

REALIZING THE POTENTIALS OF THE MINING INDUSTRY IN A NEW REGIME The Philippine Example

Asia Pacific Mineral Resource Exhibition and Conference 2016

Kuala Lumpur, Malaysia

November 10, 2016



The Chamber of Mines of the Philippines.

Working for responsible mining.



ON REALIZING THE POTENTIALS OF THE MINING INDUSTRY IN A NEW REGIME

- ① Align industry programs with the plans of the new administration
 - Industrialization: Revitalization of the Steel Industry
 - Environmental Management: DSTP System
- ② Responsible Mining: Key to realizing the potentials of the mining industry
 - What defines Responsible Mining?
 - Best Mining Practices in the Philippines

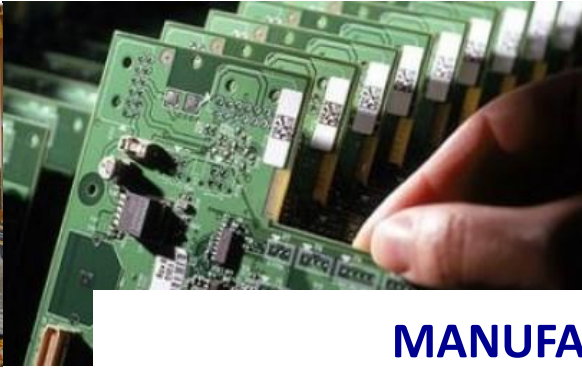
The Chamber of Mines of the Philippines.
Working for responsible mining.



INDUSTRIALIZATION: REVITALIZING THE STEEL INDUSTRY



1. The Chamber of Mines of the Philippines.
Working for responsible mining.



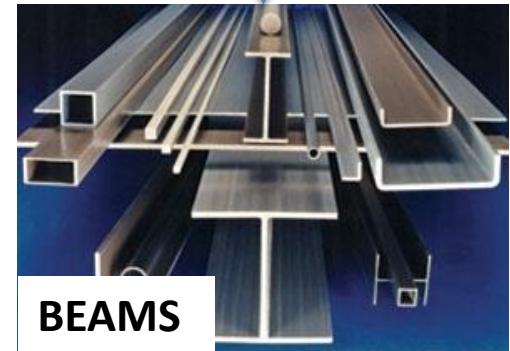
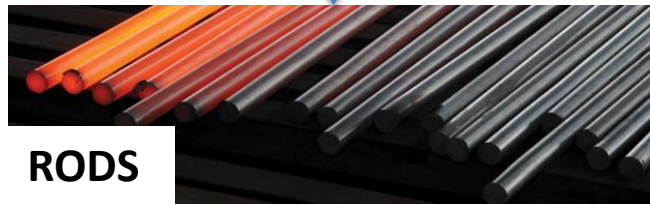
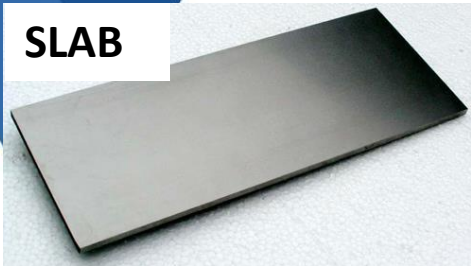
MANUFACTURING & POWER



TRANSPORTATION



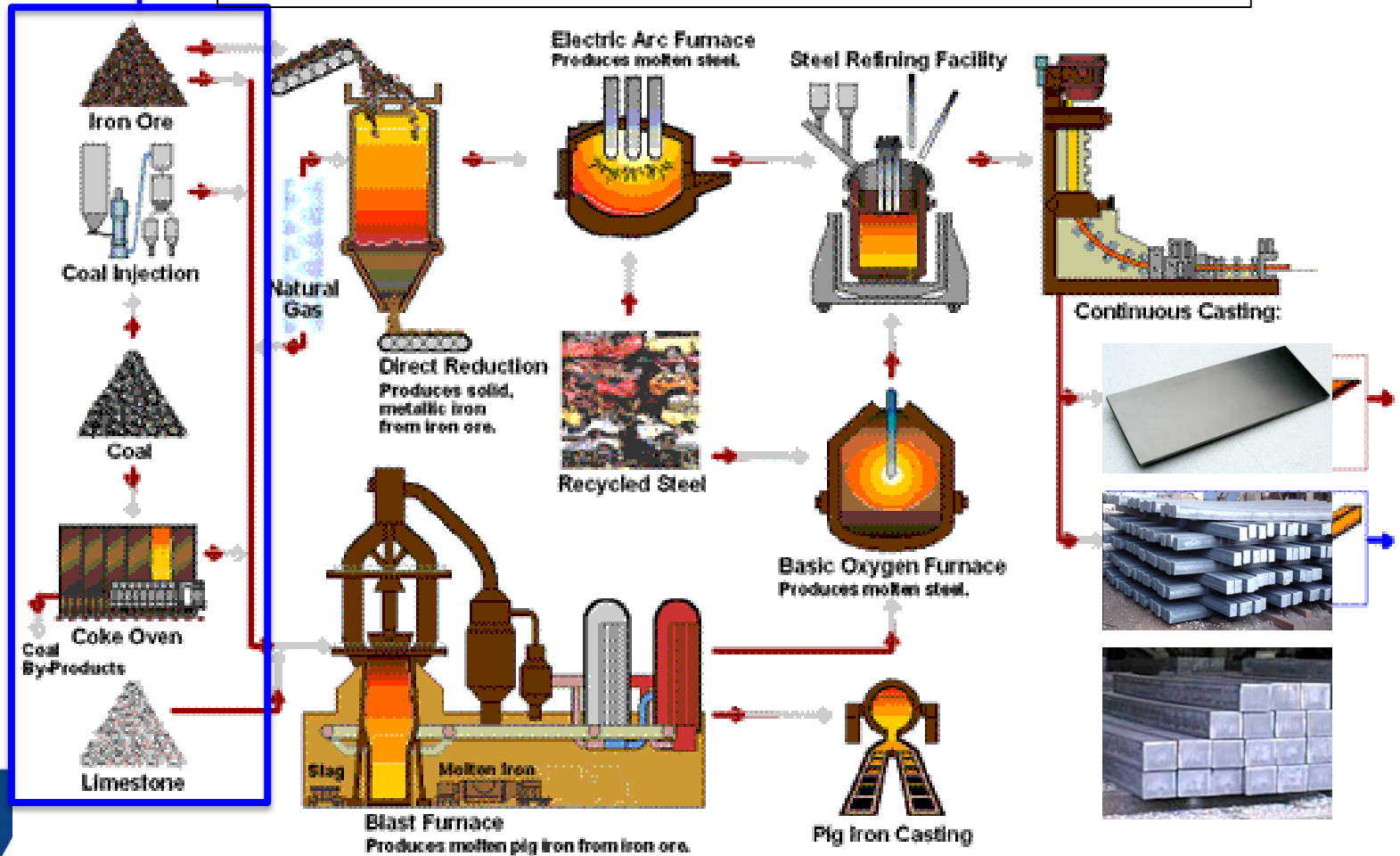
INFRASTRUCTURE & URBAN DEVELOPMENT



MAJOR STEEL APPLICATIONS



IRON, COAL, LIMESTONE, NICKEL, CHROMITE, AND OTHER RAW MATERIALS THAT HAVE TO BE MINED



STEELMAKING PROCESS FLOWCHART



ESTIMATED PHILIPPINE MINERAL RESERVES

Mineral	Million Tons	Average Grade
Gold	3,869	2.68 g/t
Copper	5,051	0.9%
Nickel	783	2.62%
Chromite	38	24.55%
Iron	483	42.05%
Manganese	3	45.31%
Aluminum	434	27.5%
Zinc	11.4	2.66%
Molybdenum	306	0.08%

* Source: ANZCHAM



COMPARISON OF STEEL PRODUCTION IN SELECTED COUNTRIES

(in '000 tons)	1983	1990	1996	2002	2008	2014
Vietnam	60	85	271	319	2,024	5,847
Thailand	244	685	2,143	2,538	5,211	4,095
Indonesia	983	2,892	4,109	2,462	3,915	4,428
Malaysia	350	1,100	3,216	4,722	6,423	4,316
Philippines	200	600	920	550	711	1,196
Singapore	305	489	531	460	764	540
Myanmar	35	25	25	25	25	35

* Source: World Steel Association

The Chamber of Mines of the Philippines.
Working for responsible mining.





KEY STRATEGIES TO REVIVE THE STEEL INDUSTRY

1. Strengthen national policy instruments to develop the minerals and steel industries in the country
2. Revitalize the existing assets of National Steel Corporation in Iligan City
3. Implement the integration of the National Steel Corporation facility to consider use of indigenous materials
4. Foster research and investments in downstream processing and value-adding industries

The Chamber of Mines of the Philippines.
Working for responsible mining.



RESPONSIBLE MINING: KEY TO REALIZING THE POTENTIALS OF THE MINING INDUSTRY





WHAT DEFINES RESPONSIBLE MINING?



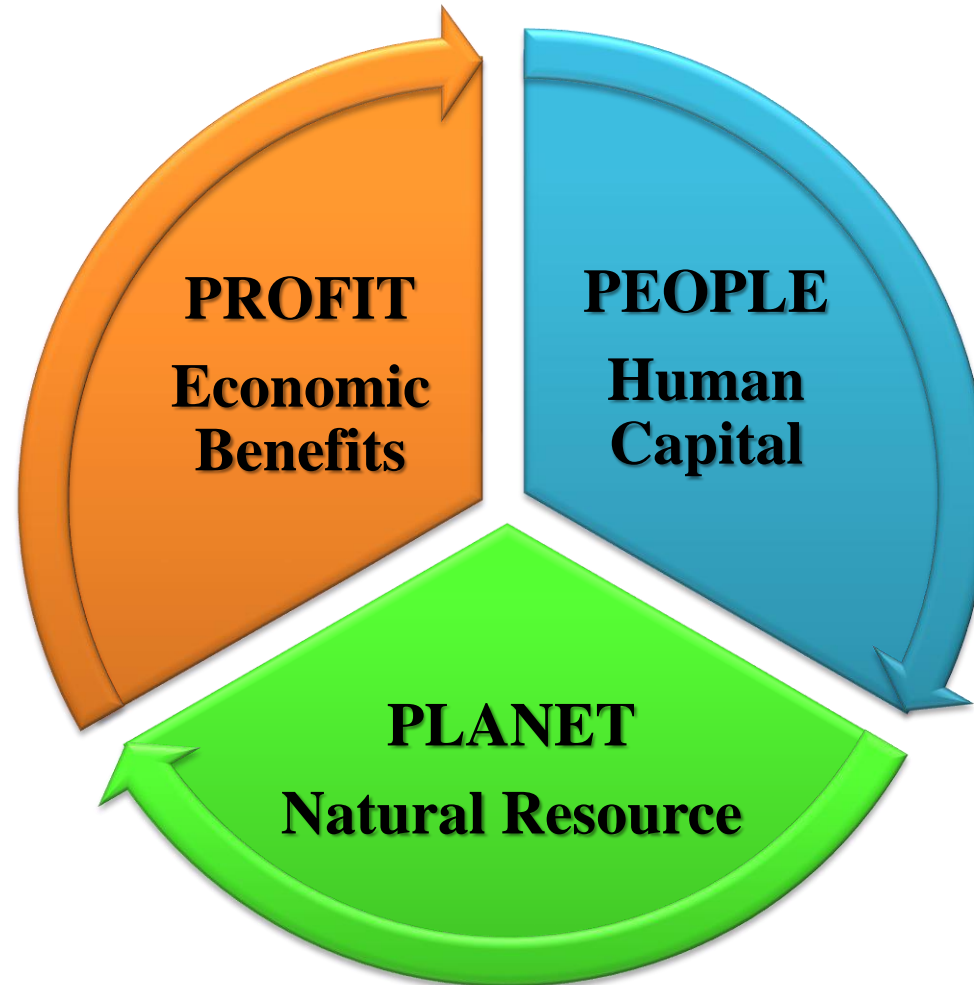


PRINCIPLES OF SUSTAINABLE MINING FOR RESPONSIBLE MINING PHILIPPINE MINING ACT OF 1995

1. Protect the environment in all stages of mining
2. Protect the rights of affected communities, including the rights of indigenous cultural communities
3. Should lead to wealth-generating opportunities for people and to other environment-responsible endeavors
4. Shall be undertaken with due and equal emphasis on economic and environmental considerations, as well as for health, safety, social and cultural concerns
5. Conservation of minerals through recycling of mineral-based products and through the technological efficiency of mining operations



**MINERAL WEALTH INTO NATIONAL RESOURCE THROUGH
THE TRIPLE BOTTOM LINE FORMULA**





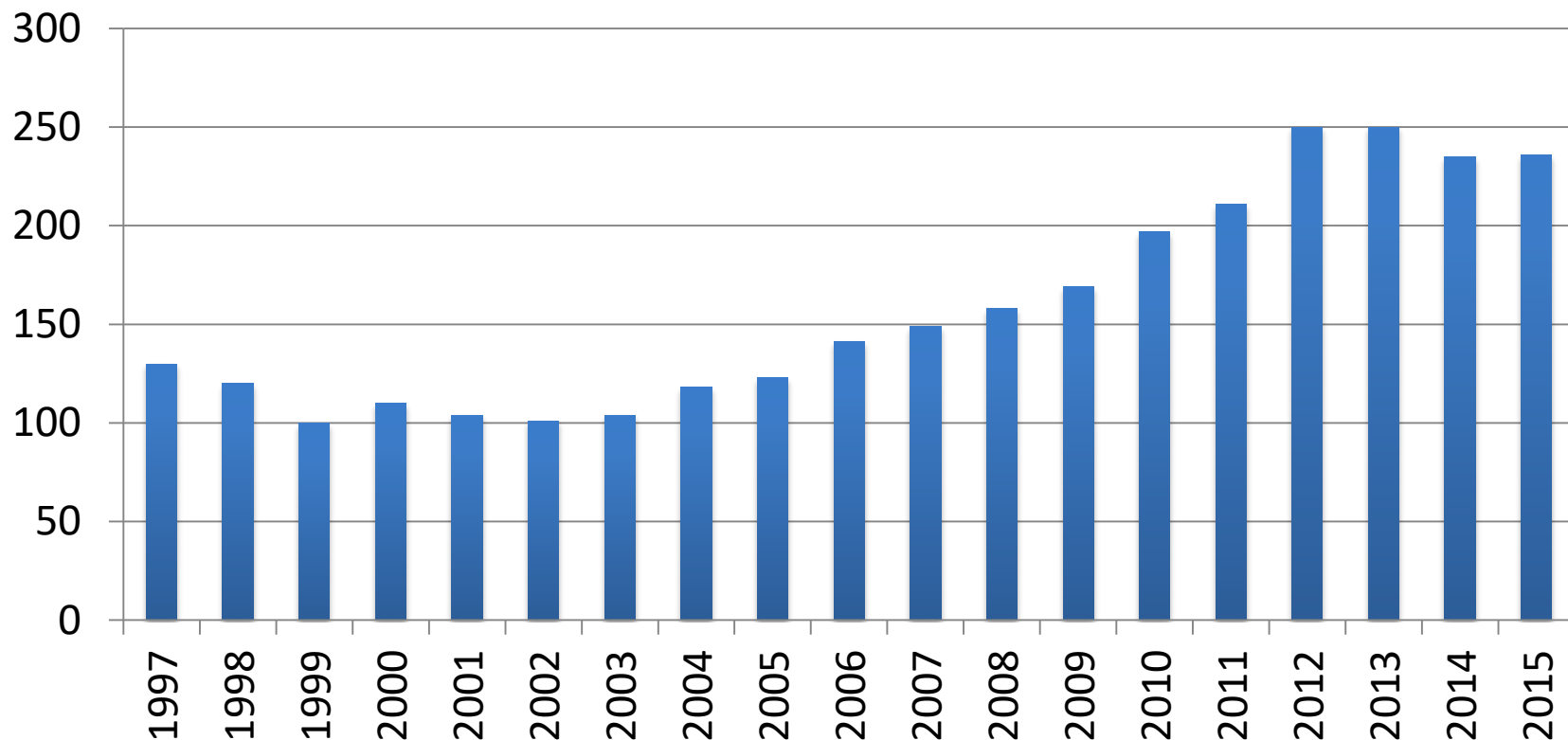
PROFIT: ECONOMIC BENEFITS

- Mining contributes growth to the local and national economy by:
 - Investing capital and re-investing profit in the country
 - Paying appropriate taxes
 - Using local goods and services
 - Generating employment in the rural areas
 - Improving physical and social infrastructure (Roads, Power & Water Systems, Buildings)



DIRECT EMPLOYMENT IN OPERATING METALLIC MINES

Employed ('000)



Operating Mines	17	17	13	12	10	94	14	16	16	17	24	23	23	28	30	36	41	43	44
Processing Plants	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	3	5	4

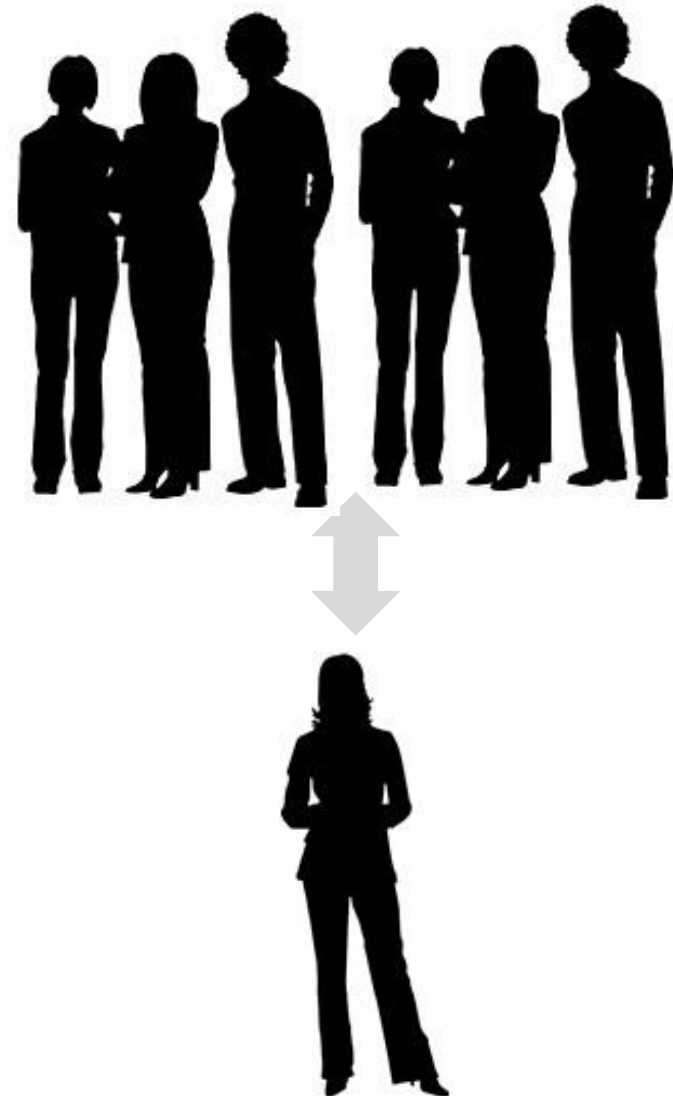


Employment Multiplier

An employment multiplier is one of the measures used to determine the impact a particular industry will have upon a municipality when it arrives or departs.

In its simplest terms, the employment multiplier measures the amount of direct, indirect and induced jobs created in the area.

The mining industry is found to have a multiplier of at least six (6) depending on the location of the operations.



Mining Allied Industries



FOUNDRY & STEEL FABRICATION



CEMENT PRODUCTION



SERVICE CONTRACTORS



CONSTRUCTION & EXPLOSIVES



SHIPPING & AVIATION



POWER & COMMUNICATIONS



FINANCE



PEOPLE: HUMAN CAPITAL

- Mining improves the quality of life in the countryside by:
 - Providing the proper infrastructure for community development (Roads, Housing)
 - Giving access to quality hospitals and healthcare
 - Bringing quality education in the uplands
 - Implementing social management and development programs based on consultation with the local communities

The Chamber of Mines of the Philippines.
Working for responsible mining.



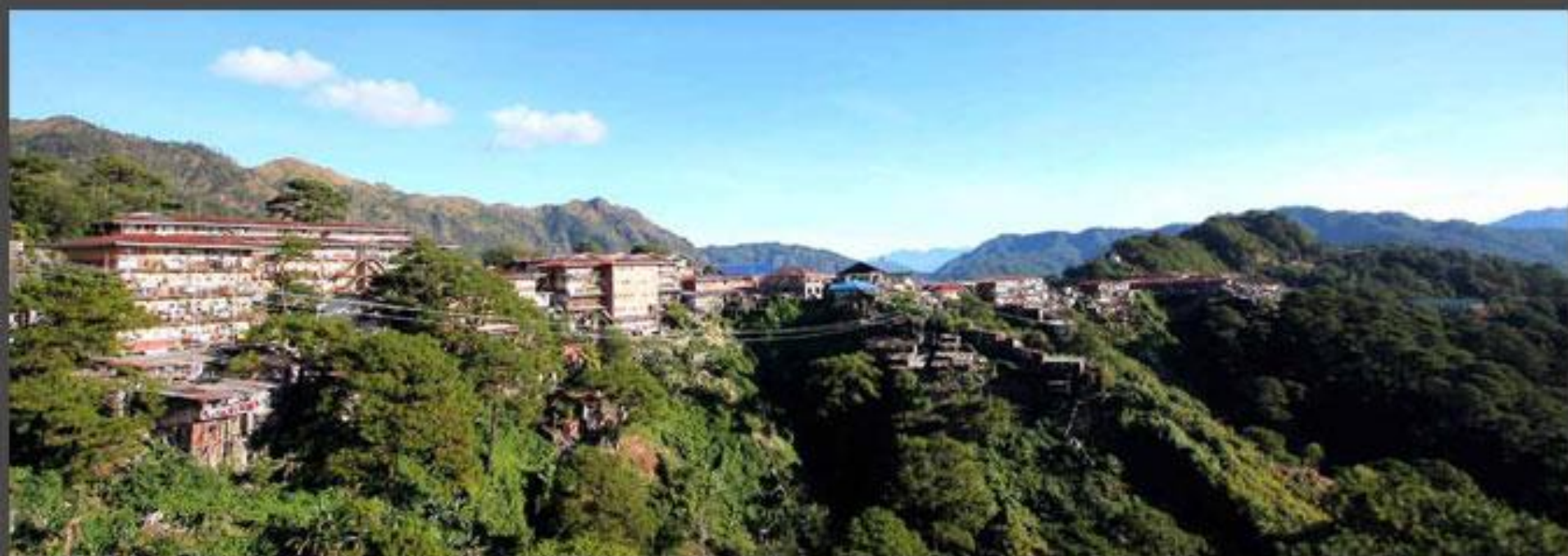
LEPANTO MINING CONSOLIDATED COMPANY MANKAYAN COMMUNITY



The Chamber of Mines of the Philippines.
Working for responsible mining.



PHILEX MINING CORPORATION PADCAL COMMUNITY





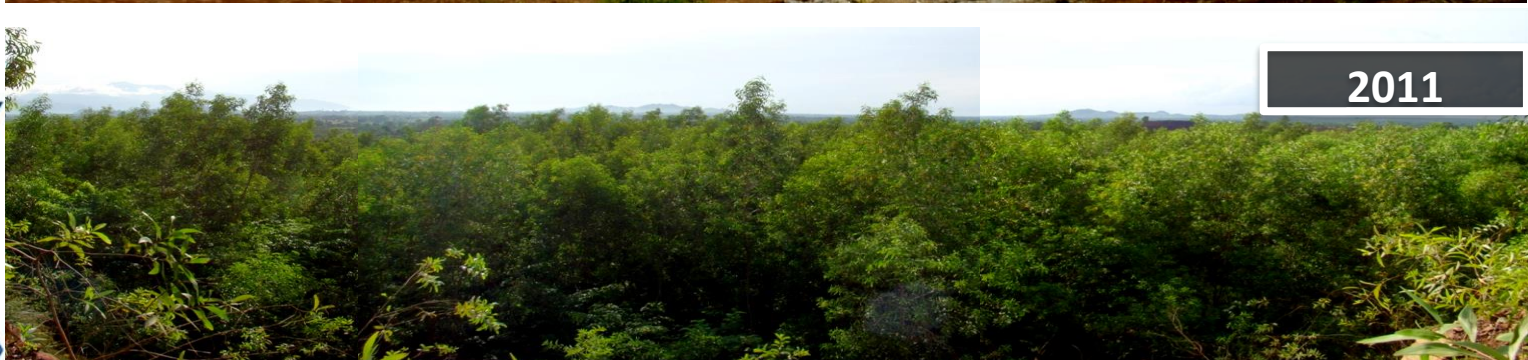
PLANET: NATURAL RESOURCE

- Mining supports the environment by:
 - Implementing best environmental practices in mining
 - Carrying out progressive mine rehabilitation
 - Building structures that prevent environmental degradation



Nickel Asia Corporation

Progressive Mine Rehabilitation



The Chamber of Mines of the Philippines.
Working for responsible mining.



LEPANTO MINING CORPORATION

TAILINGS DAM 5A



The Chamber of Mines of the Philippines.
Working for responsible mining.



PHILEX MINING CORPORATION

REHABILITATION OF DECOMMISSIONED TAILINGS DAM



THANK YOU



The Chamber of Mines of the Philippines.
Working for responsible mining.