Presentation of
Mr. Lomino N. Kaniteng

SMALL SCALE MINING IN BENGUET: TRIBAL AND MODERN
Cordillera Administrative Region
Small Scale Mining in Benguet: Tribal and Modern

by:
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President

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About LOMINO N. KANITENG

- Active miner and a mining community leader in the Province of Benguet, Philippines
- Organized 42 small scale mining associations
- Member in the government bodies such as:
  - Protected area management board of the Lower Agno River Watershed Forest Reservation (PAMB-LAWFR)
  - Provincial Mining Regulatory Board (PMRB), Benguet Province
  - Mine Rehabilitation Fund Committee of Acupau Contract Mining Project (MRFC-ACMF-BC)
  - Multipartite Monitoring Team (MMT) of Antamok Gold Operation-Benguet Corporation (MMT-BAGO-BC)
  - National Anti-Poverty Commission Cordillera Administrative Region (NAPC-CAR)
- Belongs to the Kankanaiay Ethnic Tribe of Benguet Province IPs
INTRODUCTION

1. Regulation of small-scale mining in the Philippines took effect in January 23, 1984 thru Presidential Decree No. 1899

2. Seven years later or in June 27, 1991, Congress enacted R.A. No. 7076 otherwise known as the people’s small-scale mining act of 1991

3. At present, two (2) small-scale mining laws regulating the small-scale mining industry

PD 1899 - 1st SMALL-SCALE MINING LAW

OBJECTIVES

1. To provide a legal basis for the issuance of necessary government licenses and permits; and
2. To generate employment and thereby alleviate rural poverty.

TWO FEATURES

1. Development of small mineral deposits that may be worked profitably at small tonnages with minimal capital investments and utilizing manual labor; and
2. The reservation of additional hectares beyond the permit area for expansion in the future.

REPUBLIC ACT NO. 7076 - 2nd SMALL-SCALE MINING LAW

POLICY

1. To promote, develop and rationalize viable small scale mining activities in order to generate more employment opportunities;
2. To provide an adequate sharing of the nation’s wealth and natural resources giving due regard to existing rights.

FEATURES

1. Areas already occupied and actively run by small-scale miners before August 1987;
2. Declaration of people’s small-scale mining area is subject to existing rights;
3. No PSSMA may be declared in active mining areas;
4. No PSSMA may be declared on areas under actual exploration, development, exploitation or commercial production;
5. In case an area with valid mining claim is declared as PSSMA, the claim owner is entitled to certain rights and privileges including royalty of 1.5% of the gross value of metallic mineral output or 1% of the gross value of nonmetallic mineral output.
6. It provides the establishment of a people’s small-scale mining protection fund, which is equivalent to 15% of the national government’s share of the internal revenue tax or production share due the government;
7. Provincial Mining Regulatory Board (PMRB) is the implementing arm.
LOCAL GOVERNMENT CODE OR R.A. NO. 7160

- Small-scale mining is devolved to the provincial government.

CURRENT STATUS

- IMPACT OF PD 1899
  - Only two (2) small-scale mining permits were granted to only two (2) small-scale mining associations, out of the 68 small-scale mining associations/ cooperatives with membership of approximately 13,500

- IMPACT OF R.A. NO. 7076
  - Zero impact
  - Since its passage in 1991, not a single area has been declared as peoples' small-scale mining area or minahang bayan in the Province of Benguet

BARRIERS FOR LEGALIZATION UNDER THE TWO SMALL-SCALE MINING LAW

- Presence of large mining concessions
- Reservations and protected areas
- Surface land ownerships
- Ancestral lands
SMALL SCALE MINING PRACTICES

TRADITIONAL
1. Subsistence
2. Individual or family group
3. Rely on manual labor using pick and shovel
4. No capital investments

MODERN
1. Business enterprise
2. Grouped into association or cooperatives
3. Rely on manual labor using equipment
4. Needs capital investments

SMALL SCALE MINING PRACTICES

ARTISANAL
1. Open cost
2. Shallow underground
3. Limited size or shape of adits

MECHANICAL
1. Open cost
2. Deep underground
3. Wider size and shape of adits

SMALL SCALE MINING PRACTICES

LEGAL
1. Issued small-scale mining permit
2. Miners are regulated on:
   • Environmental laws
   • Mining activities
3. Render quarterly report
4. Registered as licensed small-scale miner

ILLEGAL
1. No permits
2. No regulation
3. Cannot access capital borrowings
4. Tolerance
SMALL SCALE MINING PRACTICES

**FORMAL**
1. Pay excise tax
2. Sell gold to BSP/accredited traders
3. Financial support from LGUs/NGOs
4. SSS members

**INFORMAL**
1. Do not pay excise tax
2. Sell gold to accredited gold buyers on BSP
3. No financial support from LGUs/NGOs
4. SSS Members

POSITIVE IMPACT OF SMALL SCALE MINING

1. Increase of small-scale mining associations
2. Presence of many migrants
3. Out of school youths turned as small-scale miners
4. Increased CIP/CIL plants
5. Farmers shifting to small-scale mining
6. Increase in gold productions
7. Spur economic activities
8. Generate labor employment
9. Women participation

NEGATIVE IMPACT OF SMALL SCALE MINING

1. Creates environmental problems.
2. Safety, health and sanitation problems
3. Failure of some mining associations in policing their own members with criminal records and pending criminal cases
4. Illegal logging
5. Minors engage in the industry
<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>TRIBAL/TRADITIONAL</th>
<th>MODERN/MECHANIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mining Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Small-scale mining</td>
<td>For subsistence</td>
<td>For business enterprise</td>
</tr>
<tr>
<td></td>
<td>Miners are either individuals or family groups</td>
<td>Miners grouped into bigger groups or associations/cooperatives</td>
</tr>
<tr>
<td></td>
<td>Open cast or quarrying</td>
<td>Open cast or quarrying</td>
</tr>
<tr>
<td></td>
<td>Underground with small adits measuring 4.0 feet x 3.0 feet and short distance</td>
<td>Underground with a bigger adit measuring 5 feet by 4.0 feet with unlimited distance</td>
</tr>
<tr>
<td>1.2 Mining Equipments and Utensils</td>
<td>Pick and shovel</td>
<td>Fabricated trackless mine cars or wheel-borrows</td>
</tr>
<tr>
<td></td>
<td>Carbide lamp</td>
<td>Pick and shovels</td>
</tr>
<tr>
<td></td>
<td>Moils and pinch bars</td>
<td>Moils and pinch bars</td>
</tr>
<tr>
<td></td>
<td>Sledge hammer</td>
<td>Ropes and pulleys</td>
</tr>
<tr>
<td></td>
<td>Sample Pan</td>
<td>Miners lamp and hard hat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blowers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water pumps and siphons</td>
</tr>
<tr>
<td>1.3 Development</td>
<td>Development workings are avoided by directly following vein or veinlets structures</td>
<td>Wider scope of development workings</td>
</tr>
<tr>
<td>1.4 Underground Ventilation</td>
<td>Underground workings are ventilated naturally as adits are short distance</td>
<td>Underground workings are provided with blower especially so when adits are long distance</td>
</tr>
<tr>
<td>1.5 Underground Supports</td>
<td>No support loose grounds are abandoned</td>
<td>Only loose sections of the tunnel are provided with timbers</td>
</tr>
<tr>
<td>1.6 Ore Extraction</td>
<td>Ore extraction is done by following the veins or veinlets</td>
<td>Ore extraction is done by following the veins or veinlets</td>
</tr>
<tr>
<td>ACTIVITIES</td>
<td>TRIBAL/TRADITIONAL</td>
<td>MODERN/ELECTRANIZED</td>
</tr>
<tr>
<td>------------</td>
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<tr>
<td>2. Milling Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Crushing</td>
<td>Crushing is done manually with sledge hammer and rubber rings to avoid splintering. Ores are crushed to about 3/4 inch.</td>
<td>Miners use jaw crusher to crush the ores</td>
</tr>
<tr>
<td>2.2 Milling and Grinding</td>
<td>Miners use &quot;Alinteg&quot; and &quot;Ga-idan&quot; to grind the ores</td>
<td>Miners use fabricated rod mills run by motors</td>
</tr>
<tr>
<td>2.3 Gold concentration and recovery</td>
<td>Use the &quot;Sabak&quot; an instrument to recover the free gold and the tailings discarded (by experience 30-40% is free gold while 70-50% still with the tails)</td>
<td>Miners use sluice box to recover the free gold. Tailings are kept for processing thru leaching, or CIP/CIP</td>
</tr>
<tr>
<td>2.4 Gold Bullion</td>
<td>Melting of the free gold is done by using crucibles, blower, charcoal and borax</td>
<td>For free gold recovered by the same procedure is applied by melting the free gold or dust gold by using the crucible, charcoal, borax and blower. Gold buttons in different sizes</td>
</tr>
<tr>
<td>2.5 Gold refining</td>
<td>Not purified</td>
<td>Refining gold bullion into increase gold purity and at the same time recover its silver contents</td>
</tr>
<tr>
<td>3. Marketing</td>
<td>Gold buttons of different sizes are sold to any of the 50 BSP accredited gold buyers (traders) all stationed in Baguio City</td>
<td>Gold buttons of not less than 300 grams rectangular and circular shape are sold to BSP</td>
</tr>
</tbody>
</table>
DARK SIDES OF SMALL-SCALE MINING

1) Low production due to non-use of explosives (not allowed by law)
2) Low recovery and cannot deal with complex metallurgy
3) Lack of safety, health and sanitation
4) Neglect quality control
5) Have poor maintenance facilities
6) Have low capital availability
7) Cannot fully address environmental problems
8) Difficult in capital access

BRIGHT SIDES OF SMALL SCALE MINING

1) Provide a labor pool for large mines

Example:
FIRST SCHEME: AGUPAN AREA
Small-scale mining association as service contractor for Benguet Corporation on a 60-40% sharing

40% - Benguet Corporation
60% - Small-Scale Mining Association

Note: 60% share of small-scale mining association are process at the company's mill on rental basis, on the part of the service contractor

SECOND SCHEME: ANTAMOK AREA
For small-scale miners to work at Benguet Corporation's tunnel, the fee is P15.00 miner per day and bring home their ore production

2) Can mine small deposits
3) Can mine where only labor-intensive methods are possible
4) Can start operation faster
5) Can work in IPs occupied areas
6) Require less infrastructures
7) Create fewer environmental problems
8) Be able to work on a seasonal basis and slot in with labor demands of agriculture and other forms of activities
9) General labor employment
10) An effective instruments in poverty alleviation particularly in the rural areas.
FUTURE PLANS AND DIRECTIONS OF SMALL-SCALE MINING

1) Elevate the status of small-scale miners from mere subsistence to business enterprise

2) Strengthened capacity of the sector to manage and protect their resources, rights and welfare in a sustainable manner

3) Improved and increased access to social protection schemes and productive resources

4) Improved recognition and participation of the sector to the local and national planning bodies

5) Improved security and protection at work places

6) Should be environmentally clean and safe

7) To curb illegal small scale mining and illegal trading of metals and mineral products

8) To stop supply of gold to the black market

9) To contribute substantially in the development of communities, local governments and the economic growth of the country in general
<table>
<thead>
<tr>
<th>SMALL SCALE MINING</th>
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</thead>
<tbody>
<tr>
<td><strong>TRIBAL</strong></td>
</tr>
<tr>
<td>- Subsistence</td>
</tr>
<tr>
<td>- Self-employment</td>
</tr>
<tr>
<td>- Very small volume of gold production</td>
</tr>
<tr>
<td>- Sold to accredited/non-accredited gold buyers</td>
</tr>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2003</td>
</tr>
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<td>2004</td>
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</table>
### SUMMARY

<table>
<thead>
<tr>
<th>Players</th>
<th>Year</th>
<th>Production Qty</th>
<th>Production Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Kilos</td>
<td>Tr. Oz.</td>
</tr>
<tr>
<td>ACMP</td>
<td>2002</td>
<td>17.00</td>
<td>599.65</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>64.00</td>
<td>2,257.50</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>63.40</td>
<td>2,236.33</td>
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<tr>
<td>PMC</td>
<td>2002</td>
<td>3,851.00</td>
<td>135,837,742.5</td>
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<tr>
<td></td>
<td>2003</td>
<td>2,665.00</td>
<td>101,058,201.1</td>
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<tr>
<td></td>
<td>2004</td>
<td>2,270.70</td>
<td>80,377,425.0</td>
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<tr>
<td>LCMCO</td>
<td>2002</td>
<td>3,562.00</td>
<td>125,643,739.0</td>
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<tr>
<td></td>
<td>2003</td>
<td>2,781.00</td>
<td>98,095,228.1</td>
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<tr>
<td></td>
<td>2004</td>
<td>2,618.50</td>
<td>92,363,315.7</td>
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<tr>
<td>SSM</td>
<td>2002</td>
<td>2,425.63</td>
<td>86,560,141.0</td>
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<tr>
<td></td>
<td>2003</td>
<td>2,941.78</td>
<td>103,766,490.3</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>3,246.98</td>
<td>114,531,922.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>26,714.96</td>
<td>942,339,230.8</td>
</tr>
</tbody>
</table>

**Legend:**
- ACMP = Acupan Contract Mining Project
- PMC = Philex Mining Corporation
- LCMCO = Lepanto Consolidated Mining Company
- SSM = Small-Scale Miners (Traders)
- Source = BSP-Baguio

### ECONOMIC PERFORMANCE OF SAND & GRAVEL PERMITTEES

**BENGUEAT PROVINC**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>UNIT</th>
<th>QTY</th>
<th>VALUE (PHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>cu. m.</td>
<td>389,069</td>
<td>19,636,608.00</td>
</tr>
<tr>
<td>2003</td>
<td>cu. m.</td>
<td>108,126</td>
<td>14,366,392.00</td>
</tr>
<tr>
<td>2004</td>
<td>cu. m.</td>
<td>53,371</td>
<td>111,632.75</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>550,556</td>
<td>34,114,532.75</td>
</tr>
</tbody>
</table>

**SOURCE:** MGB-CAR
FACTORS THAT WILL SHAPE THE FUTURE OF SMALL-SCALE MINING INDUSTRY

- Government support to small scale mining
  - Amend and consolidate the small-scale mining laws (PD 1899 and RA No. 7076)
  - Investment climate
  - Image on small-scale mining

- Small-scale miners commitment to best practice and sustainable development

CONCLUSION

- Highest leadership of the land giving full support through its policy shift from “Tolerance to Promotion”

- For the province to legislate small-scale mining code
ACKNOWLEDGMENT

To Dir. Neoman B. dela Cruz, MGB-CAR Regional Director, Engr. Felizardo Gacad, Chief, Mining, Environment and Safety Division and Engr. Eduard M. Austria Mining Operation Officer for providing the needed records.

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To the head of the Bangko Sentral ng Pilipinas, Baguio Branch for providing the necessary data of the production of large mines and small-scale miners (Traders).

To Ms. Vivian Romero of the MGB-CAR for the research.

To the members and officers of the various mining associations who have accorded their valuable time in providing the needed informations.

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