY MINE**



**Ongoing phytoremediation research**



**Ongoing phytoremediation research**



**Reforestation of peripheral site**



## **BLACK MOUNTAIN, INC.**





# **PALAWAN QUICKSILVER MINES, INC.**



**Previous open pit**



**Artist's perspective for the proposed Recreational Facility in PQMI**





Thank you.

