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I Introduction

On the 24 January 2001, the Mining, Minerals and Sustainable Development (MMSD) Project held a meeting on ‘Small Scale Mining’ (SSM) in South America. A diverse group of 16 experts from different countries in Latin America participated bringing varying experiences and perspectives. MMSD regional partners from Southern Africa and Australia also participated in the meeting as did Global Assurance Group member Namakau Kaingu [Appendix A lists participants].

The meeting involved a series of presentations and discussions related to SSM. Key goals of the meeting were to

- Understand existing initiatives concerned with SSM in the South America
- Understand key issues relating to SSM in the region
- Gather considerations for what MMSD can usefully undertake at the regional level
- Inform the activities MMSD undertakes at global level to help improve SSM contribution to sustainable development
- Create the beginnings of a network in the region

This document is a summary of the presentations and discussions that took place over the course of the meeting. It is by no means – and is not intended to be – comprehensive in its coverage of initiatives and issues facing small-scale miners in South America.

As an outcome of the meeting, a Committee has been formed to decide between a number of options suggested in the meeting regarding how to proceed in the region, and how this may link into and inform global MMSD activities.

2 Existing SSM initiatives in South America

There was a discussion from the participants of existing initiatives in regions that they were involved in. They also described some of the strengths and weaknesses they perceived in these initiatives. The following list is not intended to be exhaustive but provides a good basis for understanding the types of initiatives underway in the region.

Programa Para la Prevencion y Eliminacion Progresiva del Trabajo Infantil en La Mineria Artesanal de Oro en Sudamerica

- Bolivia, Ecuador and Peru
- Funded by ILO (IPEC), and USAID
- Focuses on eradicating child labour in small-scale gold mining and has 3 objectives:
 - Educate and increase knowledge of key public and private institutions and mining communities about the scale and type of problems associated to child labour in SSM
 - Institutional capacity building for public organisations to formulate and implement policy aimed at eliminating child labour

- Remove children from high risk SSM working areas in selected areas and preventing new child labour by: implementing low cost technological investment which increases family income, development of other income supplements plans, improving child social services

Specific projects include Santa Filomena project in Peru with Spanish Agency for Int. Coop. and local NGO, CooperAccion, to eliminate child labour in SSM through education, increasing productivity of mining (mechanisation), creating new family income sources, fortifying educational system.

Projekt Consult GmbH – Bolivia: Support to Small-Scale Mining

- Bolivia
- Funded by the European Commission
- Objective: to promote economic and social development in the project region. Orientation phase of a year followed by general operation plan. Plan to provide machinery to ssminers (machinery from old state company, COMIBOL) with educational assistance, also plan to make geological information more available to ssminers

(Similar other projects exist, funded by COSUDE, such as GAMMA in Peru, PMSC in Ecuador and another project in Brasileria)

Fundacion MEDMIN, Medio Ambiente, Minería e Industria

- Bolivia
- Funded by COSUDE (Swiss Agency for Development and Cooperation), executed by Projekt Consult GmbH (German company), with the participation of FENCOMIN (National Federation of Mining Cooperatives in Bolivia) and the Bolivian Ministry of Economic Development (through the Vice-Ministry of Mining and Metallurgy)
- Providing environmental services for small-scale mining and industry sector to improve quality of life in Bolivia. The main types of assistance are:
 - Environmental consultation for small industries and capacity building
 - Technical (environmental) assistance, assisting in implementing simple and accessible technologies. Including identifying and assisting in obtaining funding.
 - Training; for ministries, NGO's, universities, miners and cooperatives etc.

The project is focusing in 2 areas; gold mining in the department of La Paz and water contamination in the department of Potosi.

Examples of work: promoting use of retort (captures Hg in gold mining) through national workshops; coordinating financing and building of tailings dam to collect tailings from SSM in Potosi

GAMA – Proyecto Gestion Ambiental en la Minerai Artesanal

- Peru
- Funded by COSUDE implemented by Projekt Consult (GmbH)

- Offering technical assistance and capacity building for ssminers, with objective to improve the environmental situation and living conditions of SSM by integrating it into the formal sector. Integrating simple environmental technologies, fortify micro and macro SSM institutions and organisations etc.

PMSC

- Ecuador
- Funded by COSUDE, implemented by Projekt Consult (GmbH)
- Same as MEDMIN and GAMA

Contaminacion con mercurio de la mineria aurifera [...] Rios Tapajos y Madeira, Amazonia, Brasileira

- Brazil
- Funded by European Union and implemented by Projekt Consult (GmbH)
- In collaboration with local mining association and local administration it had 2 parts:
 - Diagnosis of environmental impact in the region of SSM
 - projects for improving exploration and metal recovery for ssminers were developed and implemented in the project area
- Project finished in 1997

ECOMIN – Program for Environmental Management in the small and Medium Scale Mining Industry

- Chile
- State owned mining company ENAMI (Environmental Co-operative providing technical assistance, credit and subsidises purchase of SMM products), Mining Ministry (environmental unit and Dept. Engineering Management) and to a lesser extent SERNAGEOMIN are to carry out ECOMIN
- Small and medium mines
- Objective: to increase positive effects of SSM on Chilean Economy (livelihood generator in poorer areas) and reduce environmental problems
- Methods; introducing environmental management tools, develop and disseminate clean and appropriate technology, establish system for EIA's

PAMMA – Programa de Asistencia y Modernizacion de la Mineria Artesanal

- Chile
- Supported by Chilean Ministry of Mining
- Created to improve the quality of life of “Pirquinero”, i.e. small scale miners who work for someone else, by improving efficiency and productivity of mining through capacity building, technical assistance, legal and financial assistance

PATMIN

- Bolivia
- World Bank
- Viability of investment and restructuring of mining cooperatives (concluded that viable approaches for promotion of mining exist on condition that machines and equipment is available and the enterprises are open to internal restructuring, from Projekt Consult)

Fair Trade

The Projekt Consult GmbH small-scale gold mining project in Bolivia incorporates selling gold production through Fair Trade

University of Chile

Shared initiative to develop a research centre for SSM to undertake research in 2 areas:

1. develop exploration tools for small ore bodies
2. tools for SSM operations

ILO and Child Labour

The ILO are working in the area of SSM and in particular child labour. The objectives of this work are to:

- Generate knowledge – insufficient knowledge of child labour
- Undertake local and national studies to analyse situation. Update information in Bolivia, Peru, Ecuador as baselines for intervention. Systematise successful intervention models. Indicators/key variables need to be revised
- Review experience of efforts. Following the objective of contributing to the prevention and elimination of child labour but this cannot be the outcome of enforcement or regulation. Develop awareness that local processes are taking place and try and understand where efforts can be coordinated
- Strengthen institutional building, policies and programmes of action - coordinate government technical studies
- Create awareness of issues through sensitising campaigns
- Direct support actions have been considered
- Develop self-regulation models for ssminers

In some communities project has 3 main lines of action:

- Support on technological changes in framework of sustainable development
- Support for business and local economy, particularly women
- Improve and build social services for children

Other Initiatives

- CAMMA workshop

- UN Harare Guidelines for development assistance agencies working in the SSM sector (1993)
- World Bank International Roundtable on SSM (1995)
- Global Conference on SSM, Calcutta (December 1996)

Organisations

- Ecomine – Technological transfer, training and environmental issues for small scale mining
- CETEM – Centro de Tecnologia Mineral, Mineral & technology centre, Brazil – coordinate network of technological assistance in Rio Brazil
- ECLAC – Analyse the legal side and register legal changes in continent. If have resources, give technical help to governments that are interested in listening to information. Network to assess all of aspects as impact have has in Latin America. Develop closing mines
- CIMEE – trying to improve the legislative responsibility of congress men – average of 14 countries attending these seminars. Without these meetings, could not have moved on. New branch of international law – as an outcome of these legal agreements

Comments on existing initiatives

General

- Knowledge, network, commitment in place but there seems to be an inability to move from words to actions – many good ideas, proposals and tools that remain without value in implementation.
- Dispersion of initiatives – much wasted.
- A lot needs to be done to move initiatives on. The common problem between countries is the inability to move forward. Many proposals and tools remain without use. Constraints and obstacles stop them moving on.
- There is sometimes an engineering bias in initiatives.
- Financing for projects is a problem - joint ventures are rare

Large companies

Large companies have a responsibility to support small-scale mining because they are going into areas where indigenous groups and small scale miners are already present. There seems to be a desire in large companies to improve this relationship.

Government

The view was expressed that SSM is often not dealt with sufficiently by Government. In many countries there is a need to build capacity in Government to improve support to SSM. Much of the assistance comes from foreign governments.

One problem is that information does not always effectively reach Government. For example, in Peru when the government read the outcomes of research on SSM, they were shocked by the number of small-scale miners in Peru.

Statements to develop policies often do not translate into reality. For example, in Chile, a map of action was created which set steps that need to be taken to halt the decline in SSM and to move towards sustainable and competitive SSM. No one from Government participated and it has not been adopted by any public agency. Why do ministers etc.. not provide that kind of assistance?

Similarly, ECLAC expressed the frustration that events to assist SSM unfortunately do not have a practical effect in countries. For example, in 1998 both CIMES and Conference of Ministers passed statements to develop policies on SSM but these have not been translation into reality. The problem is how to effectively disseminate the outcomes of the events to influence public opinion. SSM is very important in South America and the public need to be made aware of this to reach decision makers.

In Chile, the Government is at an early stage in policy development regarding SSM. Here, it was felt that the Government tends to take a very short-term view and gives more importance to economic rather than social or environmental growth. Moreover, each department has its own objectives making it very difficult to initiate cross-sector initiatives. The Government needs to have a broader vision.

International Organisations

It was felt that most international projects have an environmental objective. Some conflict of interest. Small-scale miners want funding but international organisations have other objectives – social/environmental.

SSM networks

Potentially huge support to develop network for information sharing among Small-scale miners and other actors.

From a business perspective, Small-scale miners could greatly benefit from the setting up of a network to exchange market, technical and other information.

Research

There was consensus that research is a key means to the goal of promoting SSM and improve its contribution to sustainable development. However, it was felt that currently a lot of money is wasted on research that does not go further. The problem does not lie in a lack of research but a lack of continuity in research.

Lack of baseline information. Much of existing research has come from secondary sources and is not updated. The data used is therefore not trusted. For example, in Peru, there is no real idea of the production of gold through SSM.

Difficulties in spreading or disseminating information to the right audience were highlighted.

It was suggested that research that is purely descriptive should be discarded. If there is research for change, it needs to look at the sustainability of SSM in terms of key aspects including technical, environmental, socio-economic, cultural, organisational.

3 Key issues facing small scale miners in Latin America

SSM differs in importance in different countries in South America. For example, Bolivia and Venezuela each have an estimated 100,000 Small-scale miners and Ecuador 50,000. In Chile SSM is decreasing in production levels and numbers employed. However, in many other countries in Latin America it is not. The types of problems faced differ significantly between countries – in some social problems predominate and in others environmental or health. Some countries are more in need than others.

To a large extent, it is evident that Small-scale miners throughout the world are faced with the same problems. The key issue is understanding what needs to be done to remove some of the constraints facing Small-scale miners.

Some of the constraints facing SSM highlighted in the workshop were:

Lack of expertise

Need for training, e.g. on mine safety and health impacts of leaching, and on how to minimise the environmental impacts of their activities.

Lack of technology

Small-scale miners need access to innovative and improved technology.

Inability to grade what is produced. Small-scale (SS) miners need to know this to maximise the efficiency and profitability of production.

Lack of market intelligence

Trade systems, market prospect studies.

Lack of information and dissemination of information

Lack of information for SS-miners on mining-related issues. SS-miners do not know who to speak to, where to go, how to access information, e.g. if SS-miners had web access, they would know gem prices.

Lack of capital

SSM is very capital intensive, thus working capital is needed to expand operations.

Lack of action by government

(Described above)

Prohibitive costs

The costs facing SS-miners need to be reduced if they are to survive. In Chile for example, in the last 10 years, production by SS-miners has reduced by approximately 10% . Some

SSM operations have closed because of relative high cost, low prices and low levels of production. To help SS-miners remain economically viable, need to develop guidelines for improving technology, efficiency, social benefits, etc.

4 Key Issue concerning child labour in small scale mining

Previously, child labour was an issue that did not attract much attention. More recently, there has been a change in focus and issues concerning women, gender, and child labour have come to forefront. There is a move towards trying to avoid or eliminate the need for children to participate in these activities.

The problem of child labour is a serious problem in many countries in South America including Brazil and Columbia.

In Columbia (as in other countries), there is a lack of information regarding child labour – numbers and where. Because it is illegal, the information is hidden. Child labour is driven by poverty and therefore the problem of child labour cannot be addressed without addressing poverty.

Self-regulatory systems are the most innovative and important projects happening. Communities need to taken responsibility themselves since Government is not doing anything about this in South America.

5 Historical attitudes to small scale mining

Historically there has been a preference among lots of countries to ignore or even reject SSM sector.

At the end of the 1980's there was a negative to SSM from the World Bank. Large-scale mining was considered the way forward for developing countries. At this time, the UN had a technical department that recognised the presence of small-scale mining. By the end of the 1980's some international aid agencies had more mixed attitudes to SSM. International organisations have now recognised problems and there has been a change in their attitude. At national level there have also been some changes in the legal framework, with recognition and legitimacy given to SSM.

Along with the change in views of international agencies, business needs to accommodate ssminers and their rights, particularly those who are housed close to or in, mining sites.

Despite this change in attitude, there is still some confusion between institutions and government on how to improve, enhance or rationalise these types of activities. Thus there is much inconsistency but at least some interest.

This period also saw a change in understanding of some issues. For example, there is now a realisation that technology by itself is not going to fix problems. A wider vision has formed and it is now recognised that broader policy and social issues are required to make progress. There has been change in the concept of monitoring and enforcing of SSM and training and

education to empower ssminers. There has also been a change in emphasis in the level of understanding and in way issues are managed.

However, ssminers, faced with pressing short-term needs such as problems of hunger and poverty, do not have the patience to wait for policies or research.

New issues face SSM that will challenge their future, for example:

- Large companies are talking about certification processes. What will the implications of this be for SSM?
- Changes in market – how will ssminers survive in market to which never had good access and which is changing all time.

At the same time there is a new idea is sustainability. Change in understanding of what is meant by a legitimate and sustainable livelihood.

How do we make SSM a legitimate livelihood? Does it mean creating other markets or employment? Does this mean an end to SSM as we know it?

6 Small Scale Mining's Contribution to Sustainable Development

For clarity, need to define the concept of sustainable development in the context of SSM.

- In case of SSM – sustainable mining and mining and sustainable development are very related.
- How does SSM become a useful constructive contributor agent for positive change? How do we achieve responsible mining?
- How are we going to deal with this topic? To create livelihoods that are sustainable or as a stage to go forward? Should SSM be used as a tool to fight against poverty?
- Will we in the future have to move away from areas in which SSM is not profitable? We cannot be short-minded to just improve SSM because by itself it is not sustainable. In some cases, SSM represents a poor sector struggling not to be extremely poor. Need good quality of mining regardless of size of mine – this should be considered as the common denominator.
- How effective are contributions in terms of the mine creating other opportunities after life of mine?
- If small scale mining is done well, it is highly sustainable and impacts are less than large scale mining.
- SSM is a significant part of society – in part because of their sheer number.

7 MMSD and SSM

7.1 Global

At the global level, MMSD intends to undertake activities on SSM. It has also been identified as a priority issue to be addressed in the Southern Africa regional process. Since SSM may also be a priority in other regions, it is important to consider how MMSD globally can best complement potential regional activities.

7.2 Southern Africa

MMSD Southern Africa – platform for ssminers to disseminate information about their problems. Information about SSM is not widely enough disseminated. Need to capture existing information.

Also call for access to information from ssminers – potential for setting up technical network for information via MMSD

7.3 MMSD potential contribution to SSM in South America

General

What can we do with what we have and not generate more expectations than can achieve?

Need *consistent and ongoing mechanism*, regularly updated information to help define priorities and policies

Need to work *cooperatively* to create inventory so that do not keep on duplicating functions.

Availability of and Access to Information

- Need for good quality information about the importance of SSM. Information on ssminers - who, where, what are their needs? Validate and consolidate inventory – first in Southern Africa and Latin America then later on in Asia and other parts of world of:
- Gap analysis
- What are constraints to diffusion of experience?

Review of Interventions and Initiatives

Map and develop a database of existing interventions and initiatives

Mount critical reviews of a number of interventions - projects coordinated by government, donor assistance agencies and NGOs e.g. technical assistance, training programmes and capacity building. e.g. ITDG in Zimbabwe, SANTREN in Tanzania, MEDMIN. What has worked? What has not worked?

Need an inventory or framework to do this. They can be evaluated in a number of ways, for example using generic criteria such as impacts on child labour, women, capacity to practice in a more environmentally responsible way, ability of mining to generate income.

Perhaps establish a stakeholder group to establish a database of projects that could rank – analyse and show and try to define these projects within the areas we consider interesting. It is very important that don't just have to have a project databank – need to work on inventory of actions that have already been done in this area in Latin America and get lessons from that – what worked and what didn't work. as a means of evaluation for new projects.

SSM and Sustainable Development

Try and address SSM in terms of ability to contribute to livelihoods. Polish terms defined - what we mean by SSM and sustainable development? For example, like the conclusions of the Caracas workshop, consider SSM as a way of reducing poverty. Take advantage of MMSD and Rio +10 meeting to make a serious intervention that SSM is an activity which is sustainable. Need to generate enough information to verify this. Need to have strategies to make this small scale mining activities become also an activity to combat poverty to face poverty.

Legislation

- Look at reforms in laws in countries to look at effectiveness of changes in the subsector. The reform is working but it does not acknowledge some parts that are important.

Network of Contacts

Create a network of contacts for SSM – regionally and globally. Information sharing between and about ssminers. This network could begin with Southern Africa and Latin America.

Develop a Strategy

The question is how to strategise, synthesise information to have a plan for short, medium and long term.

- Develop a framework for action for the future
- Rio + 10 should be seen as a milestone but we should look into the longer term about what need to do. Need to focus on things can do to define specific aspects to provide a foundation for the future.

Research

Define the research requirements for this subsector for the short term and long frame – schedule of short term with vision of long term. Could cover the following areas: e.g. legal framework – compare legal frames between countries, labour alternatives

Take Caracas list, could turn every one of conclusions into a research project and what the implications are of them for building institutions etc which work. Use the output from Caracas as a way to select some issues from the list that are meeting our vision of what is important.

It was suggested that the following issues that came up in Chile map of action could form the lines of research followed by MMSD:

- Business management
- Services to mining activities
- Efficient promotion
- Attract investment
- Health & safety
- Innovation & technology transfer
- Technical training
- Trade & commercial training
- Promotion of SSM
- Legal issues
- Social inclusion of SSM

Case studies

Report successful case studies – this will help to change negative perspectives of SSM. Can have a world wide initiative with the support of multinational companies and multilateral organisations.

Review existing institutions/organisations

Effectiveness and strengths of miners federations and unions.

Action

Committee formed comprising Thomas, Carlos, Jeff, Hernan, Christina, Zoila, Eduardo to discuss way forward.

Planned a meeting between MPRI and CIPMA to work on a document¹. This would then be emailed to the committee and followed by a teleconference to reach agreement on how to move forward. Proposal will then be sent to rest of participants.

ECLAC offered potential assistance in the production and dissemination of documents for work that MMSD undertakes on SSM in Latin America.

¹ Since the meeting, CIPMA and MPRI have agreed that CETEM will produce a proposal to discuss with the committee.

8 Appendix A. List of Participants

CHILE

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