

METHODOLOGY FOR THE CHARACTERIZATION OF INFORMAL MINING IN PERU¹

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ABSTRACT

Informal mining is performed without possessing the mining rights or performing mining activities in land owned by a third-party. In Perú, approximately 60 000 families are currently involved and depend on this illegal activity. The people involved in the activities surrounding informal coal mining work without the appropriate production technologies, health and safety measures and environmental management practices.

This study exposes relevant information regarding the informal coal mining production necessary for the formalization process of these small informal producers, within the framework of Corporate Social Responsibility of mining company. This study aims to promote socioeconomic local development with the purpose to improve the reputation and position of the formal mining as local development axis in areas characterized by poverty conditions.

1.0 INTRODUCTION

According to the World Bank, artisanal small-scale mining is “the most elementary type of mining, characterized by individuals or group of individuals who exploit deposits in small scale with simple manual methods or equipment”. It is qualified as “informal” since it is developed without possessing mining rights or in third-party lands, and without the appropriate authorization (Hiba 2000).

The main characteristic of this type of mining is that it is not controlled or regulated by the Government. Those involved promote such activities outside government control and legal norms on purpose. Another feature of this type of mining activity lies within the challenge of achieving a global definition. Some countries define it as “mining at small scale”, a denomination adopted by the World Bank to refer to small-scale mining and/or formal or informal artisanal mining (Instituto de Ingenieros de Minas del Perú 2007).

2.0 INFORMAL MINING IN PERU

Today in Peru, there is no widely accepted definition of artisanal mining, a term used to define a diverse range of activities. The Ministry of Energy and Mines (MEM) defines an artisanal mining producer as “an individual or group of natural or juridical individuals that commonly engage and as a means of livelihood for the operation and/or direct benefit of minerals, conducting business with manual methods and/or equipment”. This definition was defined in the Formalization and Promotion of Small-Scale Mining and Artisanal Mining Law (Law N° 27651 - Ley de Formalización y Promoción de la Pequeña Minería y la Minería Artesanal). This definition not only emphasizes the

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productive peculiarities of artisanal mining activity, but also recognizes that the artisanal mining producer is engaged in this activity as their livelihood.

Today in Peru there are approximately 60 000 families relying on illegal mining activities, 85% of which are gold producers. These people work without the appropriate production technologies, health and safety measures and environmental management practices.

The informal coal mining activities are mainly developed in La Libertad, Ancash, Lima and Cajamarca regions (see the Figure 1).

3.0 THE FORMALIZATION PROCESS OF INFORMAL MINING IN PERU

The promulgation of the Formalization and Promotion of Small-Scale Mining and Artisanal Mining Law (Law N° 27651) in 2002, recognizes artisanal mining activity as a permitted activity within the legal mining framework, as well as establishes the requirements for its execution. This law defines artisanal mining activity based on the peculiarities of the worker and the elementary equipment used in these activities (intensive manpower and basic tools); and recognizes that the artisanal mining producer is dedicated to this activity as their livelihood.

Legislative Decree N° 1105 (April 19, 2010), specifies the rules for formalization of small-scale and artisanal (informal) mining activities. Thus, it provides that the formalization process can be started or continued by those small-scale producers performing this activity and meet the following steps:

- Presenting a Commitment Statement;
- Ownership accreditation, cession agreement, mining agreement on the mining concession;
- Ownership accreditation or superficial land use accreditation;
- Water use authorization;
- Approval of corrective environmental management document (Instrumento de Gestión Ambiental Correctivo - IGAC); and
- Authorization for commencement/recommencement of exploration, mining or mineral beneficiation.

Each step needs to be fulfilled before continuing on to the next one, although some of them can be processed simultaneously.

According to the Ministry of Energy and Mines schedule, the period for the formalization process began on April 19, 2012 and should have finalized on April 18, 2014.

4.0 CASE STUDY RESULTS

Minera Barrick Misquichilca S.A. (MBM) requested for Golder Associates Peru S.A. (Golder) to conduct in 2012-2013 a characterization of informal coal mining in the Perejil Basin. MBM has the mining rights of this area. MBM's the mining unit Lagunas Norte is located in the Quiruvilca district, Santiago de Chuco province, La Libertad region, approximately 130 km east from the city of Trujillo.

Figure 1: Location of Lagunas Norte Mine (Case Study)



In the surroundings of the Lagunas Norte mining unit the following informal miners associations can be found:

- Artisanal Miners Association of Alto Chicama (AMACHIC for its acronym in Spanish), with 154 partners.
- Coal Producers Regional Association of La Libertad (ARCALIB for its acronym in Spanish) with 401 members.
- Other associations: Artisanal Miners of Quiruvilca Association (ASMARQ for its acronym in Spanish) and Rayambal Civil Association.

These associations were legally constituted in 2009 with the aim of formalizing the coal mining activity and protecting the production chain, which includes transportation and marketing. All associations, except AMACHIC, are included in the Artisanal and Small Miners Producers National Confederation of Peru (CONAMI).

As stated before, the underground coal mining activities are carried out without the appropriate technology and without occupational management for miner's safety; creating high risk activity. Other issues in these areas are limited access to health centers and inadequate road conditions.

5.0 PROPOSED METHODOLOGY

Based on Golder's experience, the strategy to address a study of this magnitude was the most important stage. The aim is to meet the interest or corporate standards of private companies as part of their Corporate Social Responsibility (CSR) framework, with the interest of informal artisanal miners to take advantage of the Peruvian Government incentives for formalization.

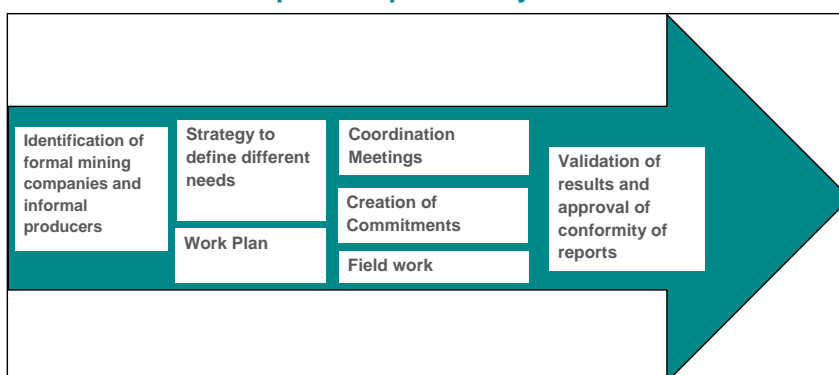
The strategy consists of articulating and guide private sector's interests with those of informal miners' interest. The private sector, within its CSR framework, seeks to promote and strengthen the socio-economic development of their environment, which will results in its reputation, its position at the heart of local development in relationship with its neighbors and better understanding of their environment. On the other hand, informal (artisanal) miners hope the private sector will support

their formalization process, providing advice and consultancy in each step and developing studies that help to dimension their activity.

Both parties show not only their interests, but they also shall outline their commitments to achieve the success of the process. The private sector is committed to providing advice and counseling in order to support the formalization process and developing in-depth studies on the extent of informal mining activity adjacent to their operation (for example, IGAC and trainings). Informal miners are committed to not disengaging from the process, providing a list of the mines and their owners (members or not members), supporting local guides for location and registration of informal and artisanal mines, actively participating in the collection of information gathering and informing miners about the study's scope and importance.

This articulating work begins with a meeting for the study presentation (objectives, methodology, and schedule) and formalization process, commitments by both parties and signing of the act of these commitments. Later, Golder does a reconnaissance visit to dimension the study, presents the field work plan and local guides help is coordinated as well as the dates for application of tools. Also, the number of houses and population in study communities, and number of artisanal mines are validated and accessibility is verified on site. Golder, as a consulting company, had the responsibility to carry out a transparent process for both parties, jointly plan and show results in a discussion meeting. Final reports of these studies are provided at the same time to both parties. The Graph 1 shows the process followed:

Graph 1: Steps to Analysis



The process considers:

- Identifying formal mining companies as well as informal miners.
- Defining a strategy in aims of identifying both parties needs.
- Elaborating a work plan which includes: stakeholder analysis, information sharing, consultation and engagement, according the cultural needs local.
- Coordination meetings with informal miners throughout the study. The study's protocol considers requesting permission and coordination with (artisanal) mining associations, to inform and coordinate the planned activities. Promote their active participation in field work.
- Reach agreements between the company and informal miners in order to generate commitments from the study.
- Field work was composed of two phases: qualitative research including interviews, focus groups and non-participatory observation; and quantitative research, refers to household survey. The instruments used to collect information were based on the experience and industry knowledge of the staff.

- The last step was validation of results and approval of conformity reports. The mine company and the informal coal miners agree with the findings and approve the study. Conformity of reports, which included maps, statistics tables and registration of informal coal mines and its features, was necessary.

The study was structured in two components:

- Socio-economic outlook: this component was defined on the basis of socials, economics and cultural variables, which contribute to understanding the context of the study's locations. It should be noted that the locations where the informal coal mining are developing are considered as poor and extremely poor; with limited access to health centers, education services and basic services (water, sanitation, electricity); and furthermore limited State presence.
- Technical and productive informal mines outlook: this component lets us identify different stages in the production chain of informal coal miners, determining its magnitude. The different stages in the chain process of informal coal producers range from exploration to production sale including also the stages of production, storage, among others.
- The results of the technical and production outlook determine the entire production chain of informal coal mining (owners, employees, suppliers, collectors, buyers, financial supporters, etc.) and a mine register (general information of the producers, general information about the mine, equipment, water quality evaluation based in field parameters, and others).

The methodology considered the problems faced by such studies, which are part of the lessons learned. Among the problems faced were: hostile population, high dispersion of the informal coal mine locations, conflict of interest between the principal local associations, inaccessible mine entrances and unsafe conditions.

CONCLUSION

The key issues in the development of this study were the coordination, the transparency in the collection of information and the validation of this report with the local people. In mining industry, the trust is particularly necessary to create and strengthen relationships with stakeholders: local people, workers, clients and with shareholders.

In Perú, authorities are interested in formalizing informal and illegal mining activities. This is an opportunity for informal miners and for mining companies to strengthen their relationship. It is therefore important to conduct such studies to characterize informal mining and the people involved in this activity, and reach agreements between mining companies and informal miners for both parties benefits.

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