TRADITIONAL SMALL-SCALE MINERS: CURRENT ISSUES AND IMPACT ON OUR CULTURE.

Nena Liyo
Itogon Municipality
Philippines

Paper presented at a workshop on ‘Community and State Interests in Small-Scale Mining: Sharing Experiences from the Asia-Pacific Region’ Manila, 7-12 June 2005.

Abstract
As women traditional small-scale miners we participate in the pursuit of sustainable livelihoods and poverty alleviation by working with our men in mining and in the sharing of the minerals within our community. This paper explains that while our traditional technology has integrated modern technology our various sharing mechanisms and our respect for traditional values are projected in our activities and our culture as miners.

As a community, while the Government of the Philippines has recognized our domains as indigenous people, we also give reasons as to why the State needs to recognize areas of communal mining such as ours, including our efforts in our attention to safety in work and in the preservation of our watershed.

Introduction
Studies and research on small-scale mining has been identified with the colonisation of the country by the Chinese, Spaniards and Americans. In 1991, Dr. Evelyn J. Caballero, an anthropologist conducted research on traditional small-scale mining at Dalicno, Itogon, a community of Kankanaeys belonging to an indigenous group in the Cordilleras.

In one aspect of her study, she found tools and equipment associated with small-scale mining in an archeological site located very close to Dalicno. Based upon her analysis this archaeological site pre-dates the occupation of Dalicno by small-scale miners.

This presenter will confine her topic to traditional small-scale mining particularly at Dalicno, Itogon where I was nurtured since I was a child as a traditional small-scale miner.

Historical Background
As told by one of the pioneers of Dalicno, traditional small-scale mining started when a team of Chinese explorers who were heading for Kalinga made a stop-over at Mankayan where the Kankanaeys had settled. In the absence of a stove for cooking, they gathered three stones and used them as stove. To their surprised, when the stones were heated, they were covered with minerals that were determined to be copper and gold. The Chinese, traders as they are, opted for bulk production of these
minerals for export to other countries, so they taught the Kankanaeys in the place how to process the ore stones to produce copper and gold.

During the American period, the Kankanaeys migrated to other places. They went first to Tuding then to Dalicno bringing with them the knowledge and skill of small-scale mining.

Kankanaeys are by nature superstitious and believe in the existence of deities. They believe that the spirits of their dead and these deities are guardians of their work areas thus integrating their beliefs, customs and traditions in their ways of living and working. Hence, the start of traditional small-scale mining.

**Traditional Practices**

Elders are the unifying forces in the small-scale mining industry. The wisdom of an elder man "Panglakayen" is sought before a tunnel is open. The killing of a chicken is the deciding factor. The elder man offers the chicken to the deities of the worksite identified and when the chicken is opened, the elder man will inspect the bile. If the bile is prominently visible, the worksite will be productive but if bile is covered by the liver, the site will not be productive.

At times when tunnels become unproductive, the operator will offer a pig to appease the "Tomongao", a good or bad luck deity. If the whole community is to make an offering, the ritual "Dantey" is performed, where the men play the gongs and the women dance partnered by the men. Men do the butchering, cooking and distribution of cooked meat while the women do the rice cooking, serving and dishwashing.

In all rituals performed, a strict watch of animals urinating or having sex within the ritual area is observed. If this happens, the whole ritual is repeated. For a husband and wife performing the ritual, it is likewise taboo to have sex until they wash their faces with water prayed over by an elder man the following day.

Death in the community, especially during burials, suspends all tunnel work until the bereaved family performs the "lawit". a ritual where a pig is offered and the "Panglakayen" calls the name of the members of the family to gather the frightened spirits of the bereaved family.

After a few days, the community will perform the "Pakde", a ritual which compels every household to contribute an agreed amount for the purchase of a pig to be offered before work will be resumed in all tunnels. This is done in the evening where every household is expected to keep their fireplace burning through the night and if a household fails, the ritual will be repeated.

Internal rules and regulations are set up by the elder men for operators, suppliers, workers and those involved in "sagaok". All parties have to abide by the decisions of the elders or be ostracized, ridiculed or fined one pig. If the offender is a visitor, he is send out of the community.
Processing

Men do the extracting of ore from the adits of the tunnels and the women do most of the processing of the gold ore and concentrates. However, women also mine.

The men crush the big ore to small particles with iron hammers. The ore is further crushed on the surface of a wide rock called "alintegan" which is either placed level to the ground or in an elevated position called "gaidan". The grinding is done with the use of a round stone called "alinteg" manipulated by either the hands or the feet. The grainy particles will again be ground using one or more small stones pushed by women until a desired powdered form is attained.

This powdered form of concentrate is placed in a basin with water along with the use of a "sabak" (separator). The women separate the gold grains from the pyrites and concentrates. Gold grains recovered are wrapped with a paper bag, sprinkled with borax and then put in an earthenware crucible placed over a heated furnace. It is then covered with red burned charcoal and smelted using a hand blower until a gold bead is formed. This gold bead is weighed on a balance scale and a woman supplier sells it to local dealers or in the city. The men do the accounting of the share of each worker and the woman do the distribution of the income separating the share for supply and do the marketing for the next working period.

Another mining activity is placer mining. This is done by men and women along river beds during the dry season. Tools used are: a sluice box made of wood or G.I. sheets, sample pan, hairy sacks, iron bars, coconut shells, and containers.

Placer miners identify their work site using a sample pan. Upon establishing a work site, a wall channel is built with floodgates called "kaangs". The sluice box is draped with a hairy sack underneath a screen fitted in the sluice box to catch the gold particles and pyrites and is placed at the end of the "Kaang". The iron bars and coconut shells are used to loosen the gold bearing sand and scrap it towards the sluice box. At the end of the day, the sack is washed in a basin and brought home for further processing using the "gaidan" and "sabak" in the recovery of the gold grains.

Placer mining is seasonal considering that this can only be done during the dry season while during the wet season the men and women go for lode mining and "sagaok".

At present, placer mining is a double compensation activity considering that recovered sand and gravel are also sold to individuals and contractors aside from the recovery of gold grains.

Sharing

What makes traditional scale miners unique from other small-scale miners is their value of sharing.

Men mine the ore from the adit of the tunnels. Women and children do the "sagaok". They go around to tunnels and distribute their sacks that are to be filled with ore sharing what they extract from the adits. These are collected at the end of the day and the gold ore is separated from the mine waste called "muilock".
As explained earlier, the women do the grinding of the crushed ore until its desired powdered form. The supplier scopes it into a basin leaving a portion for the women to equally share among themselves using a spoon. This is now called "ilos".

In the separation process, pyrite near the gold grains is shared to elder women only. This is called "duyos". The concentrate is molded into ball like shapes and distributed equally among all present and sick elder women are also given a share. This activity is called "makilinang".

During the distribution of income to the workers by the supplier, men and women present are given "balato" by the workers or by the suppliers.

Taboos
The cooking and eating of offensive foods like the meat of dogs, cows, oats, ducks and foul smelling foods are prohibited inside and outside the working area. Recommended foods are meat, legumes and green leafy vegetables.

A no working policy is enforced during rituals and burials.

Concerns
The following are areas of concern for traditional small-scale miners:

- Areas good for small-scale mining are leased holdings of big companies.
- Influx of migrants from different provinces due to inter-marriages or affiliations and who practice new forms of mining using chemicals like cyanide and mercury
- The diminishing forest due to burning and illegal cutting of trees that affects the timbering of tunnels.
- Mass environmental destruction due to the inefficient supervision and implementation of laws and Executive Orders by DENR.
- There are also provisions in R.A. 7076 that are unreasonable to the traditional small-scale miners considering that the law assumes one to have a lot of capital. R. A. 7079 was strongly resisted through petitions and position papers.
- The IPRA law is good for indigenous people but due to ethnolinguistic affiliations, it is causing divineness among the Ibaloy and Kankanaeys over time, through he IPRA laws states that indigenous peoples in these areas have the right to their ancestral domain and ancestral land areas.
- Big companies are still holding their rights over their mines although operations have stopped and they are now engaged in contractual small-scale mining using the percentage sharing system.
- In the gold processing of the big company's share, women traditional small-scale miners are hired to do the recovery using the traditional way and they are paid a daily wage. The women who are not hires are allowed to help in the flushing of the ore concentrates and are given the concentrate tailings to equally divide among them.
- Abandoned and unexploited tunnels should be awarded as working areas for the traditional small-scale miners and are not to be bided to outside contractors and migrant workers.
Environmental Concerns
In terms of degradation of environment, big companies have stopped operations but have allowed gold rush miners to mine below roads and built up areas, causing cave-ins and erosion along the road. There are also improper disposal of treated tailings along roads and opened spaces. Cutting of trees without replacement is also a problem.

Health Concerns
The use of cyanide which increases the incidence of suicide, kills animals, pollutes drainages and other waste systems. Use of mercury causes skin diseases and other internal problems. Overcrowding of men and women inside tunnels exposes them to pulmonary diseases.

Values Concern
Inter-marriage of traditional small-scale miners with outsiders that have a different upbringings ha a great impact on the traditional values of couples in terms of taboos and abstinence in mining. Elders are not priorities in the sharing of the ‘ilos’, ‘duyos’ and concentrates. However, of the 406 households, 43 per cent are traditional small-scale miners who adhere to the processing and mining incorporating the customs and traditions and do not use chemicals in the recovery of gold grains. The other 57 per cent do mining and processing incorporating new methods that are mechanised and recover more gold grains from the gold ore. Others are those professionals doing their vocation, employed in the country or abroad and the rest are aboard employed as helpers.

‘Sagaok’ which was for woman’s concern in the early days is now infiltrated by men.

Opportunities for Constructive Action
- Need for the repeal of R. A. 7076 to address the real concerns of traditional small-scale mining, gold rush mining and contractual mining.
- The provisions of the IPRA law on ancestral domain and ancestral areas should be sustained and implemented.
- Educational assistance to children of small-scale miners.
- Built up areas in the mining claims of big companies either patented or leased should be excluded from the mineral claims of individuals, groups or big companies.
- Need for capital to finance traditional small-scale mining livelihoods projects, small-scale loan assistance through an organised cooperative.
- Need for traditional small-scale mining all-purpose hall of assemblies, meetings, trainings, and other social activities.
- Need for a legal consultant involving mining on the level of small-scale mining.