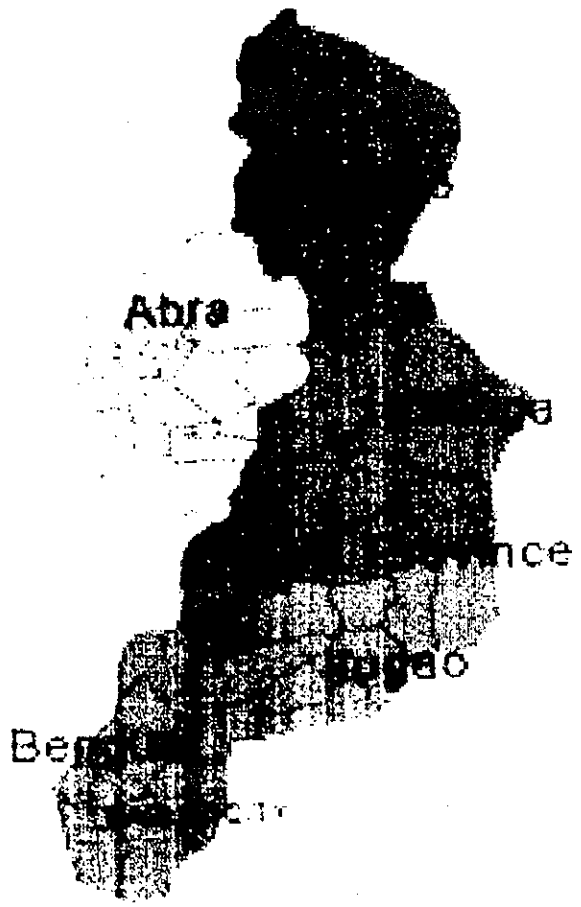


*Presentation of
Mr. Lomino N. Kaniteng*

**SMALL SCALE
MINING IN BENGUET:
TRIBAL AND MODERN**



Cordillera Administrative Region





**Small Scale Mining in Benguet:
Tribal and Modern**

by:
Lomino N. Kaniteng
President

**IGOROT SMALL SCALE MINERS AND
PANNERS FOUNDATION, INC.**
876 Midas, Ucab, Itogon
Benguet, Philippines
E-Mail: lomlnus_khan@yahoo.com



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 Acupan Contract Mining Project (MRFC-ACMP-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 Kankanaey 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 maybe 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 nations 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 claimowner 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 license 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

- ☞ Increase of small-scale mining associations
- ☞ Presence of many migrants
- ☞ Out of school youths turned as small-scale miners
- ☞ Increased CIP/CIL plants
- ☞ Farmers shifting to small-scale mining
- ☞ Increase in gold productions
- ☞ Spur economic activities
- ☞ Generate labor employment
- ☞ Women participation



NEGATIVE IMPACT OF SMALL SCALE MINING

- ☞ Creates environmental problems.
- ☞ Safety, health and sanitation problems
- ☞ Failure of some mining associations in policing their own members with criminal records and pending criminal cases.
- ☞ Illegal logging.
- ☞ Minors engage in the industry



SMALL-SCALE MINING PRACTICES

ACTIVITIES	TRIBAL/TRADITIONAL	MODERN/MECHANIZED
1. Mining Practices		
1.1 Small-scale mining	<ul style="list-style-type: none">↳ For subsistence↳ Miners are either individuals or family groups↳ Open cast or quarrying↳ Underground with small adits measuring 4.0 feet x 3.0 feet and short distance	<ul style="list-style-type: none">↳ For business enterprise↳ Miners grouped into bigger groups or associations, cooperatives↳ Opencast or quarrying↳ Underground with a bigger adit measuring 5 feet by 4.0 feet with unlimited distance
1.2 Mining Equipments and Utensils	<ul style="list-style-type: none">↳ Pick and shovel↳ Carbide lamp↳ Moils and pinch bars↳ Sledge hammer↳ Sample Pan	<ul style="list-style-type: none">↳ Fabricated trackless mine cars or wheel-borrows↳ Pick and shovels↳ Moils and pinch bars↳ Ropes and pulleys↳ Miners lamp and hard hat↳ Blowers↳ Water pumps and siphons
1.3 Development	<ul style="list-style-type: none">↳ Development workings are avoided by directly following vein or veinlets structures	<ul style="list-style-type: none">↳ Wider scope of development workings
1.4 Underground Ventilation	<ul style="list-style-type: none">↳ Underground workings are ventilated naturally as adits are short distance	<ul style="list-style-type: none">↳ Underground workings are provided with blower especially so when adits are long distance
1.5 Underground Supports	<ul style="list-style-type: none">↳ No support loose grounds are abandoned	<ul style="list-style-type: none">↳ Only loose sections of the tunnel are provided with timbers
1.6 Ore Extraction	<ul style="list-style-type: none">↳ Ore extraction is done by following the veins or veinlets	<ul style="list-style-type: none">↳ Ore extraction is done by following the veins/veinlets



ACTIVITIES	TRIBAL/TRADITIONAL	MODERN/ECHANIZED
2. Milling Practices		
2.1 Crushing	↳ Crushing is done manually with sledge hammer and rubber rings to avoid splintering. Ores are crushed to about ¼ inch.	↳ Miners uses jaw crusher to crush the ores
2.2 Milling and Grinding	↳ Miners use "Alinteg" and "Ga-dan" to grind the ores	↳ Miners use fabricated rod mills run by motors
2.3 Gold concentration and recovery	↳ Use the "Sabak" an instrument to recover the free gold and the tailings discarded (by experience 30-40% is free gold while 70-80% still with the tails)	↳ Miner use sluice box to recover the free gold ↳ Tailings are kept for processing thru leaching, or CIP/CIP
2.4 Gold Bullion	↳ Melting of the free gold is done by using crucibles, blower, charcoal and borac ↳ Gold-buttons in different sizes	↳ For free gold recovered same procedure is applied by melting the free gold or dust gold by using the crucible, charcoal, borax and blower ↳ Gold buttons in different size
2.5 Gold refining	↳ Not purified	↳ Refining gold bullion into increase gold purity and at the same time recover its silver contents
3. Marketing	↳ Gold buttons of different sizes are sold to any of the 50 BSP accredited gold buyers (traders) all stationed in Bagulo City	↳ Gold buttons of not less than 300 grams rectangular and circular shape are sold to BSP



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: ACUPAN 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

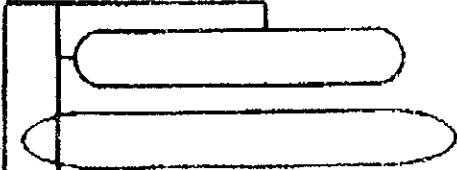
For small-scale miners to work at Benguet Corporation's tunnel, the fee is P15.00/miner per day and bring home their ore production

- 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.



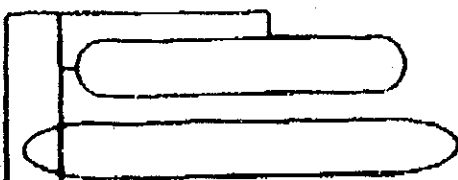
FUTURE PLANS AND DIRECTIONS OF SMALL-SCALE MINING

- 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

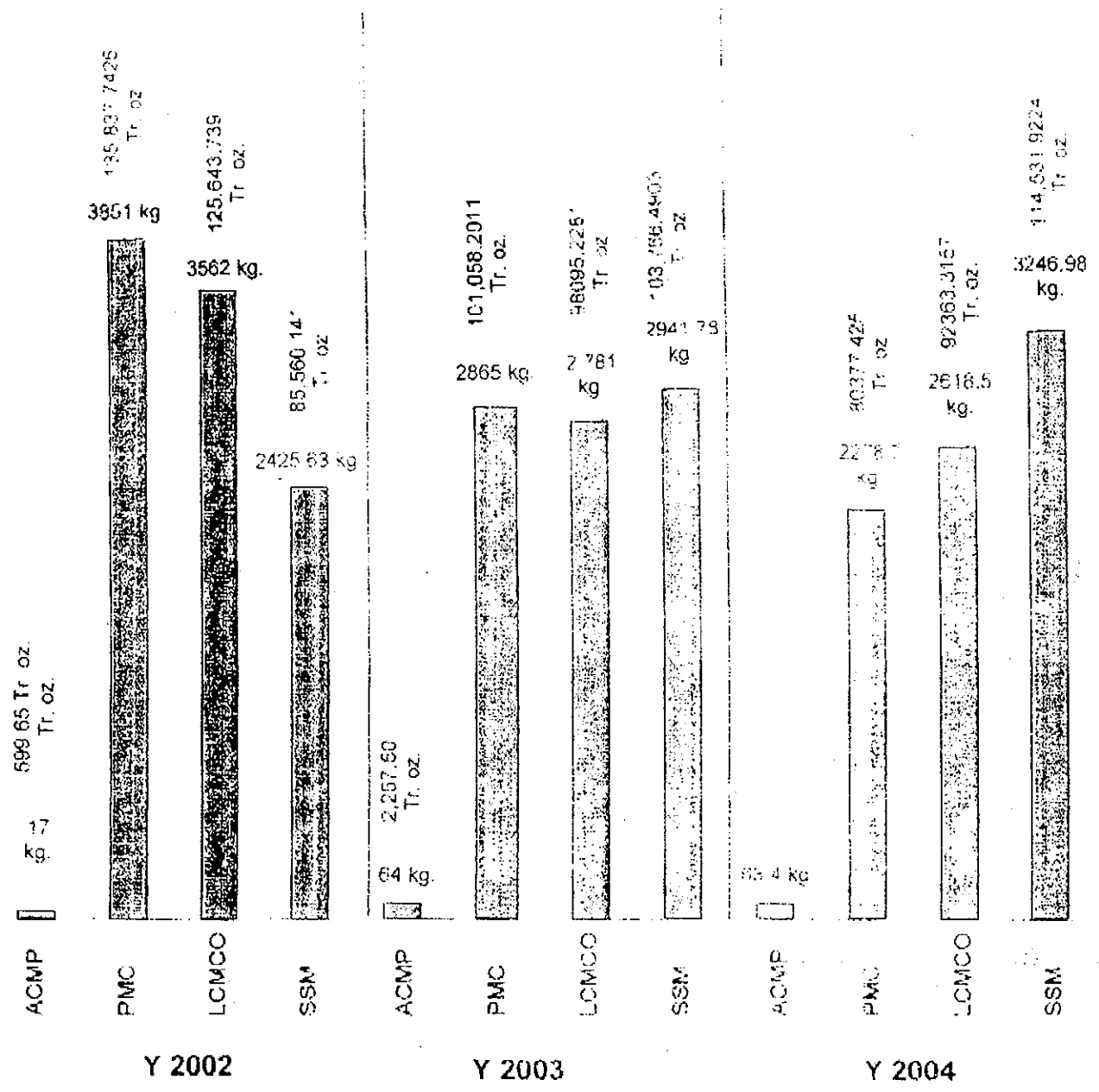


SMALL SCALE MINING

	TRIBAL	MODERN / MECHANIZED
Y	Subsistence	Business enterprise
Y	Self-employment	Generate employment
Y	Very small volume of gold production	Medium/big volume of gold production
Y	Sold to accredited/non-accredited gold buyers	Sold to accredited gold buyers or to BSP



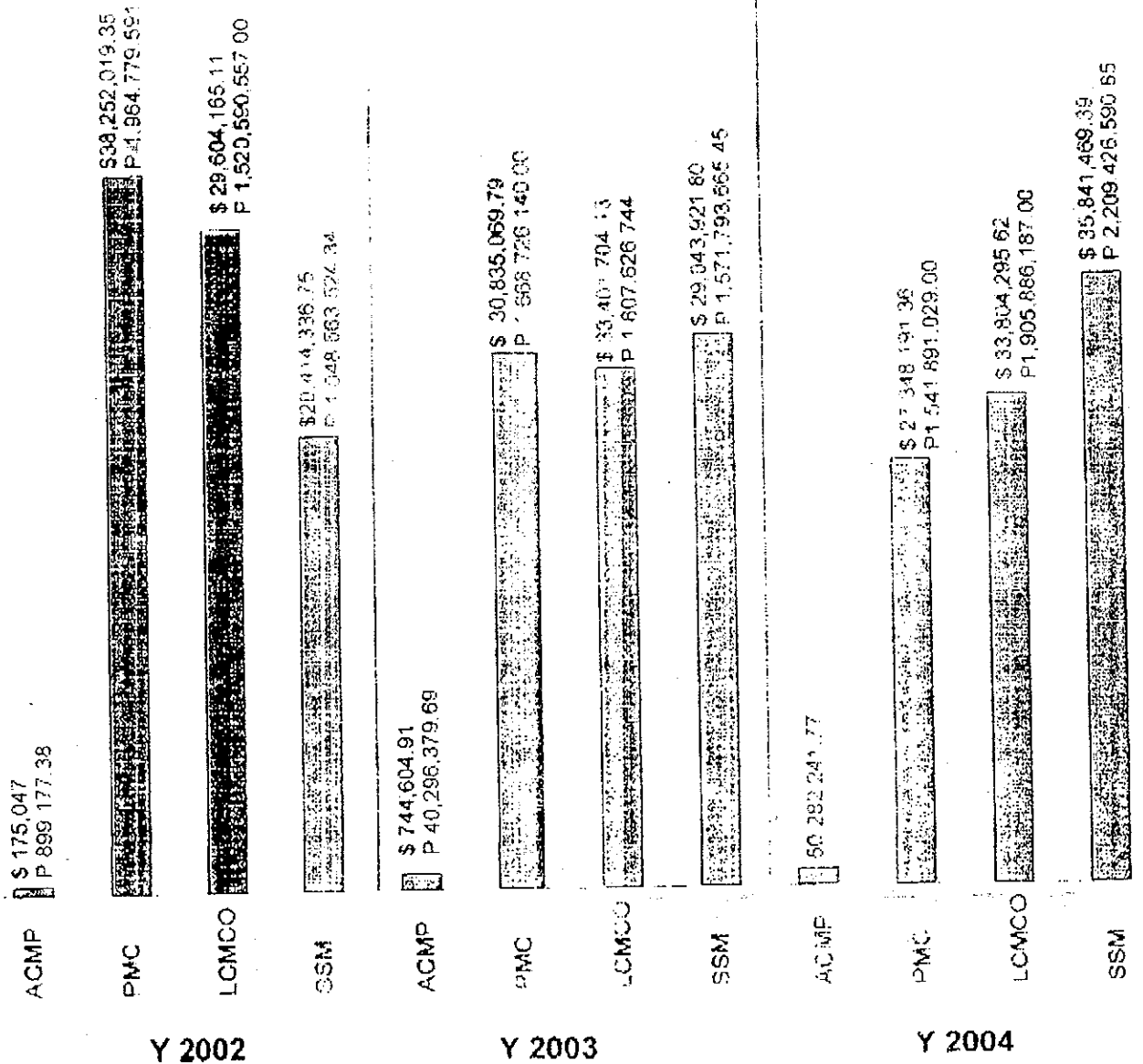
ECONOMIC PERFORMANCE AND SMALL-SCALE MINING VERSUS LARGE MINING PRODUCTION QUANTITY



Legend:

- ACMP ■ Acupan Contract Mining Project
- PMC ■ Philex Mining Corporation
- LCMCO ■ Lepanto Consolidated Mining Company
- SSM ■ Small-Scale Miners (Traders)
- Source ■ BSP-Baguin

ECONOMIC PERFORMANCE OF SMALL-SCALE MINING VERSUS LARGE MINING PRODUCTION VALUE



Legend:

- ACMP # Acupan Contract Mining Project
- PMC # Philex Mining Corporation
- LCMCO # Lepanto Consolidated Mining Company
- SSM # Small-Scale Miners (Traders)
- Source # BSP-Baguit

SUMMARY

Players	Year	Production Qty		Production Value	
		Kilos	Tr. Oz.	Php	US \$
ACMP	2002	17.00	599.65	899,177.38	175,047.00
	2003	64.00	2,257.50	40,286,379.69	744,604.91
	2004	<u>63.40</u>	<u>2,236.33</u>	<u>50,282,241.77</u>	<u>891,845.37</u>
	Sub-total	144.40	5,193.48	90,467,808.84	1,811,497.28
PMC	2002	3,851.00	135,837,7425	1,964,779,591.00	38,252,019.35
	2003	2,865.00	101,068,2011	1,668,726,140.00	30,835,069.79
	2004	<u>2,278.70</u>	<u>80,377,425</u>	<u>1,541,891,029.00</u>	<u>27,348,191.36</u>
	Sub-total	9,094.70	317,283,3691	5,175,396,760.00	106,435,289.50
LCMCO	2002	3,562.00	125,643,739	1,520,590,557.00	29,604,165.11
	2003	2,781.00	98,095,2281	1,807,626,744.00	33,401,704.13
	2004	<u>2,618.50</u>	<u>92,363,3157</u>	<u>1,905,886,187.00</u>	<u>33,804,295.62</u>
	Sub-total	9,061.50	316,102,2857	5,234,103,488.00	96,810,164.86
SSM	2002	2,425.63	85,560,141	1,048,563,524.34	20,414,336.75
	2003	2,941.78	103,766,4903	1,577,793,665.46	29,043,921.80
	2004	<u>3,246.98</u>	<u>114,531,9224</u>	<u>2,209,426,590.94</u>	<u>35,841,469.39</u>
	Sub-total	8,614.39	303,858,5568	5,835,783,780.74	115,300,727.94
GRAND TOTAL		26,714.99	942,328,2303	15,330,761,827.44	280,458,670.58

Legend:

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

ECONOMIC PERFORMANCE OF SAND & GRAVEL PERMITTEES BENGUET PROVINCE

YEAR	UNIT	QTY.	VALUE (PHP)
2002	cu. m.	389,069	19,636,608.00
2003	cu. m.	108,126	14,366,392.00
2004	cu. m.	53,371	111,632.75
TOTAL		550,566	34,114,632.75

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

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