

Improving Citizen Participation in the Environmental Impact Assessment Process for Mining



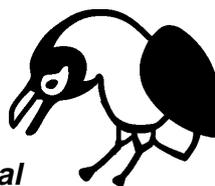
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IMPROVING PUBLIC PARTICIPATION IN THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS IN MINING

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These organizations worked in the search to improve existing public participation tools in their respective countries. This work is the conclusion their efforts.

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Editors.

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PRESENTATION

Expansion of mining in the western hemisphere presents a great potential for regional growth. However, its contribution to local and regional development requires not only improved productive and management practices, but also policies that are based on social and environmental responsibility, which are conditioned by the management of diverse economic, social, environmental, political and institutional factors.

In general, the relationships between mining companies and their surroundings are very complex and require an adequate regulatory framework and a vision and philosophy of entrepreneurial development reflected in policies that ensure mining activities contribute sustainably and equitably to social, economic, environmental and cultural development.

The need for local communities and mining efforts to associate themselves is, in the short term, a very important area for analysis for companies, the State and communities. However, this is not possible if public and citizen participation instruments are not generated to facilitate a relationship based on confidence and not conflict, on dialogue and not confrontation, in a clear recognition of rights and not their violation. At present, it is highly probable that there will be more and more conflicts arising between mining companies and communities.

It is in the building of these tools that there is the need to recognize progress made and make use of experiences derived from existing management instruments, enriching them, modifying and reinforcing them as necessary, with a double objective: using them as a means to prevent conflicts or environmental impacts, and to turn them into viable, objective and reliable tools.

The main goal of this project was to develop an initiative to improve public participation in the environmental impact assessment process for mining activities, incorporating social and economic elements and criteria for sustainability in a primarily environmental tool. Environmental law centers in five key mining countries (Canada, Chile, the United States, Mexico, and Peru) joined together to work on this project.

The financing for the project, provided by the International Development Research Center (IDRC) to the Peruvian Society for Environmental Law (SPDA) and its collaborating institutions, sought to enhance citizen participation mechanisms in the environmental impact assessment process of mining operations through an analysis of the level of participation of the community in the environmental impacts study process in a context of globalization and financial and economic liberalization and the necessity to preserve social identity and culture and biodiversity.

Our work enabled us to identify: key factors that promote and trigger citizen participation in mining operations; the principal sources of conflict; institutional reforms, which stimulate conflict; and successful experiences.

The project sought to achieve the following objectives:

- Examine existing citizen participation mechanisms in environmental impact regulations;
- Examine opportunities for citizen participation through informal mechanisms, as well as voluntary efforts of public and private institutions to foster these opportunities; and,
- Evaluate the level of confidence of different actors in the EIA regulations.

There are currently few studies regarding citizen participation in the environmental impact process in mining and less information on comparative and regional approaches to the issue. This project, undertaken in five countries in the region, has sought to fill this gap in an additional effort of ensuring that the environmental impact assessment achieves the objectives which led to its development: prevention of all types of impacts.

**Peruvian Society for Environmental Law
Lima, May 2003.**

IMPROVING CITIZEN PARTICIPATION IN THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS IN MINING

1. Introduction

The environmental impact assessment process or environmental assessment (EA) is a key instrument for environmental management. It has a preventive rather than corrective nature and is oriented at providing the necessary elements for informed decision-making (by the authority in charge and the owner of the project); to introduce potential and probable impacts of a project; and to help in the planning of measures to prevent, decrease, mitigate or (if possible) eliminate those impacts. The EA is fundamentally a timely, adequate and sufficient information tool for a citizen to understand the environmental and social features of the proposed project and inform him of the moment when he needs to be consulted about his concerns in this regard.

The EA must respond to certain key elements:

- It is a process with different phases
- It is an instrument for preventive environmental management
- It is a process prior to the beginning or development of an activity subject to its rules and procedures
- It is fundamental instrument in the decision-making process
- It is part of the common planning process of a project
- It is an eminently participative process

The citizen participation component of the EA links it to other principles citizens' rights, such as the right to a healthy environment, governance as a requirement for decision-making, shared responsibility, transparency and respect for any suggestions made by the public. These principles and rights concerning the EA and citizen participation will guarantee compliance with the objectives, which lead to policy and legal developments. However, both instruments have application problems throughout the hemisphere; an analysis is provided as part of this publication.

On one hand, citizens have lost confidence in the EA as an instrument for reliable decisions when determining the real impacts of an activity, and we might add, in many aspects, its development has been at the margins of the concept of sustainability by not including social analysis nor governance criteria.

Regarding participation, incorporating proper tools to guarantee its effectiveness and efficiency has, in many cases, not been the result of the will of governments (who in many cases do not recognize the advantages of providing citizens with adequate, sufficient and timely information and a forum to be heard), but of citizens' initiatives, who understand that this mechanism is not limited to an activity permitted by law but to the exercise of a legal action whose objective is to obtain an adequate knowledge of an activity to be carried out.

When we incorporate citizen participation into the EA, we must take into account all these variables and the multiple reasons for this. Considering the nature of the projects, it is critical to incorporate the social element, whether it be for ethical reasons to improve the design of the project to be undertaken, to reduce correction and repair processes, to eliminate environmental risks, or to guarantee equal social rights or to avoid unnecessary costs in terms of money and time.

Reality confirms these elements are absent, denaturalizing the purpose of the assessment. In Montana (United States), organizations who signed the Good Neighbor Agreement (GNA) with the Stillwater Mining Company—an example of community participation in the decision-making process—did so, after the authorities approved an environmental impact study (EIA), following all the procedures established by federal law and those of the State of Montana. This study was not only rejected by the community but led them to prepare legal actions to challenge it.

In Peru, the population of Tambogrande rejects continuation of the EIA not because they do not wish to learn about the impact on their community. Rather, they fear that completing the EIA will result in the

definite authorization of a project, which they oppose, since the EIA has become a report to obtain permits and not a document, which is an integral part of the planning of a project.

Mining operators have acknowledged that citizen participation is weak. In a survey carried out in 2001 by Price Waterhouse Coopers on mining sustainability, the following was anonymously quoted:

the industry does not have suitable communication abilities ... it does not know how to formulate a positive message. Perception is important because the public views mining as it is: bad, regardless of what type of mining we are talking about.

However, the problem cannot be solved by analyzing citizen participation and the EA exclusively from a legal-environmental approach. The problems, conflicts and expectations surpass this level of analysis. The premise of this report is precisely to escape the formal level (simple legal analysis) to identify other factors that have an effect on the operation of both instruments.

As a result of the case studies and the analysis of the legislation and formal or informal mechanisms of citizen participation, important issues were identified and detailed in this publication:

- environmental impact assessment as a preventive instrument against impacts
- effective influence of citizen participation
- decision-making process
- authority in charge of the process
- political organization
- poverty in the population

In this setting, the project posed a key question: In what way does citizen participation contribute to the EA process to correct or mitigate the impacts of a mining activity?

There are a variety of answers and some organizations carrying out projects are working on these. The results represent specific policy initiatives. Some have been incorporated as formal mechanisms derived from legislative modifications; others are contributions for the development of informal mechanisms, which allow the balancing of citizen participation against the level of participation of the State and the companies themselves.

These proposals refer to:

- *Formal Mechanisms:*
 - Legitimizing access to the administrative process
 - Access to justice and information
 - Public consultation and the basic elements for opportunity and extension
 - Public hearings: how to guarantee that contributions are included
 - Publicity of the process and due warning
 - Mechanisms and international forums
 - Participation programs, methodological guides and early citizen participation
 - Normative consultation
 - Legislative initiatives
 - Advisory committees and technical groups
 - Access to land
 - Referendum
- *Informal Mechanisms:*
 - Public activism
 - Good Neighbor Agreements
 - Coordination and dialogue groups
 - Workshops, workgroups and sub-workgroups
 - Dissemination campaigns to create and disseminate awareness
 - Surveys
 - Technical reports

This publication, the result of a concrete analysis of the degree of citizen participation in the EA, seeks to contribute, not only to improve this important management instrument, but to recognizing the context in

which these instruments operate, and to generating a greater level of confidence among both. This is the only means through which prevention objectives can be achieved.

2. Environmental impact assessment

EA dates back to 1969, when this instrument was formally institutionalized into federal legislation of the United States through the National Environmental Policy Act (NEPA). The purpose was to improve the administrative procedure in order to enhance the quality of decision-making from a social and environmental perspective.

In Latin American countries, the institutionalization process of the EA initially responded to satisfying the requirements to obtain loans and credit from multilateral financial organisms.

Thus, the Latin American process prioritized the focus on presentation of environmental impact studies or reports over the procedure to improve public decision-making systems.¹

This initial faulty approach, partially explains current conflicts and mistrust by the population from the results of its application.

The decision-making process implies complying with a series of consecutive stages, beginning with: notification, consultation, decision, implementation and review.² Therefore, EA must first be considered as a social and environmental management tool to favor participation in: (1) project selection according to environmental and social impacts; (2) their design and (3) the decision-making process. Therefore, EA should aspire to become a process to improve public decision-making systems and ensure that the options of projects, programs and policies considered, are environmentally and socially sustainable and not a mere requirement to obtain bank or state credits and permits.

EA has proved to be a fundamental system for improving long-term viability of many developing programs and projects. Besides, it can contribute in a definite way to prevent mistakes or omissions that may result in high environmental, social and/or economic costs and lead us along the path to sustainable development.

The benefits of the EA from an environmental perspective are:³

- Acceptance or cancellation in advance of proposals;
- Identification and increase of favorable environmental aspects;
- Identification and establishment of cost-effective environmental alternatives;
- Identification and participation of interested and affected parties;
- Design of more efficient and equitable projects; and,
- Suitable integration of economic, environmental and social matters.

The consequences of not developing an EA, or developing it inadequately, are:

- Inadequate decision-making;
- Lack of commitment by the parties involved;
- Decisions being delayed;
- Political damage and poor institutional relations;
- Financial losses;and,
- Failure of the project.

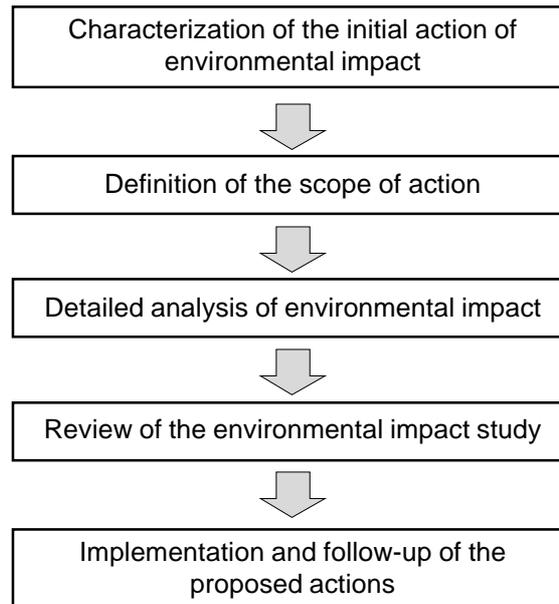
Often, due to legislative deficiencies, limitations in the follow up by authorities in charge of EA or by not having a system of differentiated stages, key steps that every EA⁴ should follow are omitted, therefore limiting citizen participation in each of these stages.

1 Programa Buenos Aires Sustentable, *Evaluación de impacto ambiental. Hacia la construcción de regímenes jurídicos de calidad ambiental en la ciudad de Buenos Aires*. Buenos Aires: FARN, marzo 1999, p. 16.

2 Petkova, Elena; Crescencia, Maurer; Norbert, Henninger y Frances Irwin; *Closing the gap: information, participation and justice in decision-making for the environment*. Washington D.S.: World Resources Institute, 2002, p.71

3 Alegre, Ada; *Gestión y evaluación de impacto ambiental en proyectos de inversión. La evaluación de impacto ambiental en la gestión ambiental peruana*. Curso adaptado del Programa de Capacitación BID, 2001. abril 2002.

4 Casa de la Paz, Practica, Practica, *Manual de participación ciudadana en el proceso de evaluación de impacto ambiental*. Santiago de Chile: CPPP, setiembre 1995, p.19.



In other words, EA is a process made up of different stages that allow its objective - as a preventive social and environmental impact instrument - to be achieved. These stages are:⁵

- *Screening* or identification and classification of the project: first overview to decide under what framework should the project be considered;
- Preliminary environmental assessment: a reduced EA for projects of low or an uncertain impact;
- *Scoping* or preparation and analysis of the scope of the environmental impact study (EIS): it includes working out the terms of reference of the study;
- EIA: review and decision. Production of the technical environmental assessment document;
- Administrative procedure to approve the EA: control and follow-up carried out by the competent authority.

Not all the development projects follow the stages mentioned nor are they susceptible of being incorporated under the EA regime. Therefore, the first three stages are extremely important to determine the applicability of the EA and the scope and focus which will be required in later stages.

The scoping phase is fundamental in order to incorporate consultation mechanisms *ex-ante* into the preparation of the EIA and not after it is developed. The stage of prior consultation was not even complied with in the development of one of the most important mining projects in Peru (Antamina).⁶

Prior consultation would allow the community to have a better understanding of the activity.⁷ It is clear that the owner of a mining activity may be prepared to comply with this stage but cannot find the best way to undertake it. The big questions are therefore: when would be the best moment to carry out the consultation and what would be its extent.

The main objective of the scoping stage is to undertake a preliminary identification of social and environmental impacts that may be caused by a project and, at the same time, identify who may be affected and in what way. During this stage, public consultation must make sure that the EA takes into

5 Pulgar-Vidal, Manuel, *La evaluación de impacto ambiental en el Perú: bases para un necesario consenso*. Lima: Sociedad Nacional del Ambiente, junio 2000.

6 Schmidt, Corinne, «Public participation, environmental policy and transnational mining in Peru: a case study of the Antamina Mining Company». Thesis from Johns Hopkins University, Baltimore, Maryland, 1999.

7 Pulgar-Vidal, Manuel. «Actividad minera y comunidades: bases para un mayor entendimiento». Ponencia presentada en el Congreso Internacional de Legislación Minera. Lima, 14 de octubre de 1999. Disponible en: <http://www.spda.org.pe>

account the main concerns of the community that may be affected and identifies the scope of potential impacts.⁸

The consultation process must have clear objectives and be a part of the EA process. The consultation process will allow:⁹

- the communities to exercise their choice of rights;
- determine which and how many communities may be affected in order to adopt the necessary decisions and preventive measures;
- determine the agreements for compensation and participation in benefits;
- initiate the preparation of the sustainability project for the locality .

With regard to the environmental impact study (EIS), one of the EA stages, it is designed to identify, predict, interpret and communicate all information of the impacts on the bio-geophysical environment, health and well-being¹⁰ caused by legislative proposals, policies, programs, projects and operational procedures. The EIS must include a technical and interdisciplinary analysis and propose actions and measures to control, prevent or correct degrading effects from environmental impacts.

We must consider that an EA is a formal process conducted and controlled by a governmental authority, whereas an EIS is generally a responsibility of the proponent, either from the private or public sectors. Thus, an EA is a diagnostic of what exists (the system), while the EIS is the instrument or document which allows the analysis to be put in order.

Someone interested in developing a project or activity subject to an EA, will need to present an EIS based on the risks of the activity, according to risk criteria or determined by lists included in laws or regulations. The EIS is, therefore, a detailed analysis of the characteristics and impacts of the project and can be a valuable instrument to achieve a trustworthy relationship between an activity - such as mining - and local communities. Reality and the case studies presented allow us to conclude the reality that this is not happening.

We must recognize that the EIS still presents conceptual deficiencies, as mentioned in the «Cuarta Reunión de Consulta sobre el Medio Ambiente» that took place in June, 1993: (1) it disproportionately emphasizes description and diagnosis aspects of the environmental context; (2) it creates confusion when applying environmental analysis methodologies; (3) it lacks an analytical process that clearly establishes the relation of cause-effect between the activities, impacts and mitigation measures; (4) it does not define an environmental protection and mitigation strategy for impacts, which operationally distinguishes mitigation activities that can be integrated in the execution of the project from strategic measures, whose performance depends on a parallel institutional structure; (5) it lacks an economic-financial-institutional articulation of mitigation measures, with the aim to determine its viability; (6) it lacks an institutional analysis to evaluate the operational capacity and determine the needs for strengthening, technical assistance, training, formation and the equipping of institutions and entities in charge of carrying out protection and mitigation programs for environmental impact.

Operational deficiencies in environmental studies could also be added. These include : (1) limited budgets to carry out EIS; (2) institutional and methodological weaknesses when addressing environmental problems in projects under development; (3) limited analytical technical capacity; (4) limited clarity when determining those affected directly or indirectly by an activity; (5) institutional deficiencies during the enforcement stage and monitoring of mitigation measures.¹¹

8 International Finance Corporation, *Doing better business through effective public consultation and disclosure*. October 1998.

9 Tobin, Brendan; Flavia Noejovich y Carlos Yañez, *Petroleras, Estado y pueblos indígenas: el juego de las expectativas*. Lima: Defensoría del Pueblo, agosto 1998.

10 Buroz Castillo, Eduardo, *La gestión ambiental: marco de referencia para las evaluaciones de impacto ambiental*. Caracas: Fundación Polar, 1998, p. 60.

11 «Revisión del concepto y práctica de las evaluaciones de impacto ambiental en América Latina: participación de las poblaciones afectadas y las ONGs locales «Segunda sesión plenaria de la Cuarta Reunión de Consulta sobre el Medio Ambiente. Banco Interamericano de Desarrollo. Comité del Medio Ambiente. División de Protección del Medio Ambiente. Panamá, 28-30 de junio de 1993.

The analysis of case studies and legislation of each of the countries we have worked with in this project allows us to affirm that these conceptual and operational deficiencies can be added to others that could be considered of the specified context but, due to their permanence in time, may just as well be structural.

To affirm that deficiencies of the EA process and EIS are due only to the conceptual and operational features mentioned above offers a limited view and fails to account for the lack of confidence that exists with regard to this important preventive instrument. In this report we refer to these context deficiencies: derived from poverty problems; lack of representation; loss of credibility of authorities; frustrated development expectations; unrecognized autonomies; unfavorable historical backgrounds, etc.

Conceptual and operational deficiencies, plus those mentioned above, determine that the EIS is not an effective tool in practice. There is the need for this study to incorporate the environmental dimension into decision-making related to the development process.

The usefulness of the EIS will depend, among others, on the following elements: chronology and synchronization of the EA with regards to other studies of a project (technical, economical, and financial); the level of definition of the environmental context; the influence area and the type of environmental impact; the level of popular participation, measured in the sense of the effectiveness of the consultation process and its contribution to the design, performance and monitoring of a project by the community affected; the level of formulation (technical, economical and financial) of the preventive, corrective and mitigation measures for negative impacts; and the structures and institutional capacity to implement mitigation measures, supervise them (monitor) and assess their quality and effectiveness (environmental audit).

In view of the present situation of the EIS, we first suggest strengthening the character of this study, redefining it as a real prevention instrument and orienting it towards a correct assessment of projects before major social and economic problems arise. There is a need to strengthen the EIS in relation to scope of inspections and control, regulation, basic information to monitor the progress or problems produced by a mining activity and coordination between competent authorities.

A key element for an effective EA and an efficient EIS is inter-institutional coordination. Often environmental problems are complex and varied, requiring detailed and specialized information from more than one governmental entity. The successful implementation of recommendations for the EIS will depend on the capacity of environmental institutions within each entity.

As detailed below, in order for an EA process to be successful from its initial stage, it must be based on clear, systematic and accessible participation mechanisms for the community. Those who carry out the process should also provide reliable and clear information from which all actors –government agencies, affected community, municipality, NGO groups, etc.– can adopt adequate decisions.

In the Stillwater Mine case, the local NGOs signed a Good Neighbor Agreement with the mining company. Although it was after the EA process, it demonstrates the benefits that transparency of information and commitment in decision-making processes have when generating confidence between mining operators and communities. Although the Agreement included many rules and procedures for citizen participation, the mining company violated them on many occasions. It appears that enforcement of the Agreement depended greatly on the parties' arduous work and the resort to traditional legal mechanisms to make sure the company complied. It is still not clear if an agreement entered into voluntarily by the parties would work without the guarantee of traditional legal mechanisms, as reflected in the report.

Nevertheless, a highly positive aspect is that the negotiation and the agreement entered into voluntarily by the parties in the case of the Stillwater Mine contributed enormously to improve relations between authorities and communities and opened the doors for dialogue in cases of significant controversy. In Montana, the organized residents helped the parties benefit from the negotiation process of the Good Neighbor Agreement. In Latin American countries, the majority of communities live in extreme poverty, with limited resources and difficulties to solve their basic needs nor have access to education and medical care. Therefore, in these cases there is the need to plan development strategies to help fight poverty before negotiation strategies and capacity-building. Additionally, the states' permanent absence and its «distance», worsens the situation even more.

In the case of the Aquarius Mine, in Canada, there was not a similar Good Neighbor Agreement. Nevertheless, agreements were concluded on the basis of individual negotiations with landowners, the majority of which were hunters.

In Canada, although the population was not well organized, some residents managed to significantly change the initial proposal through additional environmental studies not required by law. The result was that the government approved the project through the federal authorities. However, ultimately, few changes were made to the initial proposal and many of the landowners were not compensated as deserved and were individually pressured. The terms of the compensation varied from one family to another. Therefore, a social communication strategy is needed to keep the population informed of the EA process and follow-up of decisions.

An EIS must specify the concepts, criteria, points of view, methods of evaluation and permanent monitoring development methods of the mining project, in order to guarantee social-environmental benefits and avoid an imbalance between the key actors and project development. Voluntary mechanisms of citizen participation that cannot be implemented without traditional legal mechanisms are very interesting because they actually demonstrate that the EIS must be strengthened not eliminated.

It is important to identify the purpose of dialogue in each stage of the procedure. In the majority of cases, when a mining activity is initiated, it might be more effective for both sides to comply with the legal rules or try to reach a voluntary agreement. When the process is coming to an end, it is usually to resolve a conflict.

3. The role of different actors in environmental impact assessment

EA and citizen participation are instruments that involve multiple actors and are not only a matter for the State or company with the people. It refers to quality of life, the right to a healthy environment, democracy, representation and many other elements which force us to identify the role which each actor is playing.

3.1 The State

3.1.1 The national government

Although there are various areas of the government that have an impact on decisions over the development of mining, (development and economy or planning), this process has concentrated particularly on mining and the environment.¹²

The national government includes a series of actors. The difficulty to identify where decisions regarding an important project should be adopted - including mining - may lead to placing participation actions where they are less suitable. This occurs commonly in Latin America, where the viability of the projects does not come under environmental authorities, nor the Ministry of Energy and Mines, but under investment policies and often the Ministry of Economy or Finance.

The divided role of Central Government deepens the distance that already exists between the State and communities affected by mining projects. If mining authorities are unaware of the problems and concerns of the communities, the case is worse in regards to the Ministry of Economy or Finance.

The problem arises partly from the classic vision of the State being the «custodian» or «owner» of all of the nation's natural heritage, as well as the promoter of investments in exploration of and access to natural resources. Therefore, the State has to develop and enforce rules to facilitate the extraction of resources, access to land, tax measures, and flexibility of environmental management instruments, and oversee administrative resources. In short, the State is the axel that captures and redistributes wealth. A paternalistic State, which ... *makes mining more attractive for investment...and more competitive.*¹³

12 Equipo MSSD América del Sur, *Minería, minerales y desarrollo sustentable en América del Sur*. IIED, 2002, p.607.

13 Rojas Marcos, Carlos. *Empresas mineras y comunidades campesinas: responsabilidades sociales y ambientales*. En: *El rostro de la minería en las comunidades del Perú*. CONACAMI, 2000, p. 87.

This is the reason why the state exercises management of natural resources, in most cases, from the Central Government, without the need for a permanent presence in the area of the project. We have almost always found that the presence of mining, environmental and social development authorities in the area of a project is very limited.

The States' role should be redefined, in order to transform it into becoming a promoter of sustainable development. This will encourage innovative technology and, on the other hand, enable the State to regulate with a vision and elaborate flexible and *creative policies, stimulating sustainability and global competitiveness in mining activities and overall development of the country*.¹⁴ Its role in relation to environmental management instruments, such as the EIS, should focus on highlighting sustainability in its application and use, as well as demanding that it is used as a tool to prevent environmental social conflict.

How a competent authority with a vision for sustainability will help resolve the problems is an issue that needs to be analyzed. The reality of the region confirms that sustainable development commissions have been unsuccessful when integrating environmental, economic and social variables in mining projects. These commissions have duplicated the efforts that environmental authorities undertake and have discredited one another.

However, we perceive positive answers to State actions in local contexts. The agreements referred to above in countries like United States and Canada and the formation of groups such as the «Mesa Técnica de Apoyo a Tambogrande en el Perú» and the «Comité Técnico Académico» in the case of the San Xavier Mine in Mexico, demonstrate that communities feel more confident when they relate to local authorities. As a result, the challenge is to clearly define the role of the decentralized authorities in charge of articulating dialogue and promoting participation between mining operators and communities.

3.1.2 Local governments

*A key subject for sustainable development is the regions and towns participating in the decision processes of mining and in the distribution of revenues from this sector. One must understand the local public perspective, their requirements for information, training and participation in management and impact assessment of mining.*¹⁵

Decentralization is a process that should reflect a complete reform of the State with a view of revising already assigned responsibilities and consolidating the capacity of local and regional governments to adopt decisions. This process transcends the simple transfer of responsibilities and implies granting these governments the tools that allow them to define their own policies in a participatory manner.

Mining, by nature, is the activity that generates most centralism regarding regulation by the public sector. However, in most cases, the impacts are local. Denying local governments the capacity to define their strategies, policies and actions with respect to mining and limiting the role of facilitating dialogue between mining operators and residents is to ignore their potential in bringing together the parties.

Local governments should set up the instrument or mechanism to facilitate consultation and dialogue between the parties, that channels and prioritizes people's concerns with regards to the development of the project. Therefore, they have a central role in promoting effective participation during EA procedures.

3.2 Mining operators

Mining operators have recognized that, in many cases, they do not have an effective communication strategy to ensure that the communities involved accept their operations. The absence of initiatives by the company or the residents to establish initial contacts can often result in the lack and ineffectiveness of environmental management mechanisms.

Without the State involved in the EA processes, mining operators sometimes seek to relate to communities through informal or voluntary mechanisms, mainly on aspects related to their social responsibility. Although companies can carry out a complementary role, the State cannot be absent, as has been a regular

¹⁴ Ibid.

¹⁵ Equipo MMSD América del Sur, op. cit., p. 607.

practice. When a company arrives to an area, it can complement the States' role and initiatives, but never replace it.

When discussing the social responsibility of operators and mining companies, a distinction must be made between a socially responsible company and a paternalist or philanthropic company.

According to Caravedo,¹⁶ paternalism or philanthropism is a relationship based on donations to local institutions with the objective of carrying out charity or assistance work. The social investor is characterized by having a short-term vision of the town or community, although it does not necessarily share this with the other local actors. In contrast, a socially responsible company has a long-term vision for the locality, and shares this vision with the rest of the local actors. It will also invest in actions or sustainable projects that generate benefits for the community and themselves.

Nevertheless, it is very difficult to become a socially responsible company if, at the initial stage of an EA process, the population is not involved or consulted about their concerns about the proposed project. Social responsibility involves dialogue, listening and adopting recommendations of the community that allow for environmental impacts to be minimized and ensuring local citizens are satisfied with the mining operator.

3.3 Residents

Residents are individuals, local communities (not necessarily organized) and communities that are formed by indigenous populations.

Residents are also those that may be directly affected by a mining operation, either because they are landowners, the activity changes their lifestyle or their regular activities, or they work for the mining companies. Residents are also those that indirectly benefit from or are negatively affected by the activity.

These seemingly simple categories, are complex when we refer to the different interests each group may have in a productive activity. For example, some landowners may see an opportunity to improve their life conditions from the benefits that the operation offers, or the benefits of transferring to a better area. However, other landowners may oppose being transferred or reject the operation out of fear or distrust.

To consider local residents as groups of allies or opponents is a mistake. Believing that a project is not viable due to the existence of a group that fundamentally opposes it without reason, while other groups are interested, only fuels conflict and increases mistrust. A level of consensus is necessary but this is only possible when information is transparent and benefits are higher than the damages. For this to happen, groups must communicate, and this is where the EA plays a key role.

From an analysis of the legislation of the five countries studied, the opportunity for consultation and adequate information and notification of a project in Canada was verified; the development of participation programs with proper systematization and consideration of comments in Chile was assessed; and the right to petition for public consultation in Mexico was evaluated. These indicate concerns of local residents about the effectiveness of EIA as a preventive instrument. The main question is how to strengthen citizen's role in directing their concerns and exercising actions they consider necessary and how to define what role NGOs and other organized groups should play in this process.

In a workshop on actions of public interest,¹⁷ opportunities for future work were identified which, in many cases, are applicable to work with population. Strategies and mechanisms to allow their real concerns to be transmitted were emphasized.

3.4 Nongovernmental organizations

NGO groups have been important actors in social and environmental conflict resolution derived from mining activities. These organizations:

¹⁶ Caravedo Molinari, Baltasar, *Lo social y la empresa a fines de siglo*. Lima: Centro de Investigación de la Universidad del Pacífico, 1999.

¹⁷ Fundación Ford, *Rompiendo la Indiferencia: Acciones Ciudadanas en Defensa del Interés Público*. Santiago de Chile: Fundación Ford, octubre 2000.

... perform different roles, such as: *facilitating the participation of local residents in socio-environmental conflicts, defending public interest in investment projects that generate social and environmental impacts and articulating participation of external organizations with certain areas for resolution of social-environmental conflicts*.¹⁸

In Tambogrande, in addition to the Frente de Defensa, a Mesa Técnica de Apoyo a Tambogrande was established. It is composed of Diaconía para la Justicia y la Paz de Piura; APRODEH; CEAS; CEPES; COOPERACION; ECO; FEDEPAZ; the Asociación Civil Labor; the SPDA (Peruvian Society for Environmental Law); and the Coordinadora Nacional de Derechos Humanos, which is responsible for studying arguments that support non-viability of a mining project in the area.

In Canada, environmental NGOs participate in the review of projects as third parties, balancing the relationship of residents and property owners with the managers of the companies. However, these organizations do not have the resources to finance the review of the EIS, and residents usually lack the capacity to review technical documents of a project, such as in Peru.

The role of NGOs is critical in the building of capacities, dialogue, and the channeling of information, the solution of conflicts and in many other actions related to a mining community. Their strategies however, cannot generate an «anesthesia effect» on the concerns of the residents.

NGOs can play a central role in EA as independent third parties with the technical capacity to process information on a project. With a temporal objective and a vision to construct local capacity, these organizations help compensate limitations that residents might have to carry out such an activity.

4. Citizen participation

States have been recognizing in different forums that achieving sustainable development involves a long-term commitment that can only be reached by strengthening the participation of all citizens. They have taken on diverse commitments to initiate internal processes aimed at the assessment of public policy options and the construction of mechanisms conducive to strengthening citizen's representation in decision-making. The goal of these processes is to establish and develop legislative priorities and institutional mechanisms to expand means of participation, facilitate responsible participation and strengthen it in representative institutions.

Citizen participation was one of the subjects analyzed in the Rio Declaration and Agenda 21 of the Conference on Environment and Development (1992). Principle 10 of the Rio Declaration recognized that environmental problems are managed more efficiently with the participation of all citizens, whether at the national or international level. At a national level, each individual must have adequate access to information managed by public authorities and the opportunity to participate in decision-making processes, by accessing the process *and* justice.

On the other hand, Agenda 21 also recognized that governments should expand citizen participation options in decision-making processes and the formulation of sustainable development policies. It also determines what governments should do to consolidate joint efforts with citizens to achieve sustainable development on our planet.

In the Barbados Declaration, signed at the World Conference on Sustainable Development, which took place in May 1994, Small Island States agreed to establish alliances between government, organizations, intergovernmental agencies, NGOs and other groups, with the purpose of completing Program 21 and its action plan.

During the Summit for the Americas, which took place in Miami in 1994, citizen participation was addressed in its relation with the strengthening of democracy in the hemisphere and the definition of mechanisms to promote participation. The action plan establishes that governments should review the regulatory frameworks for nongovernmental actors to facilitate their activities and increase their capacity to obtain

¹⁸ Lagos, Gustavo E.; Hernán Blanco; Valeria Torres y Beatriz Bustos, *Minería, Minerales y Desarrollo Sustentable en América del Sur*. Borrador del Informe Regional, enero 2002, p. 33.

funds; improve the participation of traditionally excluded groups; exchange progress reports at the Summit of Bolivia on the activities of civil society; and consider the establishment of a new civil society program at the Inter-American Development Bank.

The section of the action plan on environmental initiatives refers to the need to promote public participation in the development of policies that include conservation and sustainable use of natural environments, and those related to the environmental impacts of development projects, and in the preparation of and compliance with environmental laws. The Summit on Sustainable Development, which took place in Bolivia in 1996, offered governments the opportunity to identify concrete actions that comply with these principles.

The importance of participation has become particularly evident with regards to environmental issues and sustainable development, as these issues are powerful catalysts of civil participation and excellent motivators for citizen action and responsible democracy.

The assumption is that only through a responsible and committed citizenry, universally represented and actively engaged in participation, can contribute to national priorities be reflected in decision-making. In general terms, this implies that spaces need to be created so citizens feel they « own » these spaces, feel responsible for society, and perceive the State as an instrument and collaborator rather than an obstacle.

Citizen participation cannot be limited to simply allowing a citizen to access information such as an EA as a means of access to justice in defense of environmental rights (recognized as a Fundamental Right). Participation involves among other rights:

- access to the level where the decision-making process is being undertaken;
- the right, as part of the participative mechanism, to reject a project;
- participate effectively in the benefits that the project may generate;
- demand from the authorities, objectivity and representation in decision-making.

Citizen participation is of vital importance as it gives us the understanding of: the nature and extension of the potential impacts of a project (especially social-cultural ones), the possibility to assess different measures to avoid or mitigate them - if possible - and how to compensate those affected. On the other hand, through citizen participation, we can analyze more effectively, a project's distribution of costs and benefits.

In practice, this means that projects, especially those that can be unfavorable to the environment, must include in the first place, socio-environmental variables that allow compliance with regulations and the legal framework. Secondly, these variables should help anticipate reactions, behavior, actions, etc., that ensure social viability of a project as proposed by the most simple practices of sustainable development.

In countries where we have carried out our study, there is a general need to strengthen the EIS as a key tool that prevents possible environmental impacts from the mining activity to affect people directly or indirectly. This should be reflected by stricter and less paternalistic legislation, obliging companies to establish certain parameters during their activities.

Although citizen participation is a necessary requirement for approval of an EIS, it is done extemporaneously in most cases. Generally, participation is achieved through informal mechanisms through which citizens find an alternative to legal gaps and the lack of attention by authorities.

Participation must be independent, combining knowledge and local motivation with appropriate advice. Funds are required to maintain the routine tasks of monitoring, and they must be promoted in a positive way, allowing for both social and financial audits. The ideal would be to establish continuous control mechanisms that are sufficiently participative and adequately financed would «force compliance with commitments established in the EIS».

Each of the analyzed cases of this publication illustrate different levels of citizen participation in the environmental assessment process in mining. They indicate a higher or lower level of participation, the use of formal or informal mechanisms (or both). The use of site visits demonstrated the degree of effectiveness of existing legislation and the importance of informing residents, listening to their problems and interests and promoting a dialogue between key actors.

Some mining companies have been generating their own spaces for dialogue with residents. One needs to go beyond legal requirements, many of which offer limited results when addressing participation issues.

Another problem related to the EIS is that the study lacks an integrated and comprehensive content regarding social and environmental issues. This is largely due to the limitations in the legal framework regarding its basic requirements.

The agreements on socio-environmental benefits in Canada are voluntary; however, in Canada there are laws related to this subject, specifically on mining and other activities linked to natural resources. An interesting aspect of the voluntary agreement is that it allows for the discussion of subjects of interest—something that is normally not allowed by traditional legal mechanisms (the EIS, for example, generally analyzes the technical aspects of a project, when certain social-economic elements should also be discussed). Project proponents should compensate the government if mining activities occur on public lands. The federal government has a fiduciary obligation to negotiate with them for the benefit of residents. The strengthening of financial and technical capacities is fundamental. On the other hand, for the members of the community, it is important not only to have technical representatives to participate in dialogue but also to feel that their concerns are effectively taken into account.

One of the key observations in the Canadian Institute for Environmental Law and Policy (CIELAP) report, is that the effectiveness of citizen participation mechanisms depends in greater measure on the level of sophistication of local residents with respect to environmental, social and economic impacts of mining development. In addition, one of the goals of citizen participation is sustainability, in which case consultation is more urgent at the beginning of the process and should include economic, environmental and social variables.

In Chile, informal mechanisms for citizen participation are very important to strengthen the understanding of the community with respect to the project. If the company values these informal mechanisms adequately, they would possibly become mandatory legal requirements.

With regard to participation in the EA process, the complexity of the mining process causes the initial consultation to sometimes vary along the process; therefore, intermediate participation mechanisms should be incorporated that can be associated to activities, such as the monitoring of the environmental management plan.

5. How to rebuild confidence in environmental impact assessment?

Some of the conclusions of the case studies of this project refer to the loss of confidence in the EIS as a prevention tool and to the people's belief that the EA process fails to incorporate social aspects. Therefore, the question remains whether this process can be undertaken to incorporate dialogue, sustainable development, building of capacities, etc.,— or whether there is a need to develop a parallel alternative to these mechanisms. Although in many cases this has been done, (a parallel instrument is, for example, a social impact study), the challenge is to regain confidence in the EIS as an efficient instrument that not only incorporates an environmental analysis but also a social one.

According to the International Finance Corporation,¹⁹ consultation during the *scoping* phase is important to gain peoples' confidence (of those that can be affected by the project), to understand that local residents have the knowledge and experience and that can offer an advantage to the project, proving the intention to take their concerns into consideration throughout the process. A series of critical tasks have been identified for this goal:

- closely follow to the consultation process;
- consult potentially affected groups;
- when relevant, work with the representative of stakeholder groups;
- consult all relevant stakeholders;
- upgrade the consultation plan;
- finalize the terms of reference of the EIS.

¹⁹ International Finance Corporation, op. cit., p. 30.

Is this enough? Although constant efforts are being made to improve the mechanisms that are part of the EA process, the results have not reversed the feeling that the process is inefficient, which leads in some cases (especially among citizens) to wish for it to be reconsidered. For companies, the situation is not much different. Their position with respect to the EA is often that of simply fulfilling a legal formality.

The question remains: What is causing the loss of confidence of residents in a preventive environmental management instrument like the EA? There are various reasons. Earlier, we addressed the conceptual and operational deficiencies of this management instrument. We now refer to deficiencies that derive from the situation of the country and set out recommendations that may, although only temporarily, prepare a better setting to improve effectiveness of the EA process in a participatory scheme.

When we ask different actors about the reasons for not trusting this process, there are many answers. These can be grouped into those that refer to the system itself and those that refer to the external process issues. Some examples are:

- *Relating to the system*
 - insufficient or non-existent terms of reference;
 - not incorporating the social element in the EIS;
 - absence of a sustainable vision;
 - lack of citizen participation;
 - lack of a formalization of all the stages of the process;
 - a bulky baseline against a weak management plan; and,
 - absence of monitoring and overview mechanisms.
- *External to the system*
 - limited trust in institutions;
 - the perception that there will be no benefits;
 - fear of losing the land they occupy;
 - unfavorable history of the development of productive activities;
 - the sensation that the activity will not promote development in the area; and,
 - frustrated expectations.

The mining operators attribute the situation to: poor understanding by communities or landowners of the importance of the mining activities as a motor for national development; fear of governmental agencies to confront and solve with determination conflicts which arise; and participation of some NGOs that raise expectations among communities, among other reasons.

What is evident is that a mutual relationship of distrust exists, originated, in countries like Peru and Mexico, from an ancestral mining activity without clear social and environmental rules. Although recently environmental and social regulations related to mining industry have been developed, this has not been enough to revert this lack of confidence. On the other hand, there is also limited understanding over land rights of communities and their extension. Some difficulties are mentioned below.

5.1 Promotion of investments²⁰

Latin America was characterized during the past decade by aggressive investment policies. According to CEPAL,²¹ transnational companies nearly duplicated their participation in the 500 biggest companies in Latin America between 1990 and 2000, nearly tripling their sales. In this setting, participation of foreign investment in the mining operations also grew in countries like Peru and Chile. The percentage of exports from the primary sector of the region went from being 30% to a 45.7% from the total of exports, which is significant compared to other sectors. In Peru, in 1998, mining exports were US\$2.706.8 million, out of a total of US\$5.735 million in exports, and in Chile, US\$6.481 million, out of US\$14.831 million in exports. In Mexico, mining exports were US\$2.112 million out of a total of US\$117.325 million in exports.

20 Pulgar-Vidal, Manuel, «Inversión y ambiente hacia un necesario equilibrio». Lima: Calidad & Excelencia año 4, número 16 (edición internacional).

21 CEPAL y ONU. *La inversión extranjera en América Latina y el caribe. Panorama Regional, 2001.*

During the 1990s environmental awareness of citizens grew, and there were significant advances with regards to State environmental policies. In the private sector there were also substantial changes. The use of environmental management tools like the EIS is a common element that has been made part of the regular planning process of companies. The orientation towards cleaner production processes and the demand for certificates for adequate environmental management has been emphasized.

The promotion of investments in most Latin American countries is a clear reflection of a new economic orientation: strong investments in mining on the part of European, American and even Australian companies; large telecommunications conglomerates in the hands of the biggest companies in the world; oil exploration and extraction developed by the leading companies in the field. Many of these investments come from companies that have their capital in developed countries (due to reasons we will not discuss in this publication) where technical, political, legislative and institutional environmental issues are more advanced than those in developing countries. The shareholders, and in some cases current rates in the stock markets, are also features of large investment companies. Management *performance* is now not the concern of a few, but has become a collective concern.

These factors generate in the foreign investors a greater disposition to comply with environmental demands of their countries of origin, which are usually greater than the ones required by the countries where they will invest. There is an inclination to satisfy society where environmental matters become a concern. In this context, the existence of an adequate legal and institutional framework for environmental protection and the conservation of natural resources in the countries where investment will take place becomes more of a requirement than an obstacle.

However, although many would agree with the above, in the majority of cases, experience shows that the investor tries to escape rigid environmental regulations of his own country to invest in countries with more flexible legal frameworks. In these cases, the search for an effective business sector, the role of NGOs and society, as well as the commitment of the State, are fundamental to ensure environmental issues are incorporated into investments and avoid the development of certain extractive activities that exhaust resources, deteriorate the environment and generate negative externalities.

An adequate policy for promoting investment, must always take into account that environmental and social factors are central to sustainable development—as important as economic growth. By not doing so we generate what is called «spurious growth».

This is exactly the problem which generates a «difficult contextual situation». The promotion of investments and privatization has failed to generate confidence, particularly in the poorest populations, because these have not been reflected in major local development or in policies that promote development in towns and communities where operations take place; it has not involved solutions to environmental liabilities; new jobs have not been generated; and, in some cases, it has meant the involuntary relocation of their homes.

It is fundamental that this reality be understood in order to improve the participation processes in the EIS and as part of the EA. In the *scoping* phase of the EIS, express references must be included with respect to the consultations on environmental liabilities, issues related to relocation and a plan for local development duly consulted with the residents.

5.2 Dependency on the mining activity

Without doubt, in the majority of Latin American countries the most important economic activity currently is mining. Therefore, the State must prioritize the design, elaboration and enforcement of policies directed to the development and regulation of such an activity in all its aspects, including environmental protection and sustainable development, both of which go hand in hand with effective and determinant citizen participation.

In many of these countries, activities developed by communities are not very profitable for the State and represent a lesser income for the business, as in the case with agriculture in comparison to mining. It is said that mining generates an income ten times that of agriculture, even though the figures are relative; agriculture is a direct income for the farmer in contrast to «rent»²² for the regions from the mining activities. The latter is profitable for the State (even if very low), but not for the community.

The logical consequence of the State being dependent on mining activities – as the main source of resources at a macroeconomic level- should be the generation of social programs to fight poverty, the provision of adequate environmental, social and economic plans for the management of mining projects. In addition, it should promote investment by companies and the State in early citizen participation projects during the *scoping* phase when the population can become aware of the project, develop trust in it, and establish solid links with companies and government agencies.

Another possible option is to establish local development funds, although this is not the only alternative. As mentioned previously, it is critical to include a local development plan which may be subject to consensus as part of the EIS.

5.3 The poverty situation

The fight against poverty can play an important role in defining policies directed to improving the existing unequal situation between mining operators and the community. These policies should be analyzed and evaluated before establishing strategies to fight poverty.

The main question when assessing poverty and environmental issues is to what extent do environmental problems originate from conditions of poverty or are these conditions a product of environmental deterioration. Certainly, the debate with regard to this question would mean another parallel publication.

If we think of an old mining activity with a poor environmental *performance* in a poverty area, we could assume that its situation worsened water and air quality, depending on fluctuations in the prices of minerals. However, we could also conclude that poverty, the urgent need for source of income and limited consideration and priority of environmental quality (based on the limited knowledge of the importance to health), contributed to a mining activity that has a poor environmental *performance*.

A different example is that of a new company called Compañía Manhattan Secura, which operates in Tambogrande, Peru. There, even if a defense group still exists opposed to the development of the mining industry, this group does not necessarily represent all of the population. One sector believes that the mining activity is an alternative to local development, recognizing however, that the environmental impacts this can cause and the consequent deterioration of local lifestyles.

The assessment is different when we refer to the direct use of natural resources by the same residents. The examples can be diverse: agricultural, forest, and fishing activities among others. The conditions of poverty promote the intensive use of resources, with poor technologies and practices that are not necessarily adequate, and result in a loss of the resource base, which at the same time aggravates the poverty conditions.

Mining, as well as the ceasing of the activity when it is no longer economical, may deepen the conditions of poverty and seriously affect the lifestyle of the poorer and most vulnerable sectors. However, mining activity itself can also cause poverty as it decreases the population's quality of life, causing damage to the environment and health, when it is developed without the minimum guarantees for a clean performance, and a suitable closing plan of the project. Therefore, it is necessary to set out agreements between those directly related to the mining activity (State, operator, community), with respect to the possible measures to be taken for the benefit of the population which might be affected.

5.4 The absence of political representation

An important question when analyzing environmental issues is where is the State. The real problem is that the vision for sustainability is not integrated, even though it has to do with economic growth, environmental protection and society. This vision is not integrated in a clear way by any of the actors previously mentioned. What occurs is that many activities are not carried out by the companies because they believe the State holds responsibility, while the State does not carry out other activities because they believe they are the companies' concern. Definition is needed so that when there is a company in

22 The canon is a payment made to the direct owner of the land by the person (or entity) actually exploiting the land. See: Cabanellas, Guillermo, *Elementary Legal Dictionary*. Buenos Aires: Editorial Heliasta, 1979.

a certain area, the State cannot put their primary responsibility aside — that of overseeing the well-being of the population, essentially regarding basic services.

In Tambogrande, for example, there is a conflict between a company that intends to develop an area and a population that opposes this development. This is a clear problem that stems from the lack of State leadership. For many years the State favored the development of agriculture in this area and, from one moment to another, without warning the community, it changed its policy in favor of a mining activity.

An additional problem is introduced when we see systems of political representation. In many Latin American countries, the populations feel they cannot count on adequate political representation, and often this is a reflection of electoral systems with territorial districts that are too large. The result is that the populations not only mistrust their authorities but also the political regime. The absence of direct representatives leads social demands to levels of political decision where credibility is very low.

It is not easy to combat this perception from an environmental-mining perspective. One alternative is to provide ways for inter-sectorial coordination, groups of technical experts and participation mechanisms that would compensate for the lack of representation.

5.5 Property rights

A fundamental strategy to combat increasing poverty from a legal perspective is the effective regulation of property rights, a situation that concerns Mexico because of the ejido land granted to the people, and Peru because of the conflicts for the use of land between the State and the communities. Salis affirms that:

... in spite of the effort to entitle land, tenancy is not very consolidated. Superimpositions of use still exist (agricultural and forest concessions) and free access land, specifically near the head of the basins where major degradation is concentrated (deforestation and burning), corroborates the importance to consolidate property rights to ensure sustainable management of the natural resources.²³

Considering the utility factor, can a right evolve towards acknowledging the right over land that spreads over natural resources? Or, can mechanisms be defined by which the superficiary receives a retribution for the richness of the subsoil under his property? Changes of this nature are not impossible but are not viable in the short term. Therefore, it is essential to bring about a conceptual debate on this and, during the course, establish voluntary mechanisms where a fair treatment involving the capacity for mining development in a sustainable manner would prevail.

This equitable treatment should compare property rights of those living in the city to those of native or indigenous communities far from urban areas, but near an economic activity:

In the case of the poor living near urban areas, the formalization of housing property is very important. The recognition of the property allows access to credit through the possibility of mortgages and creates incentives for investing in property. Therefore, the efforts to entitle land are a correct strategy.²⁴

Parallel to the management of voluntary mechanisms, the existing formal mechanisms, which refer to the extension of property rights on land for the extraction of the natural resources, should be revised.

23 Salis, Anette, «Pobreza y medio ambiente: externalidades positivas y negativas en economías campesinas andinas. En: El problema agrario en debate – Sepia VIII. Lima: Sepia, Julio 2000, pp. 374-375.

24 Instituto Apoyo, reforma del Estado. Lima: Instituto Apoyo, 2000, p. 23.

6. Formal and informal mechanisms for citizen participation

6.1 Role of the law and other formal mechanisms

The legal recognition of citizen participation mechanisms in the EIS of the mining operations goes from incorporating general mechanisms of citizen participation, through participation mechanisms in environmental management, to specific mechanisms of citizen participation in the mining EIS. The objective of each of these mechanisms is to allow access to appropriate and suitable information for proper decision-making with respect to a mining project.

The law fulfills a fundamental role, since it demands that an EIS take place conscientiously and that in practice, this be carried out through formal supervision and monitoring mechanisms. In countries such as Peru, the level of requirements for the baseline study carried out by the company, as well as in the later EIS, is less than in Canada, as we have learned from the case of the Canadian Aquarius Mine. However, these in practice must be strengthened in practice by the community.

The question that arises from the analysis of the legal mechanisms is whether mechanisms like the EIS are necessary. Our conclusion is that yes, it is, but only if it is accompanied by an effective and early system of citizen participation, allowing for environmental, juridical and social-economic arguments in which public opinion will be taken into account. We believe in the EIS as a formal mechanism of environmental management and that it should be strengthened using the experiences and the recommendations presented in this publication.

When one thinks of formal mechanisms, we immediately refer of legal mechanisms. It is quite usual to comment about the ineffectiveness of the legal frameworks and the responses to this perception can be given from two approaches:

- The absence of complementary mechanisms to the legal framework, such as solid institutions, citizen participation mechanisms, financial resources and good political will.
- The essence of legal regulations. A legal norm is that for which «an assumption of a fact» generates a legal consequence. The central point is how this consequence can generate some type of incentive to ensure its compliance. These incentives should consider the rational nature of man and his desire to maximize his own benefits. Additionally, «transaction costs» involve relationships between the parties and its general principles should be taken into account. In this reflection one should always ask whether the activity to be regulated can produce damages. If the answer is affirmative, the questions are then whether the private sector can avoid that damage, if alternatives to the regulation exist, and if the benefits exceed the cost of regulating. Many times these considerations are omitted and the rules end up as inapplicable in practice. Therefore, this document gathers suggestions of informal and formal mechanisms to improve citizen participation as part of the EA process.

6.1.1 The environmental impact study

An comprehensive mandatory assessment of the project should be undertaken by authorities, where the social-environmental impacts should be considered, such as the modification of the common uses of natural resources or the use of national goods that would affect social groups, damage to the health of the people settled previously and the relocation of settlements. All of this should be based on existing rules that need to be implemented and regulated.

The scoping phase (preparation and analysis) of the EIS should consider a prior consultation with communities. For this, it is necessary to identify all involved parties: communities affected directly or indirectly by it, the representative organizations, the people whose acceptance would be vital or whose exclusion would prevent the development of the activity and the organizations whose knowledge of the environment or people affected could help to ensure appropriate decisions.²⁵

The environmental assessment for mining exploration cases should be done through a partial EIS, subject to certain conditions of the EIS for extraction.

²⁵ Tobin, Brendan; Flavia Noejovich y Carlos Yañez, op.cit.

We need to think of a new and creative formal mechanism to integrate the different elements of sustainable development and consider and review all these points. The information provided by the companies is sometimes not very clear or sufficient, but once again the problem is the capacity of the residents to understand it. This means that some of the elements of the EIS should be simplified, using a basic and familiar language so that the communities can understand it. Finally, perhaps the development of a low cost consultation process might be required.

6.1.2 Costs and sanctions originated from environmental damage

The system for civil, administrative and criminal liability on environmental matters should be strengthened, by increasing economic sanctions so that they reflect the cost of environmental damage and contribute to discourage all of those who fail to comply with environmental legislation.

Audit and inspection firms should be in charge of monitoring and enforcing social obligations contained in the EIS.

It is necessary to create a public fund that civil organizations can tap to obtain resources to carry out environmental impact assessments on projects that represent a risk. Many times, the reason civil society is at a disadvantage is due to economic reasons.

6.1.3 Transparency in the environmental impact assessment

Transparency is critical. Many times there is the risk that the authority could influence the position of communities. On other occasions, the public has access to a great amount of information that it understands, but their opinion is not taken into account in the decision-making process of the EA.

In the case of the Aquarius Mine, for example, the proponent prepared a comprehensive study that was understood by the public. However, this report (which included the environmental plan of the mine) was done without carrying out a prior public consultation.

The management plan of the EIS should be shared through clear language with representatives of the surrounding communities in order for them to adequately understand the mitigation measures of the activity.

6.1.4 Legitimation to access the administrative process

Under comparative law grants actions for the defense of the environment are public actions. In distinction from other actions, these grant persons legitimacy (legal standing) to initiate an action, even in the case where their economic and moral interests are not affected. They also allow non-profit NGOs to intervene in processes to defend the environment.

However, citizens' rights to activate jurisdiction and force administrative decisions at all levels confronts limitations of an institutional character. In some cases, we confront the duplication of systems: federal-provincial or federal-state, as in the United States, Mexico and Canada; and in others when dealing with a unified, central system like in Peru and Chile, to the weakness of the State agencies.

On the other hand, these difficulties are accompanied by a limited public awareness of the right to a healthy environment or unawareness with respect to the actions to be taken to safeguard this right. The lack of economic resources, not only by the population but also from by non-profit organizations that seek to take part in the administrative process, is another important factor for why such actions not to take place.

Citizen participation in the EA in mining faces great challenges with regards to active legitimacy in judicial processes or in administrative procedures. Although the population is granted the power to access justice based on their diffuse interests, in reality, such interests are rarely recognized by the judges or state entities; and if they are, legal gaps exist during the process that do not guarantee the successful exercise of a public action for the defense of the environment.

Regarding information on a mining project, citizens that reside in the area of a project or surrounding areas are often denied the information as authorities rely on a public register to determine who can have access to the information. One example of this is in Canada, where at a federal level one can resort to a public

register of people authorized to request non-confidential information that environmental authorities hold. Some steps to improve the rules that govern active legitimization in the process are: the dissemination of formal and informal existing mechanisms, training the population, raising awareness about existing environmental problems in a community, and the strengthening and establishment of technical and legal capacities for the defense of the environment.

6.1.5 Access to information and justice

The main objective for the legitimate exercise of a public action in defense of the environment is to have access to the timely and adequate information of environmental impacts –negative and positive- contained in the EIS, or, on the contrary, have access to suitable legal mechanisms to achieve this. The rights to the access of information and justice are vital to ensure a series of inherent individual rights. Therefore they are contained in the political constitutions of the majority of authorities states and form a part of the customary law of others.

Access to information is the right of persons to receive from relevant authorities (in this case environmental), non-confidential information or information not protected for national security reasons. Those who receive such information should use it adequately.

In Canada, access to information at a federal level is provided for in the Access to Information Act, which sets out the terms and process for the applications for information from federal authorities. There are also provincial laws that establish mechanisms to access information held by these authorities. Common mechanisms exist at a federal, provincial and international level on access to information and justice, which in some cases generate problems of the EA or when joint panels are to be carried out of the same case. In 1998, this caused an agreement to be adopted between the federal government and the provinces to unify processes on environmental matters.

A major problem with the environmental impact process is that it is centered on environmental impact and not sustainable development. In the United States, a source of conflict is jurisdiction, because sustainable development concerns different agencies. For example, in Montana, the state requires management plans of economic and social impacts apart from the EA process. Nevertheless, these plans are an essential requirement to obtain the permission for mining operations.

On the other hand, access to justice is a right people have to access to opportunities –in this case related to the environment at an administrative level or through the judiciary– to exercise their right to defend the environment. In this particular case, it may be an action to defend their right to access information from EIS.

In United States one of the most frequent mechanisms is judicial review, where citizens can challenge administrative decisions in a court of law when a citizen suffers a legal wrong, or is adversely affected or aggrieved, by agency action. Another frequently used mechanism is the citizen suit, which allows the public to sue the government when a statute is not properly enforced or employed or to sue a company that has failed to comply with its environmental permit. This mechanism allows a citizen or a group of citizens to bring an action against the government or company.

In Canada, judicial review is not very frequent since this procedure is very expensive and citizens are concerned that an adverse resolution may result, which would result in significant expenses for litigation. Other legal mechanisms are private criminal actions, which may result, in the case of an offense being committed, in a penalty of which half is covered by the private plaintiff and the civil action for reparations for the damage caused by a mining operation. Citizens' litigation, criminal and civil, is not very frequent due to high costs of the process and its procedural difficulties.

6.1.6 Public consultation and basic elements for opportunity and extensions

In Canada, the general principle is that «the more extensive the evaluation is, the more opportunities the community will have for comments.²⁶ However, these opportunities are discretionally ruled by the federal

²⁶ See in the Country Report of Canada, the environmental assessment federal regime.

environmental authority. Most culminate in the first stage, selection of the project, where the decision as to whether the project will proceed is made without the need for a comprehensive study.

Public consultation can be an important outlet in the face of conflicts between local people and a company generated from limited communication and mistrust. One important example of this is the public consultation that took place in Tambogrande on June 2nd 2002 which arose from the initiative of the Mesa Técnica de Apoyo. This consultation, called «local consultation,» was brought forward on the basis of a legal municipal rule, was undertaken in the presence of international observers, as well as other national and international organizations, and was monitored by the Human Rights Defenders. The result was surprising: 93.9% voted against a mining activity in that area.

One of the most important lessons from this process is the need to develop consultation mechanisms as part of the process for carrying out projects that have relevant impacts on issues, such as the development of an open pit mine or involuntary relocation of communities.

6.1.7 Public hearings: how to guarantee that contributions are incorporated?

Public hearings are one of the most significant advances on environmental matters and citizen participation. Nevertheless, as a part of the confidence building process that should be built within communities surrounding mining projects, some adjustments must take place to eliminate the following problems:

- access to the executive summary and not the complete study;
- time limit to carry out the review;
- limit public hearings only to legal persons (entities);
- methodology of the meeting that prevents the exchange of opinions;
- holding hearings far away from the involved community; and,
- holding hearings only for some projects.

These conditions limit communal participation in the public hearing process, which makes the participatory instrument less effective.

A public hearing may be the most important institutional opportunity to guarantee the maximum flow of information between actors of society and authorities with respect to the decision in question.

For example, in the case of the Aquarius Mine, it was proven that the knowledge local residents had on the mining activity in their area allowed for citizen participation to fulfill its role as a verification and balancing mechanism. However, a lack of awareness of mining projects in other towns like Tambogrande or Cananea (in the Mariquita Mine in Mexico) generate mistrust before the public hearing even takes place.

A special legal regime should also be established for environmental impact assessment of mining projects where : public hearings are considered compulsory, the authorities are obligated to respond to petitions, the project may be cancelled if there are legitimate reasons and mitigation measures are assessed through a cost-benefit analysis.

The formalities to convene citizen participation meeting should be provided: what information should be provided by the respondent, what formalities should govern the presentation of the observations and how they should be included in the record of the project, in which cases may communities request the suspension of an assessment procedure, and, finally, in which cases the authority should organize a general consultation processes and who can request the suspension of a project and the formal requirements to undertake this.

To make the public consultation process stronger, authorities should contract a facilitator for the process and the expenses should be covered by the concessionaire of the project. The process should be transparent and public and not generate fear within the population. It should rely on independent experts who are not related to the mining company or the authority.

The proponent should require consultation at an early stage of the process through which the local residents, the land users, and environmental NGOs can also influence the project at early stages.

The public hearing should take place in the state capital and in the town where the project will be carried

out, allowing access to the EIS, and not only the executive summary, and with a mechanism that allows adequate exchange of opinions.

The effectiveness of citizen participation in EA depends to a great extent on the familiarity citizens have with the mining industry and its environmental impacts. This is also important if the mining activity takes place in areas where people live and work, like Tambogrande, where the main economic activity is agriculture.

On the other hand, a public hearing should be a compulsory mechanism when developing the EIS and not an optional alternative proposed by the environmental authority. It should also be regulated within the development stage of the EIS as mentioned before. Some criteria should be established to determine the importance the competent authority will give the observations made by the community and how they will be evaluated.

Finally, citizen participation in the EA process could be strengthened to comply with the objectives we are seeking. Many times the community cannot benefit from these due to the following problems: (1) the inflexibility of the legal mechanisms and their limits; (2) the pressure from authorities for the projects to be approved; (3) a lack of understanding of rights and of the EA process, which, in the case of mining, refers to its effects in time; (4) the lack of resources to participate.

6.1.8 Publicity of the process and appropriate warning

In the Canadian federal regime, citizen's comments are compulsory only if the project is part of a comprehensive study. For this, the environmental authority must provide notice as to how and when copies of the environmental report may be obtained and the time limit to present comments, setting a reasonable time for the citizens to send in their opinions and, in due time, reach a better decision. The environmental authority will have a public register of the citizens linked to the project.

If they do not reach an agreement on the initiation of the project, it could be referred to a panel for review or for solution through mediation. If the project is submitted to a panel, citizen participation would be limited to the mere review of facts, as comments are not permitted at this stage. Therefore the panel option is the least attractive for citizens.

It is important that all the relevant information on the project reaches citizens before the project is executed and the hearing is held in order for a reasonable dialogue to take place at the moment decision-making with respect to the project takes place.

The publication costs of an EIS can prove to be an impediment for effective citizen participation. The state must always have this study at the public's disposal, without letting the public assume the costs of basic information needed to present arguments regarding the project. It should be established that the publishing of the EIS (or an executive summary) in the official journal of the state or any other widespread means of communication, such as electronic media, should be compulsory for the different NGOs and society to monitor compliance with the approved conditions in the project.

6.1.9 Mechanisms and international forums

Jurisdictional and non-jurisdictional international mechanisms exist, as well as a series of international forums, where problems referring to the protection of citizens' rights linked directly or indirectly to the environment are tabled. One of these is the Commission on Environmental Cooperation (CEC), which can be accessed by Canada, United States and Mexico by virtue of the North American Free Trade Agreement (NAFTA). Through this forum, resolution of conflicts generated from noncompliance of environmental regulations can be sought.

Chilean, Mexican and Peruvian citizens can resort to the Inter-American Commission for Human Rights if their right to property or access to land has been violated. However, even if sufficient active legitimation were permitted (for citizens and non-profit NGOs), protected rights need to be included in the Convención Americana de Derechos Humanos or in the Declaración Americana de Derechos Civiles y Políticos. They only include Members States of the Organización de Estados Americanos (OEA) and the only cases which reach the Court are those of States which have acceded to its contentious jurisdiction.

Among the most important international forums on environmental matters, the Conference on the Environment and Development, which took place in Rio de Janeiro in 1992 stands out, which provided Agenda 21 and a plan on effective citizen participation mechanisms at the national and international levels. Recently, in Johannesburg, the Second Conference on the Environment and Development - called the –Johannesburg Summit– took place, where the importance of environmental management mechanisms and citizen participation in the decision-making process was highlighted.

6.1.10 Participation programs, methodological guides and early citizen participation

One of the main guarantees for the practice of responsible and timely citizen participation is the setting up of participation programs through responsible, accessible and suitable petitions. The Comisión Nacional del Medio Ambiente (CONAMA) in Chile is developing through regional and inter-regional projects that seek to provide information that allows people to express their observations on the projects and generate space for people, groups and/or communities with fewer possibilities to access information.

In Canada (mainly at all provincial levels), very few opportunities for early and preventive participation exist. In general, these are after the approval of the project. Guidelines on early citizen participation do not exist. However, in Chile, CONAMA has developed guidelines on early citizen participation in the context of the environmental impact assessment system. The object of these guidelines is to avoid conflicts between local people and companies or fears and mistrust at the beginning of the project, as these are difficult to overcome once they have arisen, as has happened in Peru between the Manhattan Company and the residents of Tambogrande.

6.1.11 Legislative hearings

Legislative hearings are a common participation mechanism in the United States, that allow citizens to individually comment on a draft law or a law already passed during the hearing conducted by the legislative chamber. This practice is challenging in other countries because of the difficulty to access Government activities, either because they are far away or because of the rigorous procedures needed to be followed. However, this can also occur in the case of legal norms at an administrative level, where access is not so strict.

6.1.12 Legislative initiative

The legislative initiative is a mechanism that permits citizens to propose laws following a series of requirements set by the Political Constitution of the country and the law. In Peru, the legislative initiative is a constitutional right that allows people to present draft laws before Congress. They must be accompanied with signatures of no less than 0.3% of the national voting population.

6.1.13 Advisory committees and technical groups

The Canadian environmental assessments of comprehensive studies sometimes include different types of citizen participation, such as «open house» meetings, advisory committees, liaison offices or visits to the areas. In the case of Aquarius Mine for example, there were «open house» meetings before and after preparing the comprehensive study report. These meetings would bring all the actors involved in the project together with a group of experts and technical advisors, the majority financed by the company.²⁷

On the other hand, the Consejo Nacional del Ambiente (CONAM), the organization in charge of coordinating environmental trans-sectorial policies in Peru, can create and convene technical groups, private and public multi-sectorial events, to develop proposals for operation, application and assessment of environmental management instruments. It can also propose solutions in the face of environmental conflicts, (*de officio* or upon request) which permits people to request alternative solution mechanisms, such as mediation or conciliation in environmental matters.

²⁷ In the case of the Diavik Mine for example, the company provided the amount of CNS\$750,000 for the public to invest in technical advice.

6.1.14 Access to land

Access to land is understood as the right citizens have to choose the economic activities to be developed in their community or surroundings. One example is Tambogrande, where (as mentioned before) a conflict has generated because the population opposes mining. They want to continue developing agriculture. It has not been shown that both activities can coexist in harmony.

6.1.15 Referendum

Referendum is a process used by some countries to set up laws or submit the existing ones to a vote of the citizens for their approval, modification and derogation at a legislative level. It is a general mechanism and can be used for a wide range of legislative matters, including environmental issues.

6.2 Capacity to create new informal instruments

Due to the lack of a legal framework that stands out for its legitimacy and effectiveness on important issues such as environmental protection and citizen participation, new management instruments are emerging via the informal route. Although it is important to strengthen the EIS as a management instrument, it is also important to develop in the short term voluntary mechanisms; it has been demonstrated that there are cases where these informal instruments (for example, in the Maria Mine in Mexico where negotiation mechanisms are used), are legitimized by the parties involved.

6.2.1 Social responsibility and sustainable development

If we focus on the goal of sustainable development, we conclude that this can be reached when economic, social and environmental protection development policies are balanced. At the moment, in the mining sector there is a strong emphasis on the first element, an interesting development on the third, and a disturbing absence regarding social aspects. The owners of mining activities reasonably demand that the State be more active in social development through clear decentralization policies, institutional strengthening, education, health, etc.

In a sustainability scheme, mining operations perform in an economic sphere, where the benefits are only distributed amongst a few; in a social sphere, where there are constant conflicts (ghost populations, poverty, disputes for the land); and in an environmental sphere with serious contamination problems and considerable, unmanageable environmental liabilities.

Responsible participation means that civil organizations are established, work in a responsible and transparent manner, and have the capacity to efficiently participate in public debate with technical competence. Responsible participation can be strengthened by means of education, training, access to information, technical assistance, and a regulatory structure to facilitate the establishment, financing and operation of diverse NGOs, while encouraging fiscal responsibility, transparency and the accountability of actions in the face of society.

The relationship between local communities and mining companies is consolidating as a field of analysis of great interest, as a valid criteria to assess the quality of mining investments, and as an opportunity to guarantee sustainable investments. This relationship is dominated by unilateral visions and perceptions supported in the denominated «indigenous paradigm», that exacerbates the duality between what is Andean and Western, and seriously hinders the possibility to create a new ideological framework that allows the symbiosis between both cultural paradigms.

A developing vision, that has as one of its premises the conservation and creative use of cultural and biological diversity, demands the reconsideration of our approach to agriculture and rural development, not because agriculture and mining are necessarily incompatible nor because one should replace or eliminate the other, but because alternatives to the excessive dependency that Peruvian economy has with regard to mining exportations must be considered.

The roles of authorities linked to natural resources, need to be redefined in order to avoid that one authority, in this case the environmental authority, be the one to assign the resources to private investment

and regulate and sanction. A new institutional scheme for the management of natural resources should separate this role to define and enforce from the role that assigns resources and regulates resources. It should include formal spaces for the resolution of conflicts in cases of conflicting priorities between the sectors to avoid having the companies or private beneficiaries be the ones to resolve the uncertainties of local communities and offering more legal certainty to investment.

The principles that support conflict resolution involving the State, companies and communities and allow solutions to reconcile and avoid unilateralism are: (1) good faith; (2) timely performance; (3) undertaking process in the area; (4) a clear definition of the actors involved and of pre-established procedures; (5) creating spaces for the exchange of key information; (6) the possibility of including significant changes in the project; (7) and including the real concerns and interests of the parties.

In this sense, a fundamental requirement to encourage social responsibility of companies is that the State invests in infrastructure such as: (highways, schools, medical facilities, etc.) and in reliable information centers on the investments and their potential effects. In principle, the company should not carry the burden of social frustration generated by the absence of State investment. The ideal scenario would be for the State and companies to carry out joint investments, the company taking on a subsidiary role in, for example, completing investments that the State cannot cover.

6.2.2 Public activism

In Canada, there are diverse non-governmental agencies related to public activism on specific issues (like environmental problems generated by mining), that work in areas such as training, the dissemination of information, legal and technical advice, and the defense in civil and criminal actions filed against companies.

In Peru, an example of public activism is that of Colectivo Tambogrande, an organization that sought to raise awareness among the population and generate a greater interest on issues of citizen participation through campaigns with the aid of bulletins, posters, plays, flyers, media, etc.

6.2.3 Capacity-building

The success of the EA process depends to a great extent on administrative and environmental capacities of those who develop and assess the EIS: public institutions.

Currently, there is no capacity to assess environmental impacts; therefore, we must highlight the need for EA training, as qualified personnel is needed to manage environmental units of projects and supervise and control environmental aspects of their development.

When a company works in a certain area and satisfies communities with an important development with the purpose of developing its resources, a local training system should be developed to help people understand the significance of the activity. The company and the State should offer precise advice to help people understand what will happen with the activity, what environmental impacts it may generate and how to mitigate these impacts.

Sometimes, a construction which is not linked to development is financed, like a bullring or television antenna. This is very common in our country and can be the result of an old paternalistic tradition by companies that do not generate development. Fortunately, some companies are already focusing on what we call social responsibility mainly because communities have not been in the capacity to plan development.

Strengthening of environmental capacities is needed in all fields, not only during the execution stage of the mining project, but also in agencies and other departments and ministries of the government. Thus, a project can be analyzed adequately and the appropriate decisions made on the strategies, policies, legislation, and environmental organization of the mining sector.

Normally individuals developing the EIS, following the company's terms of reference, are consultants. However, the company is not always capable of directing the work of these consultants and analyzing the environmental assessment in order to carry out its recommendations. Therefore, there is the need to develop these skills in local experts, to include them as part of the team of environmental consultants who develop the EIS. This is the only way they will learn to prepare and apply such a study.

There should also be an exchange of information between the authority and the different community groups (on environmental matters) and the academic world (to thoroughly and independently involve them in the assessment and monitoring programs that include periodic audits).

The results of the EIS and audits must satisfy environmental needs and sustainability. The lack of preparation or management capacity of public institutions and political and economic pressure, many times do not permit recommendations to be put into practice.

It is hard to formally change laws to include all these objectives into the EA. However, there may be a path to establish voluntary compliance so that companies can promote different types of dialogue and agreements. In terms of capacity-building, the big question seems to be who will be responsible for financing (the Government or the companies) and to whom it should be directed. Sometimes there are conflicting views and it is not clear who represents communities.

In Canada, there are NGOs with the capacity to offer technical assistance to local residents and landowners; but their resources are limited. In some cases, the federal government provides the public with the funds; although, this is only in special cases. In Canada, the goal of improving sustainable development is not explicit in requirements for citizen participation in the EA process; here, the federal government reviews the proposal and the town's comments, guided by the relevant environmental impact problems. The margin for approval is that it be a «relevant impact». There are no initiatives to improve the requirements of sustainable development. The result is that public problems of sustainable development are frequently not considered relevant.

This is important for our discussion because citizens may expect that the government is concerned about sustainable development, when this issue does not influence their decisions. The initial mistrust can make the situation difficult because it increases the distance between what the people believe and what the process really is.

Finally, other important points are the lack of compliance with voluntary agreements; divorce between the expectations of the community and the environmental assessment process; and the inflexibility of regulations.

6.2.4 The «Good Neighbor Agreements»

The Good Neighbor Agreements are established between a community and the mining operators that want to use the land located near or within the community's jurisdiction. This mechanism was used, as mentioned before, for the Stillwater Mine (Montana, United States), where citizens managed to obtain what they could not through traditional legal mechanisms –federal and state–, that is the establishment stricter rules for the benefit of health and the environment.

As demonstrated in Montana, through this kind of agreement innovative mechanisms for citizen participation, access to information, and participation in decision-making can be established: These may include recourse to skilled consultants that can represent the people in the monitoring and inspection of mining activities, the right of citizens to review administrative documents of the company –permits, licenses, modification of the management plans of the mine, etc.– and financial support for technical and scientific consultants to carry out environmental audits.

However, these kinds of agreements work only if based on solid formal and informal foundations. In Montana, the experience was a success because formal mechanisms were combined with media campaigns, and because the councils representing the communities were solidly organized. It is difficult to predict if the situation would have been similar in another community, even in the United States. On the other hand, the experience shows that the formal mechanisms are still necessary to enable both parties to comply with their obligations. In Montana, they are working hard to guarantee that the obligation of the agreement is complied with.

6.2.5 Dialogue and agreement committee

Forming groups, like the Mesa Técnica de Apoyo a Tambogrande in the Peru case or Comité Técnico Académico in the case of the San Xavier Mine in Mexico, are important to balance the relationship

between citizens, companies and the State, and enable people to feel confident with these two institutions. It is a means by which people can indirectly relate to authorities, through dialogue and exchange of proposals, from qualified and specialized representatives.

Community development is fundamental. Although it is not the main task of the mining activity, it is part of their social responsibility. On the other hand, it is the obligation of the State as part of their development policies.

6.2.6 Workshops and working groups or sub-working groups

Workshops and working groups or sub-working groups are complementary and voluntary activities of early citizen participation. They allow and promote the development of a coordinated relationship between the company and the communities, because they make it possible to involve different actors linked to the project, as well as environmental technicians and experts, to find solutions to specific aspects of the EIA.

In the Escondida Mine case in Chile, informal mechanisms were used from the beginning of the activities due to the lack of effective formal mechanisms. A list was made of the key actors of the project and working groups were formed which regularly met to carry out seminars, panels, press campaigns, small publications and contacts with students and to support education and scientific research related to health and social development in the area.

6.2.7 Dissemination campaigns and public awareness

Dissemination campaigns and the creation of public awareness are informal mechanisms complementary to other formal and informal mechanisms, that seek to involve the citizens in the problems and impacts the project is generating or will generate.

6.2.8 Consultations

As an informal mechanism, consultations are carried out to understand the general opinion on different subjects related to an EIA in mining. It is not a binding mechanism; citizens can respond anonymously, direct or indirectly, through the media and without prior preparation.

6.2.9 Technical reports

An important example of a technical report is that of Robert Moran, an international expert in EIS, on the baseline study carried out by the Manhattan Company under the auspices of some private entities. As a result of the report, it was pointed out that the preliminary studies of the company were extremely inadequate and mediocre and did not comply with the criteria established by the Office of Environmental Studies of British Columbia, who would have had to undertake the assessment if the mining operation was located in its country of origin.

CRITERIA AND TERMS OF REFERENCE

I. CRITERIA TO SELECT THE CASE STUDIES

1. Objective

Ensure that selected case studies allow us to better understand the actual state of citizen participation in the environmental impact assessment process of mining projects in the five countries selected: Canada, Chile, United States, Mexico and Peru.

The criteria allow us to assess the degree of compliance with policies and standards for citizen participation and, at the same time, make recommendations to improve the effectiveness of this instrument in decision-making processes involving environmental assessment of mining-metallurgic projects.

2. Criteria

The following criteria allow us to homogeneously identify adequate cases to achieve the objectives of the project. However, these criteria should take into account the experience of each country. It would be appropriate to select other criteria based on the uniqueness of experiences in citizen participation in the EIS of the countries included in this project.

2.1 Location

It is recommended that the selected cases be located in different areas of the country. Thus, the following aspects could be evaluated:

- the similarities or differences in behavior of key actors in each citizen participation process;
- if the degree of centralization or decentralization of environmental authorities of the country influence the origin and development of the processes; and,
- the degree to which legal demands are met, as the actions of follow-up and control of authorities are not always homogeneous nor have the same significance in all the areas of the country.

It should be kept in mind that many times interesting experiences of voluntary or informal citizen participation take place due to excessive centralization on the part of the State or due to other limitations of the legal and institutional framework of the country.

2.2 Replicability

The selected cases should allow us to extract useful experiences for other processes. There is the need to take into account that *sui generis* experiences are not always useful (even though they may have been successful), because as they are very specific cases, they do not allow us to extract lessons from them. Therefore, by not being able to extrapolate to other areas or situations, the results lose relevance when elaborating recommendations for a project.

2.3 Representation

Cases should be selected that involve projects that because of their importance and magnitude could influence other processes. Isolated cases or unrepresentative ones are not usually taken into account by other actors. On the other hand, the majority of the population has expectations and are alert regarding actions undertaken by leading or more representative companies.

2.4 Extent of the process

One should try to select cases involving extensive citizen participation strategies at different levels or that have included participation mechanisms in different stages of the mining project. This would allow us to learn from them and obtain greater contributions to the objectives of this project.

2.5 Critical areas

It would be advisable that one of the cases refer to an environmentally critical area, with the purpose of assessing the degree of effectiveness of citizen participation mechanisms in solving or preventing conflicts. This would also enable us to assess whether such participation mechanisms are flexible enough to work in a normal situation and in a critical area, normally with greater complexities.

2.6 Different ecosystems

It is important that selected cases represent different ecosystems. We can then analyze the limitations and options of citizens' participation in different mining-metallurgic projects.

2.7 Lessons

It is appropriate for the selected case to have clear and well focused elements of citizen participation to extract lessons from it. Such experiences should differ from one another and ensure that from the complete study, one may be able to extract as many lessons as possible to improve citizen participation in the EIS of mining-metallurgic projects.

2.8 Potential impacts on the population

It is necessary for selected cases to identify what potential impacts the mining-metallurgic projects are going to have on the population. This is an important criteria if we take into account that depending on the magnitude of the impact, citizens will be more or less interested in participating in the environmental impact assessment process.

II. CRITERIA TO DEVELOP THE CASE STUDIES

1. Objectives

- identify the contributions or limitations of citizen participation in the EA of mining-metallurgic projects;
- identify the particularities of each process of EA, bearing in mind that citizen participation does not follow «general formulas or recipes» and, as a consequence, each participation process is unique;
- identify recommendations that may derive from these particularities.

2. Criteria

The cases should be assessed taking into account their legal framework, the degree of compliance with legislation and voluntary citizen participation mechanisms that were adopted. It is recommended one previously reads the «Matrix on central elements to assess citizen participation in mining-metallurgic projects», as this instrument synthesizes the main aspects of citizen participation that have been considered in this project.

Also, observe that citizen participation is not a formality linked to compliance with a legal mandate but a tool that influences to making the project subject to an EA more efficient, that helps in decision-making and improves the relationship between companies and citizens.

The following are some criteria for developing case studies:

2.1 Identifying the key actors

It is important to identify the key actors of the area where the project will be carried out and assess whether they participated in the strategy of the company. This is because in all citizen participation processes there are groups of people that must be consulted, otherwise, important knowledge may be lost and opportunities and benefits that represent the developed strategy may be wasted.

The key actors can be people who find themselves affected by the project and have important knowledge of the area: leaders and local authorities, researchers, NGO groups, consultants, among others.

2.2 Scope of the strategy of citizen participation

It is necessary to determine the extent of the citizen participation strategy, in order to assess the coverage during the environmental study stages (EIS DIA, MIA, etc.), the actors involved and the geographic range of the actions undertaken. This will allow the relationship which exists between the scope of the strategy and the results to be analyzed. In general, the wider the strategy of citizen participation, the better the results.

2.3 Opportunity and quality of the information

No strategy of citizen participation can be effective without the appropriate information being placed within reach of the collectivity in general, and the key actors, in particular. Citizens need to understand the project and particulars of the environmental study in order to make observations and recommendations. However, it is also necessary to consider that the information should comply with some basic characteristics, without which the results of the process of participation may also be affected.

The information should be timely and reach recipients in advance in order for it to be studied and understood before the participation mechanisms are undertaken. It should also be clear and be presented in accordance with the particularities of the recipients. The language and the way in which the information is presented will be different from what is used for a special audience, such as universities or investigators. Enough information should be provided to get a clear idea of the operations of the company.

2.4 Effectiveness of the mechanisms of citizen participation

Another aspect that requires a clear assessment is the relevance of the participation mechanisms used. The mechanisms should adapt to the sector and it should be kept in mind that residents are not a homogeneous group of people, but diverse groups with particular characteristics (language, cultural, academic, etc.). In this sense, the tools used to «get» to the key actors should adapt to their characteristics and conditions.

For example, in some cases, it would be convenient to organize a workshop, while in others it would be enough to provide project information through the radio or speakers placed in public plazas. Interviews and surveys can also be used with some groups. In this case, the neutrality of the questions should be assessed to verify that they do not have any influence on the answers. In general, the mechanisms to convene, to provide information, and to provide for participation, can differ substantially according to the recipient.

2.5 Company's commitments

There should always be a connection between the commitments made by the company to the authority and the citizen participation process that the company undertakes. Normally, when commitments adopted by the company during the process are not related to those made with the authority, there are more chances that the former will not be met. The commitments should be verified to see if they were agreed to verbally or if there is a guarantee to ensure their fulfillment (written agreements, record of the proceedings, etc.). The degree of compliance should also be considered to assess their repercussion in the results of the citizen participation process.

2.6 Confidence of the population

An important aspect to assess the effectiveness of a citizen participation process is the degree of confidence that citizens and, in particular, key actors have in the process. In order to ensure this to be a useful tool to introduce improvements in a project, citizens must perceive transparency and the will to consider their observations and recommendations in the process.

However, what should be considered is that such confidence does not imply that suggestions made during the citizen participation process necessarily be adopted by the company or authority carrying out the citizen consultation, but only that they be assessed and adopted if necessary. Citizen participation does not imply that residents make decisions; it gives them the real opportunity to outline their concerns. This aspect should be understood by the recipients of the strategy, and is one of the foundations for generating confidence on the part of the residents and ensuring good communication among them, the company and the authority.

III. TERMS OF REFERENCE

1. General Information

What is needed is a concise but clear summary of the scope, the different aspects and actors involved in citizen participation in the environmental assessment process of the mining sector of each of the selected countries: Canada, Chile, United States, Mexico and Peru.

2. Objectives

The objectives of the summary are to:

- provide a brief description of the environmental assessment process (EA) in the mining projects;
- identify and describe critical aspects of legal regulations that include citizen participation mechanisms in the EA process;
- identify and describe the relevant aspects of other legal regulations which, although not directly related with the EA process, provide opportunities for participation;
- identify spaces for formal and informal citizen participation, facilitated by the public and private sector; and,
- identify the formal and informal limitations of citizen participation.

3. Contents

The summary should contain a general description of the following aspects:

- the EA process of the mining sector in the country, including a «flow chart» of the stages of the process and participating entities. The description should include an analysis of the weaknesses and strengths of the process.
- the mechanisms of citizen participation commonly used in environmental management.
- the mechanisms of public participation that are expressly contained in the laws, rules and regulations that regulate the mining activity, with a particular emphasis on those provided for by the EA process.
- the opportunities that other laws, regulations and rules in general provide for citizen participation in the EA process of the mining sector.
- other formal and informal spaces for participation in the EA process of the mining sector, provided for by the private and public sector, making reference if possible to concrete cases.
- the successful experiences of citizen participation in environmental management of the country.

4. Summary

1. Introduction
2. EA Process
 - 2.1. Activities related to the application of mining legislation
 - 2.2. Description of the EA process
 - 2.3. Citizen participation in the stages of the EA process
 - 2.4. Authorities in charge of the EA process
3. Citizen participation mechanisms: citizen participation experiences in the EA of the mining sector

- 3.1. Citizen participation mechanisms used in the general environmental management of the country
- 3.2. Citizen participation mechanisms in the EA process
- 3.3. Voluntary or informal citizen participation mechanisms
4. Strength and limitations of citizen participation in the EA process
5. Conclusions

CHARTS

I. MATRICES ON CITIZEN PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENT IN MINING: CANADA, CHILE, UNITED STATES, MEXICO AND PERU

No.	SUBJECTS	CANADÁ	CHILE	UNITED STATES	MÉXICO	PERÚ
1.	The environmental assessment process (EA) is provided for in national legislation.	Canadian Environmental Assessment Act (CEAA) and other federal and state regulations.	Law No. 19.300 and Decree No. 30.	National Environmental Policy Act (NEPA).	Ley General del Equilibrio Ecológico y la Protección.	Legislative Decree No. 613, Code of the Environment and Natural Resources and other sectorial regulations.
2.	The process of EA has been organized as a system.	x	✓	x	x	x
3.	Activities included.	IND	<ul style="list-style-type: none"> All projects, works and/or activities should be submitted. 	<ul style="list-style-type: none"> An environmental study is required when there is a proposal for a federal action of significant relevance that would affect the quality of the human environment (according to the NEPA). 	<ul style="list-style-type: none"> A list is set out of the work and activities that are subject to prior authorization (there are exceptions). 	<ul style="list-style-type: none"> The competent sectorial authority will determine the activities that require an environmental assessment.
4.	Specific rules exist on citizen participation in general.	IND	✓	✓	✓	✓
5.	Specific rules exist on citizen participation in mining.	x	x	x	x	✓
6.	Guidelines or recommendations exist on citizen participation.	IND	✓	IND	IND	x
7.	A single authority exists that manages environmental impact assessment.	x	✓	x	Yes, at a federal level the states also have authority.	x

No.	SUBJECTS	CANADÁ	CHILE	UNITED STATES	MÉXICO	PERÚ
8.	Citizen participation mechanisms exist in the elaboration of the environmental study.	x	x	✓	x	x
9.	Citizen participation mechanisms exist in the review or approval of the environmental study.	✓	✓	✓	✓	✓
10.	Stages in which citizen participation can be implemented.	<ul style="list-style-type: none"> In the initial preparation phase (scoping) citizen participation is not required, however, the responsible authority could ask for some comments to be made (which could happen on rare occasions). 	<ul style="list-style-type: none"> Review of the environmental study. 	<ul style="list-style-type: none"> During the preparation phase (scoping) of the environmental study, notices can be published requesting the public to participate, to identify the potential impacts and alternatives that could be reviewed in the study. The participation of the population for the review and observations to the draft environmental study. 	<ul style="list-style-type: none"> Prior to the assessment in the consultation stage. During the approval phase of the environmental study. 	<ul style="list-style-type: none"> During the approval phase of the environmental study.
11.	Legally established mechanisms.	<p><u>General:</u></p> <ul style="list-style-type: none"> Appeal to the Commission on Environmental Cooperation (NAFTA) to present any claims related to mining. Implement standards related to mining, which require participation of citizens in order to obtain necessary permits to operate. Implement environmental standards, which 	<p><u>Specifics for the Environmental Study:</u></p> <ul style="list-style-type: none"> Programs of citizen participation. Guidelines on citizen participation in the framework of SEIA. National and Regional Advisory Council. 	<p><u>General:</u></p> <ul style="list-style-type: none"> Notice and comment rulemaking. Legislative hearings. Referendum. Judicial review. Citizen suits. Good Neighbor Agreement. Advisory committees. Administrative hearings. Public rights of access to information held by the Government. 	<p><u>General:</u></p> <ul style="list-style-type: none"> National Advisory Council for Sustainable Development (social participation). Challenges to administrative acts that violate legal standards. Complaints filed with PROFEPA. Right to environmental information. 	<p><u>General:</u></p> <ul style="list-style-type: none"> Access to information (protected by the action of habeas data). Right to citizen participation. Technical groups (work commissions). Legitimation to act in defense of the environment (diffuse interests). Legislative initiative. Right for petition.

No.	SUBJECTS	CANADÁ	CHILE	UNITED STATES	MÉXICO	PERÚ
		<p>require citizen participation in order to obtain permits when mining operations could alter natural elements.</p> <ul style="list-style-type: none"> · Access to information. · Private prosecutions. · Civil actions <p><u>Specifics for EA:</u></p> <ul style="list-style-type: none"> · Panel <i>review</i> for the determination of guidelines to be followed by the proponent and for the approval of the environmental study (the public could be invited to participate). · Plan of public consultation, when the environmental study is required to be more detailed due to its complexity. · Public register with a list of the environmental studies and an explanation how to access them.. 		<p><u>Specifics for the Environmental Study:</u></p> <ul style="list-style-type: none"> • Notice and comment rulemaking. • Judicial review of rules. • Notice and comment on permits. • Administrative appeal/judicial review of permits. • Access to information. • State provisions for bond releases. • Citizen suits for enforcement.. • Endangered Species Act. • Federal Advisory Committee Act 	<p><u>Specifics for the Environmental Study:</u></p> <ul style="list-style-type: none"> • Making the environmental study available to the public. • Public consultation. • The public meeting is not compulsory. 	<p><u>Specifics for the Environmental Study:</u></p> <ul style="list-style-type: none"> • Making the environmental study available to the public. • Public hearing during the approval stage.
12.	Free or voluntary mechanisms.	<ul style="list-style-type: none"> • Public activism. • Industry initiatives. • Impact benefit agreements. • Meetings. • Open houses. • Advisory committees. • Liaison offices. • Site visits. 	<ul style="list-style-type: none"> • Meetings with the residents. 	<ul style="list-style-type: none"> • Meetings where the draft of the environmental study can be reviewed. • Good Neighbor Agreements. 	Public Meeting.	<ul style="list-style-type: none"> • Pre-publication of standards. • Dissemination campaigns. • Commissions, workshops, groups or sub-work groups. • Consultations. • Interviews. • Surveys. • Publication of reports.

No.	SUBJECTS	CANADÁ	CHILE	UNITED STATES	MÉXICO	PERÚ
13.	The competent authority should establish and promote mechanisms that ensure citizen participation.	IND	✓	IND	✓	✓
14.	Limits to citizen participation.	<ul style="list-style-type: none"> Legal mechanisms have been established for citizen participation; however, these are not always implemented. 	IND	<ul style="list-style-type: none"> In the case of the judicial review, the process is limited to a review of procedural matters. 	<ul style="list-style-type: none"> Public consultation: decisive ability of the authority. A mechanism to review the resolution that approved the environmental study does not exist. Technical incapacity to assess environmental studies. Citizen participation has not been regulated. 	
15.	The presentation of the environmental study is published in newspapers	<ul style="list-style-type: none"> The environmental study is in the Public Registry. 	✓	✓	✓	✓
16.	The environmental studies and other relevant documents (for example executive summaries) should be made available to the public.	<ul style="list-style-type: none"> The environmental studies are entered in the Public Registry and the way to acquire these studies is included. 	✓	✓	✓	✓
17.	One can request the reproduction of the environmental study (at the expense of the applicant).	IND	✓	IND	Yes, according to the Ley Federal de Procedimiento Administrativo and provided the information is not protected from disclosure.	✓

No.	SUBJECTS	CANADÁ	CHILE	UNITED STATES	MÉXICO	PERÚ
18.	Presentation of observations on the environmental study.	<ul style="list-style-type: none"> Depending on the assessment level that the responsible authority determines for each project, the formulation of comments from the population is not always compulsory. 	<ul style="list-style-type: none"> Citizen organizations recognized as a legal entity by means of their representatives. Natural persons directly affected. 	✓	✓	✓
19.	Public consultation is carried out.	<ul style="list-style-type: none"> When the project refers to a review commission, the public could be invited to participate and a final report from the commission should be published and made available to the public. 	x	<ul style="list-style-type: none"> Public hearing. 	✓	<ul style="list-style-type: none"> Public hearing (there are projects that can be exempt from this requirement).
20.	The observations carried out by the public are considered by the competent authority.	✓	<ul style="list-style-type: none"> Pointing out the reasons when these observations have not been accepted. When the observations have not been properly considered, an appeal can be filed. 	<ul style="list-style-type: none"> Pointing out the reasons, when these observations have not been accepted. 	✓	<ul style="list-style-type: none"> According to their «importance», they will be considered at the moment the decision is made on the approval of the environmental study. It is not required for contributions to necessarily be considered or that the authority justify the basis for resolution.
21.	The public consultation is carried out in a central or place near the project.	IND		<ul style="list-style-type: none"> It is carried out in a place near the project. 	IND	<ul style="list-style-type: none"> Preferably in a place near the project.

✓ Yes

x No

IND = Information not available

Note: According to the country, the environmental studies have different names: (EIS, DIA, EIA, MIA)

II. CENTRAL ELEMENTS TO EVALUATE CITIZEN PARTICIPATION IN MINING-METALLURGIC PROJECTS

Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	EXTRA LEGAL SCOPE
1. Has the process of environmental assessment been regulated (EA)?		1. Is the presentation of environmental studies for the most part fulfilled?		1. Are there citizen mechanisms that are not required by or establish in the law?	
2. Has a system for environmental assessment been developed (SEIA)?		2. Does the EA work in practice as a process that relies on one authority or with unique criteria that have become a system?		2. Are these mechanisms promoted by the company?	
3. Do the EA or the SEIA include the projects that were being carried out before the environmental study was compulsory?		3. Is there more than one authority that intervenes in the EA process?		3. Are they promoted by the authority?	
4. Has an environmental study been provided for activities with low environmental impacts?		4. Does adequate coordination exist among the authorities?		4. Are they promoted by civil society organizations?	
5. Do orientation guidelines exist to carry out environmental studies in the mining projects?		5. Is citizen participation administered by more than one authority?		5. Are they promoted by the church?	
6. Have mechanisms for citizen participation been provided for in the phase of mining exploration?		6. In practice does the application of general rules of citizen participation prevail over the specific ones in mining?		6. Have these mechanisms emerged to avoid problems due to prior conflicts between the companies and population?	
7. Have mechanisms for citizen participation been provided for in the extraction phase of mining?		7. Do the specific rules of citizen participation prevail over the general ones?		7. Do these mechanisms operate properly?	
8. Have mechanisms for citizen participation been provided for in the refining phase?		8. Are the guides to carry out environmental studies used effectively?		8. Are these mechanisms or processes of citizen participation used with regard to projects that are about to be carried out?	

Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	EXTRA LEGAL SCOPE
9. Have mechanisms for citizen participation been foreseen in mining-metallurgical activities?		9. Are the guides for citizen participation used effectively in the process of EA in mining?		9. Are they used with respect to projects that are being carried out before the EA was compulsory?	
10. Do the mechanisms for citizen participation include the activities of the transport of minerals?		10. Does citizen participation operate adequately in the phase of mining exploration?		10. Are they used with respect to low risk activities and projects?	
11. Do the mechanisms for citizen participation include the storage activity, for example in ports?		11. Does citizen participation operate adequately in the mining extraction phase?		11. Are these mechanisms of citizen participation used from the beginning of the EA and during the whole process?	
12. Do general rules exist for citizen participation?		12. Does citizen participation operate adequately in the refining phase?		12. Are they only used in some stages of the EA?	
13. Do specific rules exist for citizen participation in mining projects?		13. Does citizen participation operate adequately in the mining-metallurgic activities?		13. Are they only used in the final stage when the environmental study is already worked out?	
14. Do specific rules exist for citizen participation in the process of environmental impact assessment of the mining sector?		14. Does citizen participation operate adequately for transport activities?		14. Is adequate and appropriate information provided during the extralegal processes of citizen participation?	
15. Have mechanisms of citizen participation been foreseen for the modalities of an environmental study for activities of low environmental risks?		15. Does citizen participation operate adequately for the storage activity, for example in ports?		15. Are there restrictions for the participation of a sector of the population in these processes?	
16. Do the guides to carry out an environmental study set out specific rules for citizen participation?		16. Do the mechanisms of citizen participation operate adequately for the activities that were already being developed before an environmental study was compulsory?		16. Do particular experiences of citizen participation processes that have involved an active role with women exist?	
17. Do guidelines or specific recommendations exist on citizen participation?		17. Do the mechanisms of citizen participation operate adequately for the activities of low environmental risks?		17. Are informed sectors convened to participate in these processes (universities, investigators, consultants and ONGs)?	

Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	EXTRA LEGAL SCOPE
18. Are mechanisms of citizen participation defined in the development phase of the environmental study?		18. Does citizen participation operate adequately in the elaboration phase of the environmental study?		18. Is the press used for conveying or the dissemination of the project?	
19. Have participation mechanisms been established in the stage of review or approval of the environmental study?		19. Does it work adequately in the review and approval stage of the environmental study?		19. Is the relevant information made available to the public?	
20. Are there mechanisms for the follow-up and control stage?		20. Does it work adequately in the follow-up and control phase?		20. Are hearings or public workshops carried out?	
21. Are the mechanisms of citizen participation applied to the projects operating before an environmental study was compulsory?		21. Does access to information work adequately?		21. Is a person of contact designated to facilitate the process of citizen participation?	
22. Is the right to access to information recognized?		22. Do the guarantees for the right to the access of information work adequately?		22. Is the designation of a person disseminated?	
23. Do guarantees exist for this right?		23. Are there informal restrictions that in practice limit access to information?		23. Are surveys used?	
24. Do procedural mechanisms exist for the access to information?		24. Is the information that one has access to adequate?		24. Are the surveys usually objective and neutral (they don't direct answers)?	
25. Are there formal restrictions on access to information?		25. Can information be accessed properly?		25. Is the authority involved in these processes?	
26. Can the population present themselves before the authority to state their observations at any time?		26. Are the press medium used in the citizen participation process acquired only by a reduced sector of the population?		26. Is he only informed?	
27. Can they only present themselves in pre-defined stages of the EA process?		27. Are they widely spread among the population?		27. Does the company grant the population guidance on how to participate?	
28. Is the media used to disseminate information about the citizen participation process?		28. Is it widely spread among the population at the site where the project is being carried out?		28. Are the terms of these citizen participation processes adequate?	

Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	EXTRA LEGAL SCOPE
29. Are the environmental studies made available to the public at a central location?		29. Is the location where the environmental studies are made available to the public accessible for the people possibly affected?		29. Do these processes supplement those done by legal mandate?	
30. Are the environmental studies made available to the public in more than one location or a place near the project? 30. Are there restrictions on access of a certain sector of the population to this location?		tain sector of the population to this location?		30. Have these processes been developed in the absence of standards concerning citizen participation?	
31. Can copies be obtained of the environmental study and other relevant documents?		31. Are there formal restrictions on obtaining copies of the environmental study and other relevant documents?		31. Are these processes carried out in a central headquarters?	
32. Is a public hearing carried out?		32. Do public hearings work adequately?		32. Do they take place in the location of the project carried out or to be carried out?	
33. Are there formal restrictions for citizen participation at the public hearing?		33. Are there formal or informal restrictions on the participation of a certain sector of the population at the public hearing?		33. Does the owner of the project present his position concerning the observations and recommendations outlined during the citizen participation process?	
34. Can the participants comment during the public hearing?		34. Are there formal or informal restrictions for the participation of a woman in the public hearing?		34. Does the company carrying out the project assume the concrete commitments during these processes?	
35. Have specific mechanisms of citizen participation been provided to facilitate the participation of people from vulnerable sections of the population?		35. Are substantive contributions introduced through the mechanisms of citizen participation?		35. Are these commitments complied with afterwards?	
36. Have specific mechanisms of citizen participation been provided to promote the participation of women or associations of women during the EA process?		36. Do informed actors (universities, investigators, consultants) normally participate in the citizen participation process?		36. Is any citizen participation mechanism left open permanently?	

Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	NORMATIVE SCOPE	Scope of assessment Criteria	EXTRA LEGAL SCOPE
37. Have mechanisms been provided to promote the participation of informed actors in the process of citizen participation (for example, universities, investigators, consultants)?		37. Are citizen participation mechanisms used recurrently for purposes outside the EA process (for example, political purposes)?		37. Are the mechanisms open only while the process of citizen participation lasts?	
38. Is the authority required to incorporate an observation or recommendation presented in the participation process?		38. Does the authority generally adopt the recommendations presented?		38. Does the population participate actively in these processes?	
39. Is the authority required to base the adoption or rejection of the resolution of approval on the observations and recommendations presented.		39. Does the authority, in practice, base its approval resolutions of the environmental study, making reference to the observations and recommendations of the citizen participation process?		39. Do they have credibility with the population?	
40. Are there established legal channels so the population can challenge the approval decision of the environmental study?		40. Do the means to challenge the approval decisions of the environmental study operate adequately?		40. Is the communication between the representatives of the company and population fluid?	
		41. Are there practical restrictions on the use of these challenges for a project?			
Quantify your general opinion considering: 1= Excellent 4= Bad 2= Good 5= Very bad 3= Acceptable		Quantify your general opinion considering: 1= Excellent 4= Bad 2= Good 5= Very bad 3= Acceptable		Quantify your general opinion considering: 1= Excellent 4= Bad 2= Good 5= Very bad 3= Acceptable	
FINAL COMMENTS (General or specific to one of the judgments set forth)		FINAL COMMENTS (General or specific to one of the judgments set forth)		FINAL COMMENTS (General or specific to one of the judgments set forth)	

COUNTRY REPORTS

I. CITIZEN PARTICIPATION AND MINING IN CANADA

1. Introduction

Canada is one of the top five mining countries in the world, with the value of production in this sector totaling \$18.53 billion in 1999. There are more than 900 mining establishments in Canada. The following report briefly details the major components of public consultation mechanisms as they apply to mining proposals in Canada at the time of an environmental assessment of the project and at other times during the life of a mine.

2. Environmental impact assessment processes

2.1. Federal EA Regime

The Canadian Environmental Assessment Act (CEEA) contemplates a range of assessments, from less rigorous screening to intensive comprehensive studies. The level of assessment is subject to judgment by the responsible authority (RA)²⁸ as provided under the Act. The general principle applied is that the more ample the assessment, the more opportunities for public input.

At the initial scoping stage, there are no requirements for public input, although the RA may decide to invite comments (this has happened only on rare occasions).

All assessments require the proponent to prepare a report describing the environmental impacts of the project. These reports must be registered at the public registry. The registry details all the assessments and includes information of how to acquire these reports and other documents relevant to EA. This information must remain accessible until any follow-up program is completed or the review panel issues their report.

2.1.1 Level One: Screening

If the project undergoes a screening (the process for most mining EAs), the RA may, but need not, seek public comment on the completed screening report. Having sought public input, the RA must consider any comments submitted in reaching a decision about the significance of environmental effects and whether the project should proceed or not.

2.1.2 Level Two: Comprehensive Study

If the project undergoes a comprehensive study, public comment on the completed study report is mandatory. The RA must notify the public (through the public registry) when and how copies of the report may be obtained and the comment deadline. The RA must consider public comments in reaching a decision about whether the project may proceed or not, whether the assessment needs to be referred to mediation or to a panel review.

2.1.3 Level Three: Panel Review

If the project is referred to a panel review, the panel may invite public input in setting the terms of reference for the proponent's EIS. Participant funding (for the panel review assessment only) may be made available. All hearings must be open to the public and all relevant documentation disclosed unless the panel is of the opinion that disclosure would cause harm to a witness or the evidence. The report finally generated by the review panel must be made publicly available for review but further comment is not permitted. Post-EA monitoring is not required.

²⁸ The Responsible Authority is the Government Ministry or agency identified as the authority responsible of carrying out the environmental assessment.

2.1.4 Post-ES opportunities to challenge Minister's decision

Citizens may apply to the Federal Court for judicial review of the Ministers decision or the report that led to it. However, the possibility of an adverse cost award and the significant expense of litigation are serious impediments to citizen-initiated court review. Furthermore, recent court decisions have held that judges, with narrow exceptions, cannot and should not interfere with Ministerial discretion in the environmental assessment process. It is very difficult to challenge the content of an assessment and Ministers decision (see *Friends of the West Country Assn. V. Canada* (1999), 248 N.R.25 (F.C.A.)).

2.1.5 Actual public participation in mining proposals subject to CEA

a) Screening

There have been hundreds of screenings of mining projects or activities under CEAA, less than 20 comprehensive studies, and only two panel reviews (Voisey's Bay Nickel Mine, and the Cheviot Mine). Public participation has only occurred in about 10 to 15% of screenings.

b) Comprehensive Study

A 1999 study commissioned by the Canadian Environmental Assessment Agency found that all Comprehensive Study EAs to date included some form of public participation (meetings, open houses, advisory committees, liaison offices or site visits) before the review and comment stage.

In the Aquarius Mine review, there were open houses and presentation for targeted groups such as land users, the local citizens committee, the regional conservation authority, and for the general public before the Comprehensive Study Report (CSR) was prepared and open houses and meeting after the CSR was completed.

In the Diavik review, more than three hundred public consultation meetings were held in the time between explorations in 1993 to the completion of the report in 1999. The period for public comment on the proponents EA report was extended to six months, and \$ 750,000 was made available to northern stakeholders for technical advice and for participating in the comprehensive study. An Agency press release stated that concerns addressed through these and other consultations resulted in the Minister of Environment adding conditions to the approval of the project. These conditions include the requirement for a cumulative effects management framework to be designed and implemented and that NGOs should be involved in this; and the establishment of a monitoring mechanism and regular reports from Diavik on operations and on how public concerns are being addressed.

The assessment of the BHP diamond mine in the Northwest Territories created the native-run Independent Environmental Monitoring Agency as a condition of approval. The Agency reviews the design of monitoring programs and examines the environmental management systems and results. BHP pays for most of the cost of this Agency.

c) Panel Reviews

As a preliminary step in the Voisey's Bay review, a Memorandum of Understanding between two aboriginal groups and two governments is in part responsible for what may be the most comprehensive [ES] guideline yet developed for mining activities under federal environmental assessment procedures.

Scoping sessions with the public were held in ten communities. There was a 105-day period for the review of the proponent's EIS. Public hearings were held over two months in 11 communities and included community, general and technical sessions. An independent funding panel awarded CN\$ 150,000 to 12 groups for the scoping phase of the EA, and awarded CN\$ 259,000 to 13 groups for the public hearing phase of the EA. Of the panel review completed or underway under the Canadian Environmental Assessment Act, a total of CN\$ 850,000 has been awarded for participant or intervener funding, with 62 out of 85 applications being accepted. The average award was CN\$ 10,000, with the largest being CN\$ 80,000 to each of two aboriginal groups in the Voisey's Bay Mine review

2.2 Other Federal EA Regimes

Until recently, CEAA applied in the northern Territories. Now, the Nunavut Territory has its own assessment regime, and the recently passed Mackenzie Valley Resource Management Act (MVRMA) creates a new EA regime for the Northwest Territories. The Yukon Development Assessment Act has been drafted but has not yet been passed. The latter two EA regimes appear to weaken the public participation component of environmental assessment in these jurisdictions.

The Canadian Arctic Resources Committee (CARC) noted the following: Public participation rights as they are set out in CEAA are watered down in the MVRMA to an assurance that public concerns will be taken into account. There are no guarantees of participant funding nor a public registry. While the board must consult with First Nations and government representative about establishing process guidelines and EA terms of reference, there is no mention of the need to consult with the public. In addition, although Part 6 of the Act established the requirement for monitoring environmental impacts, a clear mechanism and process for this is not established.

The Yukon Act would create an assessment regime to review proposals for projects and possible plans and policies. While the draft Act states that opportunities for public participation should be provided, it does not specify when or how. It provides for regulations to be established for participant funding for panel reviews only. There is no explicit requirement in the draft Act that panel review be open to the public or that the public must be able to participate.

2.3 Provincial Level

2.3.1 British Columbia

Every Canadian province has some form of environmental assessment legislation. This report focuses on the regime in British Columbia (BC) because of the number of mining assessments in that Province. The BC Environmental Assessment Act applies to projects listed in the legislations, and to projects designated by the Minister of Environment, Lands and Parks (MELP) for review.

The Act established a two-step self-directed assessment, a preliminary EIS, and then, if a project committee deems necessary, a more detailed EIS. The Act requires an independent panel review if the more detailed assessment shows that the environmental effects of a project would likely be significant. There are a number of opportunities for public participation under this Act and requires public consultation during the first level of EA

a) First and Second-Stage Assessments

The proponent must consult with the public during the preliminary EIS development stage, and must include information about these consultations and the comments received in the SIS. The EIS report must also be open to public comment. A public advisory committee may be struck to advise the project committee on matters of public concern.

If the project moves to step two, the project report specifications may include the requirement for a plan of public consultation in developing the more detailed EIS and must be open to public comment. The new detailed EIS must also be open to public comment.

If the project then moves on to an independent panel review, the draft terms of reference for that review must be open to public comment and the panel review must be public. In practice, few mining projects in BC have been required to undertake a second-level assessment.

b) Public registry

A public registry must be maintained for every project to be reviewed in any capacity under the Act, including a list of projects and directions on how to access all non-confidential documents relevant to the EA. The Minister may, at her discretion, provide funding and access to technical expertise for public participation in any stage of the review process.

c) Panel Reviews

Six major mines and several other mining projects have been approved under this Act without proceeding to a panel review. As with SEAA, interested parties may apply to the court for judicial review of the Minister's decision, but the risk and expense make this option unattractive.

2.3.2 Harmonization

In 1998, Canadian Provinces and the Federal Government adopted the Canada-wide Accord on Environmental Harmonization with a Sub-Agreement on Environmental Assessment to apply when more than one government issues an approval for some aspect of a project following an EA. The purpose of the agreement is to avoid two or more EAs or joint panel reviews. The sub-agreement states at section 4.2 that an «assessment shall include provisions for public participation», and that this shall include disclosure of the project proposal, comment on the EA report, notification of any public hearing held and the opportunity to participate in the hearing. It may also, but need not, include comment on the assessment terms of reference and input during the development of an assessment report.

3. Common participatory mechanisms

This section discusses other mechanisms for public participation outside of the EIS process. Opportunities for early or preventative involvement are few. Generally, most of the mechanisms described below - monitoring, investigation and enforcement – apply after a project has been approved.

3.1 International Level

A member of the public may bring a matter related to a mine to the NAFTA Commission on Environmental Cooperation (CEC). The CEC must decide whether it will investigate the matter. If it decides to investigate, an arbitral panel may be called to issue a ruling on environmental compliance. A reference to the CEC has been submitted by the Sierra Legal Defense Fund for three BC mines (Tulsequah Chief, Mount Washington and Britannia) but the CEC has not yet issued its final report as to whether an investigation will be undertaken.

3.2 Federal Level

3.2.1 Mining Operations

a) Federal Law is applies to uranium mine operations

With the exception of uranium mines and mines located in the Northern Territories, regulating mines and mining per se is generally outside of Federal jurisdiction in Canada. The Nuclear Safety and Control Act regulate and require licenses and approvals for all operating aspects of uranium mines. The public may gain access to parts of application and approvals, but access is difficult. The information is not available electronically and has not been archived for easy retrieval.

b) Federal permits may trigger public consultation

Permitting under some Acts triggers public consultation. The Yukon Quartz Mining Act and the Yukon Placer Mining Act require operating plans for exploration and some exploration activities require permits. Other requirements for mines and reclamation require approval as well. In the Northwest Territories, the Waters Act and Part 3 of the Mackenzie Valley Resource Management Act require licenses for the use of land, including subsurface rights. The public must be notified before a license or permit can be issued, and the Minister may require public consultation on the terms and conditions of the license.

3.2.2 Environmental Laws

a) Private prosecutions may enforce environmental law

The Federal Fisheries Act and the Navigable Waters Protection Act require permits for activities that

may interfere with fish, fish habitat or navigable waters. Private prosecutions may be pursued under both Acts, and prosecutions (both by the government and private citizens) against mining companies have been initiated under the Fisheries Act.

b) Northern water laws trigger public participation

The Yukon Waters Act requires approvals for making use of and discharging into water, which may apply to mining operations and Water Board hearing may be open to the public. The Northwest Territories Waters Act and Part 3 of the Mackenzie Valley Resource Management Act require licenses for the use of lands, water and the deposit of waste. The Board must notify affected communities of any application and allow a reasonable period of time for community members to make representations to the Board. A public registry pertaining to applications must be kept. Inspectors monitor compliance and it seems it is possible to start private legal actions.

3.2.3 Access to information

Access to information is necessary for public comment or action. Under CEPA, the National Pollutant Release Inventory lists releases or transfers of toxic substances regulated by CEPA. Pollutants directly related to mineral extraction are exempted from reporting to the NPRI, but those related to mine processing or smelting must be listed. The federal Access to Information Act sets out the process and terms for requests for information in the hands of the federal government.

3.3 Provincial Level

3.3.1 Ontario

a) The Mining Act

In Ontario, the Mining Act regulates most mining operations, from claim staking to closure and rehabilitation. The Ministry provides public access (usually for free) to geological data, industry assessment files, mineral deposits and other information. The Mining Commissioner may require public notice of advanced exploration plans and must require public notice for closure plans.

b) Environmental Protection Legislation and The Environmental Bill of Rights

The Ontario Environmental Protection Act and the Ontario Water Resources Act require permits or approvals for pollution to air, land and water, and for water taking. These Acts are subject to the Ontario Environmental Bill of Rights, which requires the posting of the proposed permit or approval on the EBR electronic public registry (administered by the Environmental Commissioner's Office), and a provision for public comments. The Minister must take any comments into consideration when determining whether to grant any approvals or permits. The Ministry also issues periodic public reports on compliance with approvals under the OWRA and the EPA. Reports under the latter Act tend to be regional and industry wide, not company specific.

Under the EPA, tribunals may hear appeals regarding EPA approvals and applications for new or altered mines. These are open to the public and members of the public may apply for intervener status before these hearings. The public also has a limited right of appeal under the EBR of the Minister's granting of approvals, but on the condition that the applicant had previously submitted a comment regarding the approval, and only if no reasonable person could have granted the approval and such approval could result in significant harm to the environment. The public has the right to bring a civil citizen suit for harm to a public resource, against any alleged violator of an Act, regulation or permit covered by the EBR (no suits have been brought to date).

Two members of the public may request that the Minister conduct an investigation into any alleged contravention of any Acts and regulations to which the EBR applies. It is within the Minister's discretion to conduct an investigation, and if he does not, the Minister must provide notice of the refusal with reasons to the applicants. Requests for investigation under the EBR are rare.

c) Access to Information

The Metal Mining Sector Regulations under the EPA require public disclosure of compliance information. The Ontario Freedom of Information and Protection of Privacy Act (FIPPA) would broadly pertain to other informational requests, and it sets out the process and conditions for gaining access to information in the hands of provincial authorities. There is a similar FIPPA in BC.

3.3.2 British Columbia

a) The Mines Act

In BC, most mine operations require a permit under the Mines Act, and the Chief Inspector has the discretion to require the permit application to be published in a local newspaper. If it is published, any affected person may submit comments to the Chief Inspector. If the permit is to open a new mine, the application and plan must be submitted to an advisory committee that makes recommendations to the Chief Inspector who has the final decision but who must take any public comments into account.

b) Environmental Protection Legislation

The Waste Management Act requires permits for discharges and special waste, and the Water Act requires permits for water taking. The WMA also regulates remediation of contaminated sites. The WMA requires public notice of any comments to (through an electronic registry) all permits and approvals issued by MELP, and sets out public consultation requirements for mine remediation. The Water Act requires public notice of, but no public comment on, water taking licenses.

Private prosecutions under the EA, Mines and Waste Management Acts may be brought, but the BC Attorney General has a long-standing policy of taking over and staying private prosecutions. Judicial review of Ministerial decisions under these and other BC Acts is the course citizens generally take. There are no provisions for citizen suits under the Acts.

4. Other legal mechanisms

4.1 Private prosecutions

Private prosecutions are a right conferred by common law to pursue a quasi-criminal conviction for an offence committed under a statute (see discussion above). Under the Fisheries Act, one half of any fine levied through a private prosecution is paid to the private prosecutor. However, the provincial Attorney General also has the right to take over any private prosecution.

4.2. Civil actions: torts and citizen's suits

Private citizens may bring a suit in negligence, nuisance or trespass, but only if they are directly affected by some impact from a mining operation. For both regular lawsuits and citizen suits under a statute (any person can initiate the latter), a losing plaintiff might be faced with an adverse cost award, especially under new Federal Court rules. Citizen suits are very rare due to the expense and the procedural difficulties.

5. Non-legal mechanisms

The limitations of public participation mechanisms provided in Canadian law, apparent even in the very brief treatment above, leave the public with the need to find other ways to participate.

5.1 Public Activism

Public education and pressure campaigns have had an influence on mining decisions in Canada. In the early 1990s, individuals and public interest groups spoke out loudly against the proposed development of the Windy Craggy mine bordering on Glacier Bay National Park in Alaska. In 1993 the BC Government revoked the company's mining permit and in 1994 UNESCO designated the area a World Heritage Site.

Community monitoring of compliance and pollutants is another option that has been used to some effect in Canada. Citizens groups now regularly monitor and test water quality. Public oversight over reclamation and remediation policy and planning (for instance, for Equity Silver, Sullivan, and Deloro mines) is often handled through public liaison committees.

Several non-governmental agencies in Canada, including CIELAP, work to improve public understanding of environmental issues around mining, to inform public participation in mining issues, to advocate for better environmental regulation of mining among many other mining-related initiatives. Groups include the Environmental Mining Council of British Columbia, Mining Watch, the Canadian Arctic Resources Committee, the Taskforce on Churches and Corporate Responsibility, the Canadian Environmental Law Association and others

5.2 Industry initiatives

Some industry voluntary compliance initiatives create room for direct public involvement. The Whitehorse Mining Initiative is a set of sustainable development objectives created through a multi-stakeholder consultation during 1992 to 1994 involving environmental and other public interest groups as well as industry. This project has improved communication among stakeholders, but it has not resulted in significant changes in mining industry practices. The Trail Community Lead Task Force (of company, union, community and government representatives) was established in 1990 to reduce blood lead levels in children, and has had some success.

The Mining Association of Canada is the world's first national mining body to adopt an environmental policy. The policy includes the requirement of companies to work pro-actively with government and the public in the development of environmental protection laws, and to enhance communication with other stakeholders.

5.3 Impact benefit agreements

5.3.1 Purpose and description of impact and benefit agreements

It has increasingly become the practice for mining companies in Canada to negotiate agreements with affected Aboriginal communities whether or not there is a specific legal requirement to do so. Agreements between Aboriginal communities and mineral companies are known as Impact and Benefit Agreements (IBAs) but are also called socio-economic agreements, participation agreements, cooperation agreements, and revenue-sharing agreements among other names. Their general purpose is to minimize the negative environmental, socio-economic and cultural impacts from specific projects, while at the same time ensure that benefits from resource development are retained locally. Mining companies often view IBAs as a means to address local concerns and to ensure acceptance of their project.

5.3.2 Legal basis for impact and benefit agreements in Canada

The legal and policy context for IBAs varies greatly across Canada. Important variables are the political power and capacity of individual Aboriginal organizations, provincial or territorial government policy and whether a community has had its collective Aboriginal rights recognized formally through a land claims agreement or treaty. Recent decisions by the Canadian courts have strengthened and better defined Aboriginal rights protected in the Canadian Constitution.

a) Land Claims

Several land claims agreements covering northern Canada (Inuvialuit Final Agreement, Nunavut Agreement, Gwich'in Agreement, Sahtu Agreement, Yukon Umbrella Agreement) have specific legal requirements for IBAs (although often by other names) where Aboriginal lands are to be used or accessed for resource development including mining. In the Nunavut Agreement there are requirements for IBAs throughout their settlement area regardless of land ownership or access.

b) Government Policy

Government policy or legislation may also require IBAs. Federal legislation covering hydrocarbon

exploration and development in the NWT, Yukon and Nunavut requires benefits plans for affected communities. Land leases issued for mining projects in Saskatchewan are used to build in socio-economic benefits for communities. The federal Minister of Indian and Northern Affairs used his discretionary authority on a water licence for the BHP Ekati diamond mine to ensure that 'satisfactory progress' had been made on IBAs as a condition of mine approval.

5.3.3 General Content

IBAs usually reflect the structure of contractual agreements with a purpose or preamble, definitions, objectives and other similar provisions. A detailed description of the project is important as projects change or expand.

There is a quid pro quo element to the agreements. Aboriginal communities are often required to support a project in exchange for the economic benefits offered. These benefits usually include preferences in employment and training, contracting, point of hire, language used at the project, work rotations and evaluation. Other economic provisions usually relate to compensation, cash payments, royalties, equity ownership, and reimbursement for negotiation and implementation costs. The end use of any financial gain is usually open to negotiation but it may be for individual payments, community amenities or economic diversification. IBAs often contain provisions relating to protection of archaeological and cultural resources, environmental monitoring, regulatory compliance, abandonment and reclamation.

5.3.4 Positive and negative Aspects

It is strength of IBAs that mining companies now are generally willing to negotiate them with communities. The financial and human resources a community can bring to the negotiations often influence the outcome. Many communities cannot possibly match multi-national corporations and government support is often limited. However, IBAs are still an improvement over other options.

Most IBAs are confidential. This is a weakness as confidentiality may make negotiation, ratification and evaluation by Aboriginal communities difficult. Communities often have to learn about IBAs without sharing their experiences or the lessons learned by others. If an IBA contains a confidentiality clause and environmental protection measures, it is often difficult for government regulators, the public and perhaps even community residents to design proper terms and conditions for project regulatory approvals.

Another weakness is the «quid pro quo» nature of the agreements. An IBA that requires community support for a project may prevent or hinder participation in a public environmental assessment or other processes if the IBA is negotiated first. Community support provisions may also restrict the ability to criticize or comment on a project. Once a project is approved through an environmental assessment, there is often less incentive for the proponent to negotiate an IBA with Aboriginal communities.

Finally, many IBA offer the objective of displaying the «best efforts» on the part of the mining companies. Unless specific provisions are established on the benefits or sanctions or clear resources, it will be difficult to make them comply.

6. Successful results

In Canada, there are a number of opportunities, at least on paper, for public participation in mining law and practice. However, the effectiveness of these opportunities in avoiding or mitigating the negative environmental effects of mining is questionable especially as only a few mining projects have been subject to a full environmental assessment hearing. The perception is that while the public has legal opportunities to be heard, these are few, far between and of limited influence.

The situation for aboriginal communities is different than for the greatest part of the Canadian public in that these communities live where mines are being developed. Because of where they are, and because of the state of aboriginal law and aboriginal rights in Canada, these communities have developed with government and industry a range of mechanisms including IBAs. The most promising development that has grown out of this context that is also part of an environmental assessment is the precedent-setting establishment of the Independent Environmental Monitoring Agency for the BHP diamond mine in the Northwest Territories. Of all the mechanisms described in this paper, this appears to be the one with the most potential as a model for improving public participation in the EIA process.

II. CITIZEN PARTICIPATION AND MINING IN CHILE

1. Introduction

Mining, a traditional activity in Chile, has played a key role in the national economy, although its influence has diminished due to the existence of transnational companies in charge of developing mining resources. It is estimated that Chile owns nearly 40% of all existing copper on the planet, therefore, an assessment of mining operations is important, mainly when they are carried out with other activities. The following report briefly details the most important citizen participation mechanisms applied to Chilean mining projects when, according to legislation, an environmental impact study is required.

2. The Environmental Impact Assessment Process

2.1 Description

In Chile, the environmental impact assessment process (EA) is regulated by the Ley de Bases Del Medio Ambiente No. 19.300²⁹ (from now on LBMA), the Sistema de Evaluación Ambiental³⁰ (from now on SEIA) and recent approved modifications.³¹ These regulations have determined that the EA process begins by presenting an environmental impact study (EIA) or declaration of environmental impact (DIA), according to the case, to the Comisión Regional de Medio Ambiente (COREMA)³² or Dirección Ejecutiva de la Comisión Nacional de Medio Ambiente (CONAMA).³³

During the five days following the presentation of the EIA, it should be examined by COREMA or CONAMA to verify if it complies with all the legal and regulatory requirements provided for in Article 20 of the SEIA.³⁴ If it does not comply, a resolution to that effect will be sent to the owner of the project by means of a certified letter. If the EIA or DIA does comply, it will be accepted for processing and the owner will be notified of the resolution, in the same way.

The resolution orders that an extract of the approval be published in the official, journal or newspaper of the capital of the region or of national circulation within the ten days following the presentation.

Within three days after the resolution, COREMA or CONAMA will order that the copies of the EIA, be sent to the state authorities responsible for environmental issues and municipalities where the project is being carried out, attaching a copy of the resolution.³⁵ The background provided for in Article 30 of the LBMA³⁶ is also added to the list published monthly.

29 Ley No. 19.300 on Bases del Medio Ambiente, published in the official newspaper on March 9th. 1994.

30 Decreto No. 30, 1997 from the Secretaría General de la Presidencia de la República, Published in the oficial newspaper on April 3rd. 1997.

31 Decreto Supremo No. 95/01, published in the official gazette on December 7th. 2002.

32 Environmental agency at the regional level.

33 Environmental agency at the national level.

34 That is to say:

- a) If the presentation is made before a competent organism.
- b) If the presentation is made by an authorized legal person .
- c) If the documented presented complies with the minimum content and other formal requirements.
- d) Was it accompanied by enough copies.
- e) In the case of an EIA, if an extract of the proposal was submitted for publication.

35 The term «State administration organisms» or «State organisms» refer to national government agencies.

36 Article 30 of the LBMA refers to an information system for the community applicable to the EIAs, a system that would allow citizen participation in the environmental qualification of the projects or activities to be developed. In general terms, this system consists of a monthly publication of a list of the projects or activities that have been put through the SEIA via the presentation of an EIA.

Following the process is the assessment, which starts with a report that the State authorities³⁷ submit to CONAMA or COREMA within 40 days after sending the EIA copies and 20 days after sending the DIA copies.

With the reports, CONAMA or COREMA will develop a technical report with the references provided for in Article 28 of the SEIA for the EIA or Article 33 of the SEIA for the DIA. The report will be submitted to the State authorities participating in the process and they will have five days to submit the final approval. Once the approval or refusal is confirmed, CONAMA or COREMA will proceed to attach these to the technical report, and this document will be named 'final technical report' of the EIA or DIA.

The final technical report will be considered, among others, in the environmental qualification resolution, which will contain the requirements provided for in Articles 37, 38 and 39 of the SEIA, and be announced at the COREMA members meeting, summoned by its President. If the EIA or DIA is processed before the CONAMA Board of Directors, the resolution will be passed by the Director. This resolution will be called 'environmental qualification resolution' and will environmentally qualify the project or activity on the basis of EIA or DIA information. This resolution may be in favor or against the project or activity.

The State authorities participating in the environmental qualification of the project can request explanations, rectifications or extensions if necessary in order to clearly understand the EIA or the DIA, and these will be included in a consolidated report prepared by CONAMA or COREMA. The holder of the project or activity will be notified by means of a certified letter, and given a deadline to reply.

The whole procedure should be processed within a period 120 days for the EIA and 60 days for the DIA.³⁸

37 These organisms should grant sectorial environmental permits in title VII of the SEIA regulation. According to the single window system (one window to present applications) that environmental legislation framework tried to establish, such organisms should pronounce themselves on those environmental issues relative to the granting of permits in the SEIA framework, so that the qualification decision which results from this same procedure, has binding character with regard to them. For these circumstances, the system considers that the environmental information the holder should provide to the organisms to obtain the respective sectorial permits, be included in the EIA or DIA, as corresponds. As part of the qualification procedure, copies of the EIS are sent to the corresponding organisms, who should inform the respective CONAMA or COREMA, pointing out whether the project or activity complies with the specific environmental normative. Likewise, in order to coordinate their participation in the SEIA, the representatives of the organisms meet in executive committees. Finally, the environmental qualification of a project is decided in a session with the member of CONAMA or COREMA. This decision should consider, among other background information, the final technical report of the project, which should gather information from each of the competent sectorial organisms that have participated in the procedure. Such an environmental qualification decision is binding, in environmental matters, for all the sectorial organisms that issue a sectorial permit, including those that in their respective reports, may have formulated an objection. In this regard, as provided for in Article 40 of the SEIA regulation, if the environmental resolution is unfavorable, it is not possible for the activity or project, or modification to take place, and the State administrative organisms, with environmental responsibility, are obliged to deny the corresponding permits on the grounds of environmental impact of the project, even if all the other requirements are satisfied.

38 For further details on the procedures described, see Articles 17 and 42 of the SEIA regulation.

2.2 Flow diagram of the procedure steps of the SEIA, participating entities and the stages of citizen participation³⁹



3. Citizen participation mechanisms

The principle of citizen or public participation was the main basis for the Ley de Bases del Medio Ambiente (LBMA). On SEIA matters, Article 26 of the LBMA provides that:

*The Comisiones Regionales and the Comisión Nacional Del Medio Ambiente, according to the case, should establish the mechanisms to ensure informed participation by the organized community in the Environmental Impact Studies qualification process.*⁴⁰

The LBMA and SEIA regulations requires the owners of projects or activities who have presented an EIA to publish an approved extract in the official or journal or newspaper of the capital of the region or of

³⁹ Participación ciudadana temprana en el marco del sistema de evaluación de impacto ambiental. Guía para titulares de proyectos de inversión. CONAMA 1999.

⁴⁰ The same rule has been reiterated in Article 50 of the SEIA regulation, that adds two complementary subsections, pointing out that such mechanisms should be established specifically in each case, depending on the characteristics of the project or activity, and that COREMA or CONAMA can request the participation of the competent environmental organisms or competent in community or social and/or public participation matters for its implementation.

national circulation within 10 days after presenting the EIA.⁴¹

Once published, the owner of the project or activity must submit a copy of the journal or newspaper to CONAMA or COREMA to be added to the records.⁴² In turn, CONAMA or COREMA must submit a copy of the publication to the municipalities and the provincial governors of the areas where the project or activity will take place.⁴³

Citizen organizations with legal recognition, through their representatives and natural persons directly affected, can access the content of the EIA and accompanying documents and even copy part or all of them.⁴⁴ These entities can make written observations about the EIS to the competent authority within 60 days of the publication.⁴⁵ When these observations are made within the time limit and as provided for in Article 54 of the SEIA regulations, they should be considered by CONAMA or COREMA in determining the respective resolution of environmental qualification,⁴⁶ and the entities responsible for the observations should be notified by a certified letter.

If such observations were not appropriately considered in determining the environmental qualification resolution, the LBMA and the SEIA regulations allow citizen organizations or natural persons to appeal against the decision within 15 days after being notified.⁴⁷

When dealing with a DIA, the obligation to inform the community is carried out through a monthly publication of a list of the projects or activities to be processed, subject to an environmental impact declaration presented one month before. Article 30 of the LBMA provides for CONAMA and COREMA to publish this list on the first working day of the month in the official journal and in a newspaper of regional or national (whichever is relevant), «with the object of keeping citizens informed».⁴⁸ CONAMA or COREMA should also submit a copy of this list to the municipalities in the areas where the projects or activities will take place.

41 Article 27 of the LBMA determines the minimum contents of the EIA extract that should be published:

- a) Name of the natural or legal person responsible of the project or activity.
- b) Location or area where the project or activity will be carried out.
- c) Indication of the type of project or activity.
- d) Total investment.
- e) Main environmental effects and mitigation measures proposed.

On the other hand, the SEIA regulation complements this provision in Article 51 and determines the following with regards to the minimum contents:

- a) Names of the natural or legal person responsible for the project or activity, indicating the name of the project or activity.
- b) Brief description and indication of the type of project or activity.
- c) Location or area where the project of activity would take place, indicating the main environmental elements considered in the baseline.
- d) Total investment.
- e) Indicate the institutions or place, including address and attending hours, where a provision of an EIA can be consulted and/or reproduced, and indicate the time limits in which they can formulate observations, including the address of the organisms where they should be submitted.

This extract should be approved by the CONAMA or COREMA.

42 As provided in Article 52 of the SEIA regulation.

43 See Articles 31 of LBMA and 23 of the subsection SEIA regulation.

44 See articles 28 and 53 of the LBMA of SEIA regulation. Only the following can be removed from public knowledge: technical, financial or other reports to ensure commercial and industrial confidentiality, or to protect patented inventions and procedures, when the CONAMA or COREMA, at the request of the holder of the project or activity, has decided to maintain them as confidential. For more detail, see articles 56 and 57 of the SEIA regulation.

45 See Articles 29 of the LBMA and 54 of the SEIA regulation.

46 As provided in subsection 6 of Article 54 and paragraph b) of Article 37 of the SEIA regulation, the latter relative to the references the environmental qualification decision should contain.

47 See Articles 29 subsection 3 of the LBMA, and 47 and 48 of the SEIA regulation.

48 Article 30 of the LBMA establishes the minimum contents of the list to be published, that is

- a) Names of the natural or legal person in charge of the project or activity.
- b) Location or area where the project is to take place.
- c) Indication of what type of activity it is.

Article 55 of the SEIA regulation establishes the following minimum contents:

- a) Name of the natural or legal person responsible of the project or activity.
- b) Location or area and community where the project or activity is intended to take place.
- c) Indication of what type of project or activity it is.
- d) Date in which the project or activity was accepted for procedure.

As the SEIA is generally applied to all projects, projects and/or activities in Chile, the regulations referred to are applied to them all, and thus, no specific rules exist for the mining activity. Also, there are no regulations to address citizen participation in the SEIA for mining projects.

4. Other formal mechanisms

4.1 Citizen participation mechanisms

Starting from the existing legal framework and based on the responsibility attributed to CONAMA or COREMA accordingly to «establish the mechanisms to ensure informed participation by the organized community, in the qualification process of the Environmental Impact Studies» (Article 26, Law 19.300), CONAMA is developing citizen participation programs for regional and interregional projects, designed as a continuing process, articulated in three successive stages, and made up of a group of defined activities according to the special nature of each case.

Its main objective is to guarantee that the different social sectors involved have opportunities for informed and responsible participation through organized and accessible spaces within the 60-day time limit provided by law.

Their specific objectives are:

- To provide information that would allow the public to formulate justified observations;
- To provide similar participation opportunities to people, groups and/or communities with the least possibility of accessing information;
- To ensure their opinions are heard; and,
- Facilitate dialogue and exchange of information between the parties involved.

To make these objectives possible, the participation programs are based on an institutional methodology whose stages, developed during the 60-day time period provided by the LBMA, are the following:

- diagnosis and focalization: activities that allow the involved actors to be identified and the setting where the participation process will take place;
- preparation: activities to provide the public with information required to participate;
- public discussion: meetings with different parties involved (project owner, local community, neighbor councils, interested organizations, among others) to exchange information and opinions for the public to better understand the scope of the project and have a basis to submit duly based observations;
- systematization and consideration of the observations: gathering and including the citizens observations into the environmental qualification process for careful consideration; and,
- information on the resolution: by submitting the environmental qualification resolution, the people and citizen organizations are informed of the decision taken by COREMA or CONAMA and the way their observations were considered.

The program terminates once the 60 days have passed. This will lead to the next stage in which any observations or information of the environmental qualification resolution are considered.

4.2 Early citizen participation guide

In 1999, CONAMA developed a guideline for the owners of investment projects, on early citizen participation in the in the SEIA framework. The guide has been developed on the basis of the rule provided for in Article 12 letter j) of the SEIA regulation, which considers the possibility for the project owners to undertake participation activities prior to the project entering the SEIA «under the notion that it is convenient to have an early approach with those potentially involved in a project, before any fear or mistrust is generated and which is difficult to correct». The idea of these guidelines is to:

- provide basic conceptual elements to understand the meaning of early participation and the arguments for a better understanding of its scope and benefits;
- place citizen participation within a long-term strategic perspective, with the goal of reaching harmonization between companies and communities; and,

- deliver practical tools to support the implementation and planning of early citizen participation processes.

These guidelines define early citizen participation as being equal to all situations of participation and public consultation before a project enters the SEIA, and is therefore implemented voluntarily by the proponents.

There are two key moments to implement early participation:

- during the project's designing stage, when proponents are defining their location and technology.
- while the environmental impact study is being undertaken. In this case, communities can make important contributions on issues such as the localization and design of contaminant processes, definition of prevention measures or mitigation of impacts, and the priority of natural resources to be protected.

The guidelines highlight the advantages of early citizen participation for the proponent or owner of the project and for the community.

For the proponents:

- helps the community to get an early image of the proponent based on more complete and reliable information;
- allows any concerns and fears with respect to the project to be identified and cleared up before they become unmanageable;
- allows greater levels of support to be achieved during all implementation phases;
- increases trust and credibility, as long as proponents plans are open to improvements and suggestions;
- allows simple and creative solutions to solve environmental problems due to communities knowledge of the physical environment; and,
- increases information for the baseline on the human environment.

For the communities:

- increases the probability of their recommendations being incorporated into the design and location of the projects, as well as in prevention, mitigation or compensation from the impacts.
- reduces the concerns associated with conflicts that originate from rumors or misinformation;
- represents the opportunity for technical training on issues related to the project;
- the arrival of a project allows; and,
- other social and environmental benefits.

The guide offers a series of recommendations and guidelines directed to planning early citizen participation.

4.3 National and regional advisory councils

Articles 78 and 79, 82 and 83 of Law 19.300 refer to the National Advisory Council and the regional advisory councils, constituted by representatives of the university sector, NGOs, entrepreneurs, workers and the government.

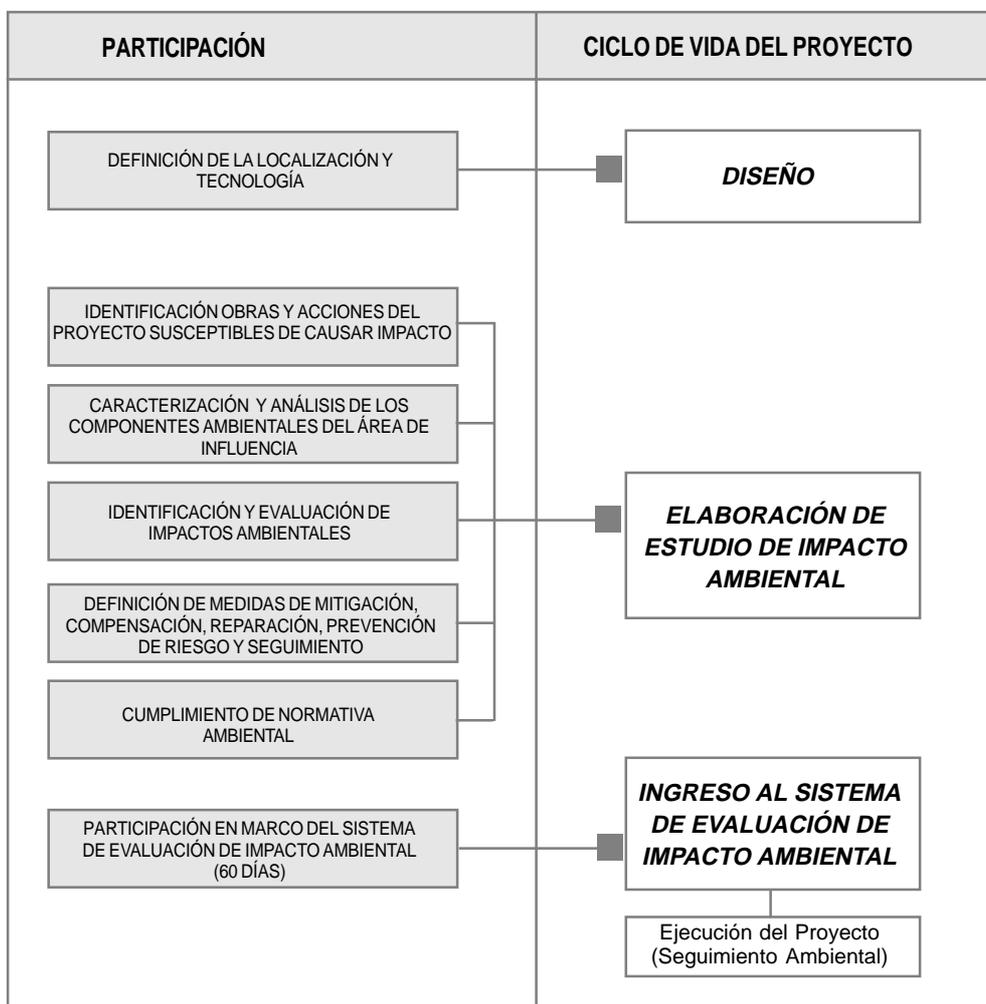
5. Successful experiences of citizen participation in environmental management ⁴⁹

A successful experience regarding citizen participation has been the Compañía Minera Escondida, which began its operations at the end of 1990 in the Antofagasta region in northern Chile. Although the LBMA did not exist at the time, and only sectorial rules with environmental relevance were in place, this company

⁴⁹ The bibliography used in numeral II-IV is the following: Astorga Jorquera, Eduardo. *Sistema de evaluación de impacto ambiental. Régimen jurídico. En especial aplicado a la actividad minera*. Editorial Jurídica Cono Sur Ltda. Santiago, abril 2000; Gobierno de Chile, CONAMA. *Lineamientos institucionales de participación ciudadana para el sistema de evaluación de impacto ambiental* (http://www.conama.ci/seia/infogen_seia.htm); Gobierno de Chile, CONAMA. *Participación ciudadana temprana en el marco del sistema de evaluación de impacto ambiental. Guía para titulares de proyectos de inversión* (http://www.ci/seia/participación_ciudadana_temprana.htm); Cuerpos legales: Ley 19.300 sobre Bases del Medio Ambiente, Decreto 30 de 1997, MINSEGPRES, reglamento del SEIA.

Esquema 1.2:

La participación temprana en el contexto del Sistema de Evaluación de Impacto Ambiental



decided to undertake an EIA and comply with the corporative guidelines and policies of their owners, and with the minimal environmental impact assessment program required by the Dirección General del Territorio Marítimo y de Marina Mercante.

Even though the obligation for citizen participation did not exist, the study was undertaken closely with the authority and different community groups and the academic world.

In 1992, Minera Escondida decided to construct a plant of cathodes in Coloso and prepared an EIA which was voluntarily submitted to the sectorial authorities. As part of the project, 40 meetings with the community were organized in approximately three months. At that time, it was routine for companies to attend conventions like the Sociedad Chilena de Ciencias del Mar to make known its experience of the monitoring and control program of Coloso. Later came other projects where the company held early meetings with the interested community, including in advance of the presentation of the study before its evaluation. In this manner, the company took into account important aspects from the perspective of the community.

During the last few years, Minera Escondida has made progress in organizing early participation workshops for their investment projects. It has also explored other communication mechanisms such as the publication

of scientific books after years of research. These books have prestigious editorial committees who have allowed for massive amounts of useful scientific information to be disseminated. Another mechanism has been the production of educational videos that present the achievements and challenges of participation and environmental issues.

According to the executives of the company, the lesson learned from this experience has been the usefulness of attentively listening to the stakeholders. A way of doing this is by creating spaces where the community can express their points of view on environmental issues related to the company; another is the full, critical, independent and extensive participation of the scientific community in the evaluation and monitoring programs, which include periodic audits.

Minera Escondida reflects a successful example of citizen participation in environmental assessment and management of investment projects. In this case, CODEFF was summoned to participate as one of the involved actors.

III. CITIZEN PARTICIPATION AND MINING IN THE UNITED STATES

1. Introduction

In 1969, the instrument for environmental impact assessment in the United States was formally institutionalized, when the National Environmental Policy Act (NEPA) was passed. This law is intended to improve the administrative procedure and promote informed decision-making from a social and environmental perspective. The following report briefly details the development of environmental impact assessment subject to NEPA, as well as the principle components of the public consultation mechanisms that are applied to the proposals and mining activities in the United States.

2. Environmental Impact Assessment Process

NEPA requires an environmental impact statement (EIS) to be prepared if: (1) there is a proposal, (2) for major federal action, (3) significantly affecting the quality of the human environment⁵⁰. The law is intended to promote informed decision-making, but does not itself require selection of environmentally desirable approaches by the federal agency.

NEPA applies to major Federal actions, which include actions by private companies that require a permit or formal approval from a federal agency to proceed. Thus, NEPA procedures may come into play if a mining or exploration operation is on federal land, or if such an operation on private land requires a federal permit.

In many cases mining operations on non-federal land (i.e., private or entirely state-owned lands) do not require a federal permit and will, therefore, not necessarily trigger the EIS procedure. Two types of federal permits that may be required for a mining operation on non-federal land and thus initiate the EIS procedure are: permits to fill wetlands, or discharge permits for water pollutants in the few states that do not have federal approval to operate their own discharge permit programs.

2.1 Environmental Impact Statement (EIST) Procedure

Under NEPA, the federal land and management or permitting agency is responsible for conducting the environmental impact assessment process.⁵¹

The process begins when a mining company submits its application for approval of a plan of operations to mine on federal land, or applies for a federal permit associated with mining operations on private land. The federal agency must determine whether an *environmental impact statement* (EIST)⁵² is required. Federal agencies may adopt, regulations identifying certain routine, low-impact activities that may be categorically excluded (CE) from preparation of an EIS. Such CE activities typically involve those, such as mineral prospecting activities, that do not involve the disturbance of the land surface or use of mechanized equipment.

If the activity is not eligible for a CE, the agency may prepare an initial «environmental assessment» (EA) which is used to determine the potential environmental significance of an action. If the EA reveals that an exploration or mining project may significantly affect the quality of the human environment, the full EIST is required. The EA must include a discussion of the need for the proposed action, alternatives to the

50 42 United States of America Code , sección 4332.

51 The procedures summarized in this section follow the NEPA regulation adopted by the Consejo de Calidad Ambiental, 40 CFR, parts 1500-1508, that sets out the parameters for the specific procedures of the NEPA adopted by the federal agencies.

52 Although an Environmental Impact Statement is known in the U.S. as an EIS, we will use the acronym EIST so as not to cause confusion with EIS (Environmental Impact Study) as used throughout the text.

proposed action and environmental impacts of the proposed action. The federal agency prepares the EA based on the agency's own information as well as information submitted by the operator.

If the EA shows that there will be no significant impacts, the federal agency prepares a «finding of no significant impact» (FONSI), which briefly explains why the project will not significantly affect the environment. If a FONSI is issued, no EIST is required. If the proposed action is similar to one which normally requires an EIST, then the FONSI must be made available for public review for 30 days before the agency makes its final determination as to whether to prepare an EIST.

If the EA reveals potentially significant impact, then an EIST must be prepared. An Agency may also determine that an EIST is necessary without first preparing an EA. If an EIST is required –as is normally the case for large-scale mining projects- the responsible federal agency must invite the public to participate in «scoping» the EIST. Scoping is «an early and open process for determining the scope of issue to be addressed and for identifying the significant issues related to a proposed action.⁵³ The agency must publish a «notice of intent» in the Federal Register and in other publicly accessible places, such as newspapers in the vicinity of the proposed mine site, inviting the public and other agencies to identify issues, potential impacts, and alternatives that should be studied in the EIS.

Following the scoping process, the responsible agency prepares the draft EIST. This document is filed with the Environmental Protection Agency (EPA) and the Council on Environmental Quality (CEQ) and made available to the public for review and comment.

The draft EIST contains: a description of the proposed action; alternatives to the action; possible mitigation measures; a description of the area where the action will take place; the significant effects (both in the short and long term) of the action on the environment; the irreversible changes to the environment caused by the action; monitoring programs; and the organizations consulted during the preparation of the draft EIST on the action. The public may submit comments on the draft, and the agency preparing the EIST must respond to any comments by modifying the final EIST or stating why the comments did not require any modification to the final EIST.

The final EIST is published, filed with the EPA and CEQ, and made available to the public. There is a 30-day waiting period between the filing of the final EIST and the agency's decision on the project, which ensures that the agency has sufficient opportunity to consider the EIS before making its decision, and allows time for additional comments.⁵⁴

2.2 Environmental Impact Statement Administrators

The two major federal agencies responsible for managing mining on federally owned public land are the Forest Service (FS) and Bureau of Land Management (BLM). These agencies are under different departments of the federal government (the Department of Agriculture, and the Department of the Interior, respectively), and operate with differing regulations.

Under FS regulations⁵⁵, any person proposing to conduct mineral extraction operations must file either a plan of operations or a notice of intent to operate. A plan of operations is required whenever the operation is certain to disturb surface resources. A notice of intent to operate is filed when it is only possible that operation will cause a disturbance to the surface resources. The FS reviews notices to determine whether a plan of operation must be filed. The FS must prepare an EA in connection with the review of a plan of operations, unless the FS determines from the outset that an EIST will be prepared. Approval of a plan of operations for a mine that would cause considerable surface disturbance, over 700 acres in a 10,000 acres road less area, always requires an EIST under FS procedures. An EIST is required in other circumstances if the proposed activity will significantly affect the environment.

The determination as to whether mining activities on BLM lands require an EA or EIST depends on which category of operations the proposed activities fall within. BLM regulations establish three categories

53 40 C.F.R., sections 1501.7 y 1508.25.

54 The flow diagram of the DIA procedure can be found at the end of the document.

55 36 C.F.R., section 281.

of mining operations based on the impact of the operations: casual use, notice operations and plan of operations.⁵⁶

«Casual use» operations are those involving activities ordinarily resulting in only negligible disturbance of the land and resources –such as prospecting without the use of earthmoving equipment- and require no approval by BLM, and no EA or EIST is required. «Notice» operations are those that will cause a cumulative surface disturbance of five acres or less during any calendar year. Although notice of such operations must be filed 15 days before commencing operations, no approval by the BLM of the notice is required and thus no EA or EIST is required. All mining activities that exceed the five-acre disturbance level, or that will take place in certain designated conservation area, must submit a plan of operations for approval prior to commencing operations. BLM officials will conduct an EA in connection with review of the plan of operations and an EIS may be required depending on the significance of the impact. An EIST is always required in connection with the approval of any mining operation where the area to be mined over the life of the mining plan, including an area of disturbance, equals or exceeds 640 acres.

If a mining or exploration activity occurs entirely on non-federal (state or private) land, and no federal permit is required for the kind of operation contemplated, then NEPA does not apply and no EA or EIST is required. However, a number of states where metal mining occurs -including California, Montana, and Washington- have their own «little-NEPA» laws that require preparation of environmental impact assessments in connection with private activities that need state permits. In areas where both federal and state laws govern the EIS process, the processes are coordinated.

3. Common participatory mechanisms

In the United States, numerous procedures provide for citizen participation in the governmental decision-making process. Some of the most commonly used participatory mechanisms in the United States are:

- Notice and comment rulemaking: A procedure for developing «rules» that requires the agency to notify the public of a proposed rule, and to consider written comments submitted by the public before adopting the rule.
- Legislative hearings: Hearing conducted by the legislature during the legislative process that provide the public with an opportunity to comment on the law before or during its creation.
- Referendum: A process used in some (western) states by which members of the public can draft laws and place them on the ballot for public vote (thus, bypassing the state legislature).
- Judicial Review: The right of citizens to challenge administrative decisions in a court of law when a citizen suffers a legal wrong because of agency action, or is adversely affected or aggrieved by agency action within the meaning of a relevant statute.
- Citizen Suits: The right of the public, under certain statutes, to sue the government when a statute is not properly enforced or employed or to sue a company that has failed to comply with its environmental permit. In order to bring a citizen suit, the citizen or groups must first give notice to the government and company so that they can take appropriate action to remedy the situation. The citizen must also demonstrate how the government's failure to enforce, or the company's failure to comply, has caused harm to the citizen.
- Good Neighbor Agreement: An agreement between a community and company that wish to use the land near or in the community (see later on).
- Advisory Committees: Committees established by the government, with members representing diverse stakeholder groups, whose goal is to advise the government on a specific issue.
- Administrative Hearings: Public hearings conducted by agencies to obtain the view of interested persons and organizations on decisions pending before the agency (such as permit decisions, rulemaking decisions).
- Public rights of access to information held by the government (see later on).

⁵⁶ 43 C.F.R., section 3809.

Additionally, opportunities for citizen participation in the EIA process are provided by the regulations of the Council for Environmental Quality, the Forest Service, Bureau of Land Management and other federal agencies.

If an EIST is required, citizen participation begins in the scoping state with the publication of the «notice of intent» in the Federal Register and in local publications, such as newspapers. Scoping usually takes place in a meeting, or series of meetings involving the public, the operator and responsible government agencies. These meetings are usually held in one or more locations near the project site and/or cities near the project site. The scoping process is organized by the lead agency conducting the EA; this agency is assisted in the process by other agencies with jurisdiction or expertise, called cooperating agencies.⁵⁷

Next, the public is entitled to review the draft EIST prepared by the agency. Public notice of the draft EIST is given and the public then has no less than 45 days to prepare and submit comments on the draft EIST. A public hearing is often held to receive additional comments on the draft. The responsible agency then prepares the final EIST, which must include responses to all of the comments received.

The final document is circulated to all agencies, organizations and individuals that submitted comments, filed with the EPA and CEQ, and notice of the final EIST is published in the Federal Register. NEPA regulations impose a 30-day waiting period between the filing of the final EIST and the agency's decision on the project, which ensures that the agency has ample opportunity to consider the EIST before making its decision and allows time for additional comments.

After completion of the EIST, the responsible agency makes its decision. The agency however, is not required to approve the most environmentally protective alternative identified in the EIST, nor is it required to adopt all of the mitigation and monitoring measures recommended in the EIST.

The agency's record of decision may adopt such requirements (which are intended to be incorporated in permits, plans of operations, or other enforceable documents). Judicial review of the EIST (or EA if no EIST is prepared) is limited to questions of procedure, and whether the document contains the required analysis of alternatives, environmental impacts and mitigation. As long as the responsible agency has complied with the procedural requirements of the statute –including consideration of alternative and identification of impacts- then the courts will not evaluate the merits of the agency's substantive decision on the project.

The Forest Service and Bureau of Land Management also have regulations on public access to information concerning mining activities that may apply in the EA process (see further on).

4. Other legal mechanisms

4.1 Notice and Comment Rulemaking

Notice and comment rulemaking requires that the government agency notify the public of a proposed rule and consider written comments submitted by the public before adopting the rule. The process of notice and comment rulemaking also provides for agency consultation with parties affected by the proposed rule as well as the right of the public to submit a petition asking an agency to begin a rulemaking process. The procedures for notice and comment rulemaking are provided for in the Administrative Procedures Act as well as other legislation.

4.2 Judicial Review of Rules

After a rule has been adopted, any aggrieved person may file a petition asking a court to review the rule. Judicial review of a rule examines the rule's constitutionality, consistency with the statute under which the rule was issued, and whether the proper procedures were followed in the creation of the rule. The court may overturn the rule on any of these grounds. In addition, the rule may be declared void by the court if it is deemed «arbitrary and capricious» or otherwise not in accordance with the law.

⁵⁷ 40 C.F.R., section 1501.5.

4.3 Notice and Comment on Permitting

A permit is a legal document used at the federal, state and local level that specifies the conditions under which a regulated firm may operate the types and amounts of pollutant it may discharge, and requirements as to reporting, operation, maintenance and all aspects of monitoring and record keeping).

There are many opportunities for the public to participate in the permitting process. The public may participate in the identification of companies that need a permit. Once a permitting application is filed, the public is notified of the filing and a period is set to the public to submit comments. In certain cases where there is sufficient public interest or controversy, the agency may hold a public hearing to receive comments on a permit decision. Such a public hearing would be held in addition to the written comments on the permit application.

Examples of permitting processes that call for public notice and comment are the FS and BLM regulations that govern the approval of a plan of operations. Commenting on permit applications is often coordinated with commenting on the EIA that accompanies the permit decision process, but these are separate legal requirements.

4.4 Administrative Appeal/Judicial Review of Permits

Permit decisions are subject to administrative and judicial appeals. The Administrative Procedures Act, the Federal Lands Policy Management Act, Forest Service Organic Act and rules, and other substantive laws that address permitting on both the state and federal level provide specific administrative appeal procedures for each type of permit. If the party that filed the administrative appeal is still dissatisfied with the outcome, that person may petition for judicial review of the decision.

4.5 Access to Information

In the United States the public can obtain access to federal government records through the Freedom of Information Act (FOIA), a general-purpose law that applies to most government information. FOIA require that:

...each agency, upon any request for records which reasonably describes such records and is made in accordance with published rules stating the time, place, fees (if any), and procedures to be followed, shall make the records promptly available to any person.⁵⁸

Other statutes that contain provisions for access to information are the Clean Air Act, Clean Water Act, the Resource Conservation and Recovery Act and individual state laws.

The FS and BLM also have regulations on public access to information concerning mining activities. All data submitted to the FS is available for examination by the public at the Office of the District Ranger. Information designated by the operator as confidential information concerning trade secrets or privileged commercial or financial information will not be available for public examination, and may include the known or planned location of certain exploration pits, drill holes, and excavations pertaining to location and entry. However, information needed to prepare the EIST is made public, and very little information actually qualifies as a trade secret under FOIA. Other submitted information may be examined by the public at the office of the authorized officer, in accordance with the provisions of the FOIA.

The public can also attain access to information about environmental effects of mining and other industries through the Emergency Planning and Community Right-to-Know Act (EPCRA), which requires facilities to record and submit information on their pollution discharge amounts and types.

The Environmental Protection Agency (EPA maintains the data in its Toxic Release Inventory (TRI). The public has the right to review the information contained in the TRI about the pollutants released into the environment (e.g., air, water, land, and transfer of waste) by the facilities. The TRI database is accessible over the internet, through computer-readable copies of the inventory that can be purchased from the EPA, or through asking EPA to search the inventory for particular information.

58 5 United States of America Code, section 552.

By accessing the TRI database, a citizen can quickly obtain a report on which companies are discharging what chemicals in what quantities to what media in any part of the country. In 1997, the EPA promulgated a regulation that added seven industry groups (including the mining industry) to the list of facilities subject to the EPCRA reporting requirements. This mandate became applicable to the mining industry for the 1998-reporting year.⁵⁹ The Clean Air Act, the Clean Water Act and the Surface Mining Control and Reclamation Act also require release of information on pollutant discharges.

Federal and state mining and reclamation laws also require mining operations to establish monitoring plans. Proposed regulations for BLM lands require a plan for monitoring the effect of operations which will demonstrate compliance with the approved plan of operations and other applicable federal or state environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions as necessary. In addition, monitoring and reporting may be required as elements of the various plans that must be submitted to state regulating authorities, in connection with mining operations, as part of the state permitting or other regulatory processes. Many states also require annual reports on acreage mined and reclamation accomplished during the year.

4.6 State Provisions for Bond Releases

Some States provide for public comment on agency decisions on whether or not to release financial assurance guarantees provided by mining companies to assure their completion of reclamation. Public comment is triggered when the mining company reports it has completed its reclamation obligations and requests release of the performance bond, letter of credit or other surety.

4.7 Citizen Suits for Enforcement

Citizen suits are specific statutory authorizations that allow any citizen to sue the government to enforce that statute. Citizen suit provisions also allow citizens to file enforcement cases against polluters, permitting the citizens to act as «private attorney generals». The possibility of citizen lawsuits leverages government enforcement efforts by empowering people who are directly harmed by pollution to do something about the pollution. The Clean Water Act, Clean Air Act, Endangered Species Act, and Resource Conservation and Recovery Act, among other state and federal statutes, provide for citizen suits.

4.8 Endangered Species Act

The Endangered Species Act (ESA) allows the public to petition for the placement of a species that they believe is in decline on the endangered or threatened species list. The other principal forum for citizen participation provided by the ESA is the opportunity for the public to bring citizen suits against the government when they think that the Act is not being properly enforced.

In the case of mining this would include the right of the citizens to sue if a mining operation damages habitat of the endangered/threatened species or otherwise results in the unauthorized killing or harming of the species.

4.9 Federal Advisory Committee Act

The United States Congress enacted the Federal Advisory Committee Act in 1972 in order to govern the establishment, operation and administration of advisory committees. Advisory committees allow the government to acquire expert advice, ideas and opinions from the public on issues ranging from policy questions to particular problems or regulatory issues. Advisory committees must have a balance of interest groups, provide public notice of the meetings and open all committee meeting to the public.

⁵⁹ 62 Reglamento Federal 23890 (May 1st. 1997) This regulation incorporates, among others, Code 10 to the Clasificación Industrial Estándar, with the exception of Codes 1011 (Iron Mineral Extraction), 1081 (Metal Extraction Services) and 1094 (Uranium-Radium-Vanadium Minerals).

5. Non-legal mechanisms

There are many guaranteed rights of citizen participation in U.S: laws and regulations. However, federal and state agencies may voluntarily decide to allow citizen participation. For example, even though there are no requirements for public involvement in the EA (other than the limited right of the public to review a FONSI before final determination as to whether an EIS is necessary), the federal agency conducting the EA may elect to conduct public scoping meetings and allow for public review of a draft EA.

Additionally, companies proposing a mining project may voluntarily provide for opportunities for the local community and other to participate in the design and operation of the project, especially when sensitive land use issue, indigenous rights, etc. are involved. These opportunities may include town meetings or the negotiation of Good Neighbor Agreements. Good Neighbor Agreements allow a community to negotiate specific commitments with large and small industries concerning health and environmental concerns. The two groups can negotiate terms for use of the land and conduct of the operation that address these concerns. This process generally does not involve the federal government.

6. Successes

The most important and effective elements for citizen participation in the EIST process are: the scoping process, the analysis of alternatives, commenting on the draft EIST and the judicial review of the EIST procedure.

The scoping process provides for public input from the inception of the EIST process, thus allowing the agency to hear and evaluate, from the beginning, the various opinions and concerns of the public about the proposed action. Including the public from the outset is not only beneficial because the public is informed of the proposed actions early in the process, but also because oftentimes the public can provide the agency or contractors with suggestions regarding the action that had not previously occurred to the agency. Moreover, it ensures that issues that are important to the public, local governments or other organizations are studied during the EA process.

Allowing the public to suggest and comment on alternatives to the action is critical because the public can suggest modifications or alternatives to the proposed action that can avoid or minimize environmental harm. This requirement also acts as a guarantee to the public that the agency will assay all reasonable alternatives to the action, including the alternative of not proceeding at all with the action.

The process of allowing the public to review and submit comments on the EIS is beneficial because it affords the public another opportunity to express their views on the proposal, to correct errors, and to evaluate the alternatives and mitigation measures. The NEPA regulations require the agency creating the EIS to acknowledge and respond to the public's comments, which further assures that reasonable comments are not simply dismissed or ignored.

The final area of the EIS process that functions well to incorporate citizen participation is the ability for the public to bring the agency that conducted the EIS to court when the agency has not properly adhered to the procedures either the EIS. The ability of the public to function as a watchdog for the process forces the agencies to follow the rules for conducting an EIS and involve the public. However, NEPA does not guarantee or require that the agency select the optimum environmental alternative, but it does require complete transparency and informed decision-making.

The dispositions of the NEPA, FOIA and other relative laws that guarantee the access from the public to the planes of the mines and the applications of permits and information in environmental matter, are elements of fundamental importance for the success of the citizen participation in the system of EIA of United States.

Critical to the success of citizen participation in the U.S. EIA system are the provisions in NEPA, FOIA, and other related laws guaranteeing public access to the mine plans, permit applications and environmental data.

7. Weaknesses

Although the formal and informal EIA procedures in the U.S. provide many opportunities for citizen participation in the process, there are significant weaknesses in the U.S. approach to citizen participation. Most importantly, an EIST is only required for «major Federal actions». Thus, unless there is a state law that provides for EIST on non-federal land (e.g., privately owned land and State owned land), most actions on these lands will not require the preparation of an EIST. A Federal permit, which is considered to be a major federal action, however will trigger the EIST process. Examples of activities that would require a federal permit are the filling in of wetlands, and mining where there is an endangered or threatened species present on the land.

The coordination of the EIST procedure with the process of issuing separate permits is also often viewed as a weakness of the system. If these two procedures are not coordinated it can greatly lengthen the time required for the completion of the entire process. Even though on many occasions a lengthy process will assure the consideration of all alternatives, it may lead companies to seek opportunities in other countries where there are fewer or less stringent regulations.

The use of EAs, rather than EIST, may also lessen the effectiveness of citizen participation in the EIA process because there are no set requirements for citizen participation in the EA process. Often the public is not involved until after a FONSI has been prepared and issued in these cases. However, the majority of major mines on federal land as well as significant modifications to the mines require an EIST or a supplemental EIST, in the latter case.

Finally, although NEPA requires the EIST to identify mitigation measures for the proposed action, it does not require the decision-maker to adopt those mitigation measures. Even where there is a decision to adopt the environmentally preferable alternative (or any other alternative), the mitigation measures associated with the chosen alternative may not be implemented unless that requirement is incorporated in a permit or approval of plan of operation. Mitigation measures identified in the EIA are only enforceable where (1) the decision-maker decides they must be implemented, and (2) incorporates them in a document that is itself independently enforceable (e.g., a permit, a lease, etc.).

IV. CITIZEN PARTICIPATION AND MINING IN MEXICO

1. Introduction

Environmental impact assessment (EA) in Mexico has become one of the main instruments of environmental policy. However, in the case of mining, the application of this instrument has had some difficulties, some due to regulatory problems and others as a result of the mining activity itself.

Since the publication of the Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA) in 1988, and the reforms in 1996, this environmental policy instrument has lacked mechanisms and procedures to allow for citizen participation in the different stages of implementation, namely: formulating the environmental impact statement (MIA); assessing the environmental impacts; the follow-up stage, and if it is the case, actions for annulment against authorities and those responsible for projects who infringe the law.

Even though by 1988 the law had already established that records could be consulted, a procedure allowing for participation did not exist. In 1996, with the reforms to the LGEEPA and the publishing of the regulation of environmental impact, a more defined procedure for citizen consultation was established. Some mechanisms and procedures were set to facilitate participation, such as: integrating records for public consultation; the possibility of accessing them through the State delegation where the project would occur; requesting a public information meeting; and allowing for any private citizen to make observations to be considered by the authority.

In the case of mining projects, the mechanisms and procedures for public consultation are inadequate, as mining communities rarely have access to these records due to the distance from the delegations or access to the Internet to verify the statements to be assessed. Social factors also hinder the relationship between those responsible for mining installations and the bordering towns, which makes transparency of the process and communications difficult.

In this context, there is the need to explore new mechanisms and procedures, to promote access to information on one hand and, on the other, inform private citizens of the environmental impacts and risks, and the co-responsibility that companies, society and the governments have in contributing to avoid or mitigate them.

2. The environmental impact assessment process

2.1 Definition

The definition of the EA is provided for in Article 28 of the Ley General Del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA):⁶⁰

Environmental impact assessment is a procedure through which the Secretariat establishes the conditions that any work and activity will be subject with, if these may cause an ecological imbalance or exceed the limits and conditions provided for in provisions that apply to protecting the environment and preserving and restoring ecosystems, in order to avoid or minimize the negative effects on the environment...

2.2 Responsible authorities

Articles 5, 7 and 8 of the LGEEPA set out the responsibilities of the Federation, States and Municipalities on matters concerning social participation, information, environmental impact assessment and regulation of mining activities:

⁶⁰ Published in the official newspaper of the Federation on January 28th 1988, and modified on December 13th 1996.

Article 5. – The Federations faculties are:

...

X.- The environmental impact assessment of the works and activities provided for in Article 28 of this Law and, the issuance of the corresponding authorizations;

XIV. - The regulation of activities related to the exploration, extraction and beneficiation of minerals, substances and other resources of the subsoil pertaining to the Nation with regard to the effects that such activities may generate over the ecological balance and the environment;

...

XVI.- To promote society to participate in environmental matters, in accordance with this Law;

...

Article 7. – The authorities of the States in accordance to this Law and local laws on this matter are:

...

X.- The prevention and control of contamination generated by the use of substances not reserved by the Federation, that constitute deposits of a similar nature to those of ground components such as rock or products from its decomposition which may only be used to produce construction material;

...

XIV.- Management and the dissemination of State policy information on environmental matters;

XV.- Promoting the participation of society in environmental matters, in accordance to the Law;

XVI.- Assessing environmental impact of works and activities not expressly reserved for the Federation, under the present Law, and if it is the case, the issuance of the corresponding authorizations in accordance with Articles 35 BIS 2 of Law.....

Article 8. – In accordance to the Law and local laws on this matter, the following faculties correspond to Municipalities:

...

XIII.- Formulating and conducting information and dissemination of municipal policy on environmental matters;

XIV.- Participating in environmental impact assessments of works and activities under State jurisdiction, when those are to be undertaken within their boundaries.

2.3 Work and activities subject to the EIA process

Article 28 of the LGEEPA specifies the works and activities that are subject to a prior authorization by the Federation on environmental impact issues, through the Secretaría de Medio Ambiente Recursos Naturales y Pesca (SEMARNAP), namely:

- Hydraulic works, main roads, pipelines, gas pipelines, carboducts and poliducts.
- Petroleum, petrochemical, chemical, steel, paper, sugar, cement and electric industry.
- Exploration, extraction and the beneficiation of minerals and substances reserved to the Federation.
- Installations for the treatment, confinement or discharge of hazardous wastes as well as radioactive residuals.
- Harvesting of forests in tropical areas and of species difficult to regenerate.
- Forest plantations.
- Changes in the use of soil in forests, jungles and arid areas.
- Industrial parks where it is anticipated high-risk activities would be carried out.
- Works and activities in wetlands, mangroves, lagoons, rivers, lakes, and estuaries connected to the sea, coasts and federal areas.
- Other natural protected areas that are within the Federation's jurisdiction.
- Fishing, agriculture and aquaculture activities that could endanger species or cause damage to the ecosystem.
- Other works and activities within Federal jurisdiction that may cause damages.

Articles 28 and 31 of the LGEEP provide exceptions: (1) the regulation can determine the works and activities that, because of their location, dimensions, characteristics or scope, would not produce a significant environmental impact and therefore would not be subject to an EIA; (2) in the cases provided for in Article 31, the Secretariat should be provided with a preventive report, within 20 days, to determine the need for an environmental impact statement.

It should be noted that Article 5 determines that all works and activities should provide an environmental impact statement, even the exception cases.

2.4 Administrative procedure

Articles 31 and 35 bis of the LGEEPA, as well as Articles 9 to 28, provide the administrative procedures to be followed by SEMARNAP, in order to carry out an assessment and study.

The EIA administrative procedure is made up of six stages: (1) presenting the MIA; (2) integrating and review its content; (3) opening it to the public and, if necessary, carrying out a public consultation, and accepting any observations; (4) conducting an assessment; (5) determining a final resolution; and (6) monitoring and compliance of the resolution.

1. The proponent should present the environmental impact statement (MIA) before undertaking any work or activity provided for in the list of Article 28 of the LGEEP, unless it is excluded from this obligation, or is under one of the exceptions provided for in Article 31 of the LGEEPA. In these cases, activities or works would need a preventive report (IP)⁶¹ and the Secretariat should decide in a 20-day time period, whether they are actually under the exceptions in Article 31 and therefore do not require an environmental impact statement, but should adjust to the official Mexican regulations, ecological classification plan or any other provision.

Article 30 of the LGEEPA establishes what should be the minimum content of an MIA, namely: a description of the possible effects or impacts on the ecosystems of any work or activity, as well as the preventive mitigation, and other measures to avoid or reduce to the minimum, the negative effects on the environment. When a high risk activity takes place, a risk study should be included. The content, characteristics and modalities of the environmental impact statements and the risk studies will be provided for in the LGEEPA regulation, which is now under development.

The environmental impact statement should be presented in any of the two modalities provided for in Articles 10 and 13, private or regional MIA.

2. Once the MIA is presented, the Secretariat will continue the procedure by preparing a record, in a time period of no more than 20 days.

The Secretariat reviews the application to determine whether or not it complies with requirements provided for by the law and the official Mexican rules and regulations in accordance with Article 35 of the LGEEPA. In the case the MIA presents inadequacies that may prevent an EA, the Secretariat can make a one-time request for clarifications, corrections, or additions within a 40-day period after incorporating the file.

Article 26 establishes that the authority is obliged to add to the record: additional information it generates; technical opinions solicited; comments and observations made by those interested in the public consultation process; the published extract of the project; the resolution; security provided; and any modifications made to the project.

3. Once the above has been concluded, the Secretariat will proceed to open the record to the public and carry out a public consultation in the terms provided for in Article 34 of the LGEEPA.

During this stage, those interested in the project can participate by cooperating with the authority in identifying possible environmental impacts, and with proposals for additional prevention and mitigation measures, as well as other relevant observations.

Articles 37 and 43 address the following aspects:

- The Secretariat must publish weekly in the *Gaceta Ecológica*, a list of the authorizations, applications, preventive reports and any MIA received.
- The record should be opened to the public by the Secretariat.
- The right to consult the files on working days and during working hours in the Secretariat's office, as well as at the corresponding Delegation.

⁶¹ The preventive report is a document by which the characteristic of the project and the significant and potential environmental impact this would generate is made known, in a general manner, according to the instructive published by SEMARNAP.

- The right for any person of the community to petition and request a public consultation of a certain project and the Secretariat's right to decide whether to carry it out or not.
 - In the event the authority decides to carry out a public consultation, it should be based on the following: notifying the proponent; publishing an extract in the main relevant newspaper; if required by anyone in the community, opening the record to the public at the corresponding office; ensuring the right to put forward any observations, prevention and mitigation measures, within the following 20 days that MIA is opened to the public; and lastly, fulfilling the duty of the Secretariat to record in the resolution, the public consultation process, as well as the proposals and results, and publish them in the *Gaceta Ecológica*.
4. Once the Secretariat has the necessary information, and the public observations have been integrated in the record, it may proceed to assess the environmental impacts, in accordance with the rules, ecological criteria and guidelines provided for in the governments plans and programs, the urban development and ecological classification programs of the territory, as well as official Mexican regulations. Article 35 of the LGEEPA also points out that the Secretariat should assess the possible effects of the works and activities on the ecosystems, considering the group of elements they are composed of and not only the resources that would be subject to use or affected.
- The Secretariat may suspend, only once, the 60-day time period foreseen to prepare the resolution, in order to request clarifications, corrections, or additions. Also, it can extend the period for up to 60 additional days, if the dimension or complexity of the activity or work is justified and requires this extra time for assessment.
5. Finally, the Secretariat should dictate the environmental impact statement resolution, within a 60-day time period from its presentation.
- The resolution may: (1) authorize the activity or work to be carried out under the terms requested by the MIA; (2) conditionally authorize, the work or project, any modification of the project or establishment of additional measures of the; or (3) deny the authorization requested based on Article 35.
- The Secretariat may demand that financial assurances be provided when a project can produce serious damage to the ecosystem.
6. Following the assessment procedure, the Instituto Nacional de Ecología proceeds to verify the measures provided in the authorization. In the case of non-performance, the Procuraduría Federal de Protección al Ambiente may start an inspection procedure.

2.5 Government and municipal participation

For works or projects under Article 28, the Secretariat should notify the state authorities and municipalities of the MIA, so that they make a declaration as provided for in Article 33. Following this, the evaluation procedure is started. In the first phase, the application is reviewed for its compliance with the official Mexican laws, rules and regulations. Clarifications, corrections, or additions regarding the MIA content can be requested.

3. Citizen participation mechanisms

3.1 Social participation in the process

The first step for the public consultation process is publication of the assessment application by the Secretariat in the *Gaceta Ecológica*. The proponent should publish an extract of the project in a newspaper of large circulation in the area of the project, within 5 days following presentation of the application. Within the 10-day period after publication of the extract, any citizen can request the Secretariat to make the record public. The proponents can request that any confidential commercial information be reserved, as provided for in legislation applicable to industrial property.

The Secretariat, in coordination with the proponent, organizes a public meeting to inform the public about the technical and environmental aspects of the work or activity, in accordance with Article 34, III.

Any interested party can promote the establishment of additional prevention and mitigation measures and make observations within 20 days after the application is published.

Articles 34, V of the LGEEPA and 41, IV of the regulation, establish that the Secretariat will add any observations to the record and express in the resolution, the public consultation process. These should be published in the *Gaceta Ecológica*.

3.2 The right to environmental information

The right to environmental information is established in Chapter II; V, of the LGEEPA, which establishes that authorities in the three levels of government, should provide the public with the environmental information requested.

The authorities may deny this information when it is a confidential case or when national security may be affected. Whoever receives this environmental information is responsible for its appropriate use and must answer for damages caused by any inappropriate use.

3.3 Limitations and objections to social participation

The LGEEPA provides in Article 34 the right for social participation in the environmental impact assessment procedure (EA). However, in practice there are deficiencies in the public consultation procedures, caused by the lack of consistency between this process and the one provided for the EA, and the lack of mechanisms for effective observations and proposals by the authority.

The problems that prevent effective social participation procedures are:

- Lack of publicity regarding EIA applications. Although the law and regulations establish that these be published weekly in the *Gaceta Ecológica*, this does not happen. Even though the Secretariat publishes these applications on their web page, this means of communication does not reach of the majority of the population in Mexico.
- Inconsistency between the law and regulations as to access to the EIA record; while Article 34 states that the MIA can be open to the public, Articles 20 and 38 provide that all files can be consulted. This in practice generates differences of interpretation by the authorities as to which information should be available to the public.
- Lack of effective mechanisms to have timely access to the information in an EIA. To access a file from State authorities, they need to be requested.
- Lack of a clear definition in the law as to who has legal interests to promote the enforcement of legislation. If legal interest to be credited, a guarantee needs to be paid to suspend the work or project which originates the EIA.
- Lack of instruments, like mediation or arbitration, which allows communication between the different social actors to promote integration. The lack of mechanisms to promote consensus between the promoters and the public before the assessment of the project, has only generated conflicts after its resolution.

This problem is particularly important in projects of public interest, such as highways, airports, railroads, dams, etc., as well as projects associated to social-environmental impacts. For example, problems develop when a project generates impacts on social groups, and on their uses and customs associated to the environment, such as hunting methods, production and consumption, traditions associated to their environment, and work and knowledge of the natural elements for health and food purposes.

Public consultation under Article 34 of the LGEEPA is an optional authority of the environmental authority, which may give way to arbitrary decisions with regard to whether or not to convene a public consultation. Also, the law does not offer an instrument to request the revision of the resolution when the authority acts arbitrarily.

The obligation of having environmental impact statements open to the public has only made this into an additional step in the administrative procedure. Only a few people have applied or made use of this

mechanism. Lack of knowledge about this right, centralization of the information and the incapacity to interpret the meaning of the MIA are among the reasons for infrequent use. On many occasions, legal measures are insufficient.

NGOs often need to seek extralegal means to protect the environment – these are actions that are on the margins of the law but not necessarily illegal. Some of these mechanisms are testimonials: attracting attention to the problem; information; confrontation; protest; and direct action. Such activities sometimes lead to illegal actions in legal terms but legitimate ones in ethical terms. These mechanisms can be useful to avoid allowing the EA of a project to become a process that puts «green makeup» on a predetermined decision.

The technical incapacity of an authority to assess an MIA is due not only to the amount of applications but to the diverse technical skills required for the assessment.

Almost always, private companies hired by the promoter to elaborate the MIA only suggest modifications to the project; it is difficult to conclude the «un-viability» of a project. A feasible alternative would be to use public funds for civil organizations to hire consultants and evaluate projects.

4. Other formal citizen participation mechanisms

Article 157 of the LGEEPA establishes that the federal government has an obligation to promote citizen participation in the planning, implementing, assessing and monitoring of environmental policy and natural resources. There are different articles in the LGEEPA which seek to promote social participation in environment planning and in the formulation, implementation, and evaluation of diverse environmental policy instruments, such as the ecological classification of an area, establishment and management of natural protected areas, programs for ecological restoration, prevention and control of environmental contamination, and the protection of natural resources.

SEMARNAP is to compose mechanisms for consultation with social organizations (Art. 159 LGEEPA). This has materialized through the Consejo Consultivo Nacional para el Desarrollo Sustentable, whose duty it is to advise and provide the Secretariat with opinions and observations and assess the national environmental policy.

Article 180 of the LGEEPA establishes the rights of people in communities to challenge certain administrative acts that authorize work or activities that contravene legal provisions, programs for ecological classification or declaration of natural protected areas.

Finally, Article 189 of the LGEEPA provides that all social groups and private citizens, NGOs, associations and societies can denounce before the PROFEPA, all events, acts or omissions that may or could produce an ecological imbalance, damage to the environment or natural resources or contravene the law.

5. Informal mechanisms

Among the informal mechanisms, civil society has used extralegal mechanisms, such as peaceful demonstrations against a determined project. Additionally, it must be pointed out that the authority has paved the way for negotiation between the directly or indirectly affected parties, through informal consultation forums.

V. CITIZEN PARTICIPATION AND MINING IN PERU

1. Introduction

Peru is a country located on the central-west coast of South America. The relief of the terrain and the presence of the Cordillera de los Andes, which crosses the country from North to South, has allowed the development of multiple social-economic activities based on the natural richness of the territory. This not only places Peru among the countries with the most diversity of wild flora and fauna in the world, but also among the main producers of fishmeal and certain minerals.

Without doubt, mining is one of the most important productive activities due to the dynamism that the economy of locations where mining is carried out acquires and the flow of foreign currency that this activity represents to national economy as a whole. Historically, mining activities have caused considerable social and environmental impacts, in part due to a lack of regulation on these aspects, the emphasis in the responsibilities assigned to national authorities towards promoting economic activity and the difficulty to access the regions where mining projects take place, which are normally located at high altitudes with few roads that make it difficult for authorities (who also count with limited resources) to carry out their functions.

This situation is changing progressively in the country. Throughout the 1990s an environmental administration system was created based in: a national authority, the National Environment Council (CONAM); the definition and strengthening of responsibilities of sectorial environmental authorities (like mining and energy); the regulation of environmental protection in productive activities; and the creation of environmental tools, aimed at ensuring that environmental policies in the country are complied with.

The privileged instrument in this process is the environmental impact assessment, which has been the tool to articulate principles of environmental management (integration, prevention, polluter-payer, etc.) and obligations that owners of productive operations should meet to guarantee efficient environmental performance that is compatible with the objectives of preserving natural resources and environmental quality.

The mining and energy sector initiated this process. The World Bank, through the EMTAL Project (Energy and Mine Technical Assistance Loan), facilitated the financing, and the Ministry of Energy and Mines (MEM) was able to strengthen its environmental unit and undertake an environmental regulation process centered around a set of instruments of environmental management that later in time were included in the regulations of other productive sectors

Although citizen participation was reflected in the instruments of the energy and mining sector, it was only done so in a very limited manner. A public hearing was only established during the review and approval process of the environmental impact study, with strong deficiencies in the regulation of the first hearing; no citizen participation mechanisms were established during the elaboration phase of the study.

Nevertheless, citizen participation in Peru and the consequent right to information are recognized in different legal instruments, even in the Constitution. There are numerous negative environmental impacts that mining development can cause. Therefore, environmental regulations have governed the environmental assessment process in order to adopt the necessary measures to prevent and mitigate these impacts. In this context, citizen participation is important during all the stages of the process, to ensure an adequate implementation of these measures.

2. Environmental impact assessment process

The Código del Medio Ambiente y los Recursos Naturales (CMA), approved on September 8th 1990 by Legislative Decree No. 613, establishes in Article 8 that:

All works, project or activity, whether of public or private nature, that can cause intolerable damages to the atmosphere, requires an Environmental Impact study (EIS) subject to the competent authority's approval.

Next it specifies a list of the activities for which an EIA⁶² should be carried out. However, this was repealed by a final provision of Legislative Decree No. 757.⁶³

To replace the void left by derogating Article 8 of the Código del Medio Ambiente (CMA), Article 51 of Legislative Decree No. 757 established the following:

The competent sectorial authority will determine the activities that, due to their environmental risk, may exceed the tolerable contamination or deterioration levels or standards for the environment in such a way that these activities would definitely require an environmental impact study previous to their development...

Under this new approach, each competent sectorial authority is in charge of determining which cases would need an EIA.

As a result, the different competent authorities started to pass specific rules in order to regulate the EIA. This sectorial regulation and lack of coordination among the different sectors has generated different rules for EIA in each sector.

In this context, the regulation for mining procedures⁶⁴ provides that one of the requirements to obtain a concession for beneficiation, either for concentration, refining or smelting, is the presentation of an EIA. Subsequently in May 1993, the regulation for environmental protection in the mining-metallurgical activity was approved⁶⁵ and became the first to regulate an EIA in Peru. This regulation establishes that owners of mining-metallurgic activities are responsible for emissions, dumping and waste disposal into the environment as a result of the processes carried out in their installations. It also points out that the holders are obliged to present an EIA or an Adaptation Program for Environmental Management, Programa de Adecuación y Manejo Ambiental (PAMA),⁶⁶ according to the case.

The environmental regulation establishes that the EIA should be required by the following:

- The owners of the mining activities that go from the exploration to the extraction stage.
- The applicant of a mining or beneficiation concession.
- Those that expand their productions or the size of their beneficiation plants to 50% or more.

Initially, mining exploration activities were excluded from the scope of the environmental assessment process of the sector. Thereafter, Decreto Supremo No. 038-98-PCM,⁶⁷ was approved, which provided that these activities should be subject to the presentation of an environmental assessment, similar to the EIA, with the difference that it does not include a public hearing in the review phase on the part of the authority. However, when the new regulation on citizen participation of the sector was approved,⁶⁸ the requirement for a public hearing was established as part of the review phase of the EIA, even for the environmental assessment required for mining explorations. This requirement continued to be effective under the recent public consultation and participation regulations, but which added one or more prior

62 According to the Código del Medio Ambiente, the EIA will contain a description of the proposed activities and the direct or indirect foreseeable effects of such an activity in the social and physical environment, short and long term, as well as the technical assessment of these. It should also specify measures needed to avoid or reduce the damage to a tolerable level, and should include a brief summary of the study for publicity effects.

63 Ley Marco para el Crecimiento de la Inversión Privada, published November 13th 1991.

64 Decreto Supremo No. 050-92-EM, , published on 08/09/92.

65 Decreto Supremo No. 016-93-EM, published on 01/05/93, modified by Decreto Supremo No. 059-93-EM, Published on 13/12/93; Decreto Supremo No. 029-99-EM, published on 12/07/99; and Decreto Supremo No. 058-99-EM, published on 24/11/99.

66 In the environmental regulation the Programa de Adecuación y Manejo Ambiental (PAMA) was included for those activities that were being developed when this regulation was approved. The PAMA contains the necessary actions and investments to be incorporated into the mine-metallurgic operations, technological progress and/or alternative measures which seek to reduce or eliminate emissions and/or shedding and therefore comply with the maximum permissible levels determined by the competent authority.

67 Published on 30/11/98.

68 Resolución Ministerial No. 728-99-EM/VMM, published on the 09/01/2000, revoked by the R.M. 596-2002-EM/DM, published the 21/12/2002.

consultations before starting the EIA, which generates a change in the previous system and seeks to avoid conflicts like the ones initiated between the town of Tambogrande and the Manhattan Company.

The content of the EIA is regulated under Annex No. 2 of the environmental regulation, as well as in the guide to elaborate the EIAs, which has been approved by the MEM to help when preparing these studies and obligations associated to mining operations. Although this guide is not mandatory, it is typically considered by the consulting companies, since they may adjust to the ministries policies. To provide these Guides with strength, Decreto Supremo No. 053-99-EM has determined that the structure of the EIA must be formulated on the basis of these Guides.

The EIA should be developed by a consulting company, which should be registered with the Dirección General de Asuntos Ambientales (DGAA) of the MEM, and for that must comply with requirements specified in the Texto Unico de Procedimientos Administrativos (TUPA) of the MEM.

Regarding the qualifications and decisions by the authorities, these duties are carried out by DGAA personnel. A public hearing is a previous requirement before emitting the corresponding administrative resolution. Before, this requirement was obligatory for all EIAs; the new regulation on citizen participation in the proceeding approving environmental studies presented to MEM establishes that there are projects that could be exempt.

Control activities, after the EIA has been approved, are the mandate of private auditing companies that do the controlling and follow-up in representation of the MEM. Given the limitations the MEM has for effective control -due to the lack of personnel as much as for the lack of technical and financial resource-, the Ley de Fiscalización por Terceros was approved in 1992, which opened a registry to authorize auditing companies to control and monitor compliance of regulations of the sector. This byactivity is carried out with economic support of the companies, but in the name of the MEM.

There have been deficiencies in the application of this regulation, mainly due to public officials being forbidden to carry out direct inspections, which makes it difficult for them to adequately supervise the auditors work. These consulting firms are contracted and paid by the company entitled to the EIA or PAMA, an aspect which has been questioned because it is thought that this limits the auditor's objectivity. At present, the MEM is revising regulations to improve the supervision system of auditing firms. However, the model is accepted in general terms, to the point that it has been replicated by other sectors in their regulations on environmental protection.

3. Citizen participation mechanisms

3.1 General regulations

Civil participation in environmental management, particularly in the environmental assessment process, has been accepted and recognized in the Peruvian legal system through various legal instruments, even though its application is incipient. There are still difficulties that need to be overcome to effectively apply this instrument, including the lack of awareness with regard to the benefits it represents, the fear of politicizing the mechanisms, the lack of experience of the people with participation, centralism and the imbalance of powers between the involved actors.

With regard to environmental management, the first law that recognized the principle of citizen participation and the consequent right to information was the CMA, which makes reference to the possibility of the population participating in the definition of national environmental policy and in the application and enforcement of the instruments of this policy. This principle determines that the EIA are at the public's disposal in general, without prejudice that interested parties request that certain information be kept in reserve when publicity may affect the industrial or commercial property rights or their own security.

CONAM has been assigned the duty to promote citizen participation in a coordinated way through formal and informal mechanisms.⁶⁹

69 Article 4 (g) of Ley de Creación del CONAM and Article 31 of its organizational regulation.

3.2 Common citizen participation mechanisms

3.2.1 Legitimization to act in defense of the environment

Article III of the preliminary title of the CMA indicated the following:

Anyone is entitled to demand a quick and effective action before justice in defense of the environment and natural and cultural resources. Actions can be brought, even when the plaintiffs' or accusers' economic interests are not affected. The moral interest authorizes the action even when it is not directly related to the agent or his family.

An exception has been made to the Peruvian procedural normative, which demands that one needs to have a moral or economic interest to interpose a legal action. It also determines that non-profit organizations, whose goals are to protect the environment can initiate these actions, which is a step forward in environmental legislation as it recognizes the need to protect diffuse interests.

3.2.2 Access to information

Access to information is recognized in Article 2 (5) of the Political Constitution of Peru and in Article VI of the preliminary title of the CMA. The Constitution has also established the habeas data action as the instrument to protect access to information rights.

This citizen participation mechanism is very important, because if the population is not offered the ideal, necessary, sufficient and timely information necessary for an objective and truthful understanding of the project or activity of the proponent, the efforts and resources for a citizen participation plan would be in vain and insufficient. Without information, the population will adopt positions on the basis of prejudice or mistaken judgments.

However, even though there are rules that protect access to information, sometimes it is not easy to access information and mechanisms to access information for certain data, such as the results of the control process carried out by auditing firms, have not been provided.

It is important to point out with regards to citizen participation mechanisms that the Corte Suprema de la República resolved in August 1966 a legal action of habeas data,⁷⁰ brought by the Peruvian Society for Environmental Law against the Ministerio de Energía y Minas, in order to get access to information from this sector. The Resolution orders the Ministry to hand over to the plaintiff the information requested, protected under the right to access information provided for in Article 2, clause 5 of the Political Constitution of Peru and in the Código del Medio Ambiente. This legal decision will not only compel the Energy and Mine Sector, but also all sectors to regulate mechanisms for access to information, especially on environmental issues.⁷¹

3.2.3 Technical groups

CONAM has the duty to coordinate. It promotes harmonization of environmental policies of other authorities of the country, for which it has created a structural framework of environmental management (MEGA).⁷² This instrument seeks to: establish trans-sectorial coordination mechanisms that allow sectorial environmental policies to become harmonized with national environmental policies; resolve conflicts generated by overlap in duties or jurisdiction gaps; strengthen the public sectors capacity in environmental management; and coordinate with the private sector and civil society.

The MEGA is ruled by the principle of participation and reconciliation to promote the integration of representative organizations of the private sector and civil society in the decision-making process.

The coordination for environmental management in the MEGA are carried out in four operative levels:

⁷⁰ Published in the official newspaper *El Peruano* on 04/09/96.

⁷¹ CONAM/BID. *Environmental Impact Assessment System* Lima, 1999, p. 88.

⁷² Decreto del Consejo Directivo No. 001-97-CD/CONAM, published on 13/11/97.

- (i) Define the principles and objectives of the environmental management and sustainable development.
- (ii) Define environmental national policies, the national environmental action plan, and the inter-sectorial coordination and harmonization process.
- (iii) Facilitate the coordination among the State departments with environmental duties, as well as with the private sector and civil society.
- (iv) Execute and control instruments, policies and actions for environmental protection.

Through the MEGA, the Directive Council of CONAM can create technical groups. These groups are public and private multi-sectorial entities whose duty is to: elaborate proposals for the operation, application, and assessment of environmental management instruments; prepare specific proposals for establishing policies, plans, programs, and inter-sectorial activities; propose alternatives for the solution of responsibility conflicts; outline alternatives for the solution of environmental problems that involve or affect more than one sector and propose the elimination of overlapping sectorial faculties.

3.2.4. Pre-publication of norms

The pre-publication of norms is a practice that has been used during the last few years. For example, the Ministerio de Industria, Turismo, Integración y Negociaciones Comerciales Internacionales has been pre-publishing environmental rules so that the population can submit any comments or suggestions.

3.2.5. Public hearing

The public hearing is one of the most formal citizen participation mechanisms, because to carry it out, it is necessary to present the project to all the involved actors, government authorities, the population, environmental consultants, experts on the matter, and businessmen.

The purpose of the hearing is to receive contributions and comments from citizens, as well as to solve any doubts they have with regard to the proposal presented by the proponent of the activity. With these contributions the proposal will be enhanced on the basis of the information obtained and presented by those interested.

3.2.6 Prior Consultation

Prior consultation is a mechanism composed of workshops held in advance and convened by DGAA and applicable to diverse cases, such as before the beginning of the elaboration of the EIA, during the elaboration of the EIA, and when the owner of the project explains the EIA before the authorities. The number of workshops will be determined by DGAA in coordination with the Dirección Regional de Energía y Minas (DREM) respectiva.

3.3 Citizen participation mechanisms that regulate the EA process

In Peru, different citizen participation mechanisms have been provided, although the most accepted is the public hearing during the revision phase of the EIA. The following are some of the mechanisms that are being used.

3.3.1. Placing the EIA at the public's disposal

Article 11 of the CMA establishes that the EIA can be provided to the public in general. A similar provision appears in the citizen participation approval procedure for environmental studies presented to the MEM,⁷³ which replaces the previous one approved in December 1999.⁷⁴

According to the new regulation, one of the modalities of citizen participation in the approval procedure of the EIA is that of making these studies available to the public to review and consult. It has been

⁷³ Approved by Resolución Ministerial No. 728-99-EM/VMM, published on 09/03/2000.

⁷⁴ Approved by Resolución Ministerial No. 335-96-EM/SG, published on 28/07/96. Modified by Resolución Ministerial No. 391-96-EM/SG, published on 01/10/96.

established that the EIA be accessible to the public, at the MEM, in the regional offices of Mines and Energy, where the project is located and at the Municipal District in the area where the public hearing will take place. Copies of these documents are available by paying a fee equal to the cost of reproduction.

3.3.2. Public hearing

An important contribution of the last two regulations on citizen participation in the approval procedure for environmental studies presented to the MEM is that they provide that public hearings will take place at a location near the area of the project. With the revoked regulation on citizen participation, the public hearing could only take place in Lima, therefore limiting the participation of those affected by the development of an activity. Nevertheless, it would have been interesting for the regulation to establish some criteria with regards to how to convoke the meeting, that hearings take place in an accessible area, and that the most representative entities of the region be invited, such as regional and local authorities, social organization, universities, and NGOs, among others.

Another positive aspect of the new regulation is that any citizen can participate in the public hearing. Previously, it was required that those assisting the hearing be representatives of an organization, and they had to register before the date of the hearing, which limited the participation of natural persons and put unnecessary obstacles to participation.

The new regulation indicates that during the development of the hearing, participants receive a copy of the executive summary of the EIA. It requires that the executive summary have a minimum content to avoid companies presenting summaries that would prevent citizens from understanding the real terms of the EIA. For example, it indicates that the executive summary include the complete EIA index for the people who want to consult or photocopy parts that are of their interest. If this part of the regulation is not complied with, the EIA is considered as not having been presented. A mechanism has been provided to obtain the summary at least four days before the hearing, in Lima and at the regional offices of the area of the project.

The participants can accredit a translator before the board. With the help of the translator, or the secretary, illiterates or those having difficulties expressing themselves in Spanish, can ask questions or make observations. This aspect is very important as in the provinces of the country's different languages and dialects are spoken.

Although the modality of written participation still exists, in the new regulation there is the possibility for the mayors, presidents of the communities, and representatives of other entities to make statements, depending on the importance of the hearing. This last criteria is subjective and can be a restrictive factor for the participation mechanism, which should extend to other representative entities of the area, as mentioned above.

The questions formulated at the hearing, the answers, and documents the representatives would have handed in will be taken into account to assess the EIA. After the hearing, the interested parties can consult the study and send in their opinions and suggestions, which will be taken into account according to their «importance» at the moment of the assessment. The «importance» criteria are used once more, when a more adequate opinion may have been «justification» or «relevance».

There are no rules to regulate what contributions need to be considered or that indicate that the authority justify the reason for adopting or dismissing a contribution.

As we can see, public hearings are restricted to the review stage of the EIA. They are not concerned when the EIA is being developed by a proponent. There is the need to point out that the participation of the townspeople during the developing stage of the EIA is very important, mainly due to the experience and knowledge they have of the area where negative environmental impacts may occur.

3.3.3. Public consultation

The new regulation provides with the possibility of exonerating certain projects from the public hearing procedure in the EIA review stage. In this case, the public consultation will take place through a written notice published in the official newspaper *El Peruano* and a newspaper of the region where the project

will take place. Those interested can send their comments directly to DGAA or the regional office of Mines and Energy, up to 25 calendar days after the notice is published. This is an important measure, due to the amount of work the environmental unit has, but its use must be duly justified.

4. Other formal mechanisms

4.1 Legislative initiative

The Constitución Política del Perú points out that citizens have the right to present a legislative initiative, that is to say, present draft laws Congress is required to process. Also, the Constitution and Law on Citizen Participation ⁷⁵ determines that the legislative initiative on the part of citizens requires that it be accompanied by validated signatures of no less than 0.3% of the national electoral population.

4.2 Right to formulate petitions

The Ley Orgánica para el Aprovechamiento Sostenible de los Recursos Naturales establishes that any person has the right to be informed, as well as to participate in the definition and adoption of policies related to the conservation and sustainable use of natural resources. Therefore, the right a citizen has to formulate petitions and promote initiatives, of either an individual or collective character, before the competent authorities is recognized.

5. Non-legal mechanisms

5.1 Dissemination campaigns and public awareness

Dissemination and awareness campaigns generate in the population a greater interest in timely participation and in seeking consensus. These campaigns are complementary actions to the use of other citizen participation mechanisms and allow citizens and involved entities to have a more precise knowledge of nature, characteristics, and scope of the projects and the proponents work or activity. They avoid the distortions from indirect communication.

5.2 Commissions, workshops, working groups of sub-working groups

By means of commissions, workshops, working groups or sub-working groups, the opinions of specialized and representative groups of the different sectors of society (people involved, experts on specific issues or different action groups) can be made known. These mechanisms are normally used to carry out fine analysis regarding the specific aspects of the proposal.

5.3 Consultations

Consultations are mechanisms that allow us to hear general opinions, interests and aspirations of heterogeneous social groups through diverse techniques, such as assemblies, consultation forums that can take place in a direct or traditional ways through social means of communication or non-traditional means, such as email and Internet.

5.4 Interviews

The interviews are used to meet the perceptions and recommendations of the key actors, individually convened or in smaller groups, or to make strategic alliances.

5.5 Surveys

Surveys can be used to carry out specific consultations with a wide-ranging social group. The questions should be clear and objective, to avoid having any influence on the person consulted.

5.6 Publicizing of reports

The publicizing of the reports that are obtained through the different stages of the proponent's strategy of citizen participation provides one of the best means to achieve effective results in the participation process. Those reports should be advertised through suitable means so citizens can easily become aware of them.

6. Successful experiences of citizen participation in environmental management

Initially citizen participation mechanisms were not adequately considered by the proponents of works or activities that required the presentation of an EIA. However, as it became evident that the conflicts with citizens could be avoided with these mechanisms, they started to be incorporated in the environmental assessment process.

Although the experiences Peru has had with regards to citizen participation have not been totally successful (due to the limitations mentioned before), they reflect the advances in environmental legislation.

In the case of the EIA of the Camisea project presented by Shell, this company developed informal citizen participation mechanisms, through which they tried to establish adequate spaces for debate and dialogue. Among those mechanisms developed by Shell are the following:

- Working groups with the interested actors that were selected to participate in one or various activities.
- Workshops that allowed a number of interested actors to participate in an open debate forum.
- Individual meetings with the interested key actors to provide their specialized contributions on specific matters.

CASE STUDIES

I. CANADA: AQUARIUS MINE

1. Introduction

This study was prepared as part of a hemispheric project on public participation in environmental impact assessment (EIA) in the mining sector. The partners are established in Canada, United States, Mexico, Chile and Peru.

The following is a case study on public participation phase of the Environmental Impact Assessment of a mine located on Canadian territory. This study considers the Aquarius Mine, a gold mine located near the town of Timmins, Ontario, and besides describing the extent of public participation required in the process of the EIA in Canada, it takes into account the virtues and defects of the public process used in this particular mining site. The study does not examine in detail the legal framework for public participation in the mining sector in Canada; however, numerous references to the legal requirements are cited.

In a previous stage of this hemispheric project, the Canadian Institute for Environmental Law and Policy (CIELAP) prepared a panoramic chart of the legal mechanisms and other mechanisms for public participation in mining in Canada, titled *Public participation and mining in Canada*. This accompanying study concluded: «The perception is that while the public has legal opportunities to be heard, these are few, far between and of limited influence». To a certain extent, the result of this study corroborates this.

The Aquarius Mine case study confirms the view that although public participation mechanisms exist in the EIA framework for the mining sector, the public has very little influence in the development of environmental plans of the mining sites, or in the location of their installations. As determined, this is mainly because this phase is primarily intended to address the individual interests for the property (and potential nuisance claims), and not sustainable development. The phase of public participation in the EIA is also used so the community can easily accept the project.

As public participation manages to have a significant impact on environmental planning or in the approval of a mining project, there will be the need to introduce substantial changes in the way the public participates. Besides, public participation in this process, as required under Federal Canadian Legislation, does not necessarily lead to better results from a sustainability perspective. If public participation is to improve sustainable development and offer more protection against adverse environmental impacts, then these goals should be a guide for the responsible authority and proponent in planning the strategies to get the public involved.

2. Key Conclusions

2.1 Benefiting from Local Knowledge of Residents and Land Users

In general, the effectiveness of public participation in the EIA will depend partly on how familiar local residents are with the mining industry and the environmental impacts. The more the public is informed, the more constructive and incisive the criticisms. Obviously, if a proposed project is in an area where only a few people live, the contributions will be less effective for the environmental planning of the project.

Thus, as is currently happening, the results of the public participation phase of an EIA vary dramatically, depending on the location of the project and its proximity to a community familiarized with mining. Environmental planning of a new mine can benefit from local environmental knowledge only if the residents of the area participate in the process from the first stages.

2.2 Participation of non government organizations

The participation of non-governmental organizations is essential to provide an informed third-party review of a mining proposal. Non-governmental organizations with experience in impact assessment raise the global standards of the EIA process, and provide a much needed check and balance to the EIA process, administered by the government and the proponent.

The ability of non-governmental organizations to perform this watchdog function is limited by the financial resources of NGOs and the public who supports them. NGO participation in the review or development of an EIA is essential if the public participation phase of an EIA is to be credible. However, the effectiveness of NGO participation depends on whether those groups have adequate resources to conduct meaningful analyses of the comprehensive study.

As there are no guarantees that the NGO community will have sufficient resources to review each project proposal, thus, there is no guarantee that all EIAs will benefit from informed third party reviews. Without NGO participation in the review process, the government remains the only institution that has the technical capacity to review project proposals. The capacity of individual citizens to review technical documents for environmental planning of mine sites is extremely limited. Therefore, it is even more important that environmental NGOs and other consultants participate in the review of the EIA.

2.3 Existing bias towards individual property interests

Currently, the public participation phase of the EIA process is primarily concerned with addressing the potential impact on individual interests that may be affected by mining exploitation, rather than on enhancing environmental sustainability and sustainable development.

In the case of the Aquarius Mine, the public participation phase of the EIA was used primarily to identify and respond to individual concerns on the potential impact of the project on individual property rights. In the presence of these concerns, the EIA process contemplated compensation or other negotiated agreements. The proponent did not request input from the public which could enhance the sustainable development value of the project. The public participation sessions were carried out mainly to hand down to the public, the information of the project plans.

2.4 Sustainable development must be recognized as a goal for public participation

The public participation phase is not designed to assist in maximizing environmental sustainability and sustainable development; however, public scrutiny of environmental plans could potentially serve as an additional check & balance in the overall EIA process. Public scrutiny of the proponent's activities and the government's response is necessary to ensure at least a minimum standard of accuracy and reliability with respect to the government permitting process.

2.5 Democracy, Fairness and Sustainable Development

Three sets of values can be addressed through public participation in the EIA process: democracy (environmental justice); individual interests (fairness), and sustainable development. However, currently governments and companies are oriented primarily towards responding to individuals whose interests may be affected by mining exploitation. Sustainable development is only addressed if the public or NGO groups specifically address environmental concerns.

By far, the government and proponent spend the vast majority of the participation phase of the EIA responding to individual concerns. This aspect has many collateral benefits, which at times, may lead to environmental sustainability (for example: the people whose private interests might be affected by a project, may pressure the proponent to consider alternative approaches). However, the degree to which public participation will enhance sustainability is contingent on whether the local residents or NGO groups participate in the process focusing on general environmental concerns.

3. Key recommendations arising from this case study

3.1 Enhancing Local Residents and Land User Participation Early in the Planning Phase

Local communities can provide very valuable environmental knowledge to the proponent and government agencies. To benefit from such knowledge they must be consulted before developing the draft site development plans. Site development should be undertaken in collaboration with local land users and

residents at its earliest stage, if local knowledge is to have a significant impact on the development of the project. Many people have a profound knowledge of the environment around them. Their insights at the early stage of planning could have a significant impact on the environmental sustainability of a mining project.

However, in the current system, pertinent local knowledge is not sought early enough in the process. In fact, generally the proponent does not consider it in any of the stages of the project, except when answering any concerns of the environmental impact on private interests.⁷⁶

3.2 Sustainable Development Must Be Addressed Directly in the Participation Phase

If one of the purposes of the public participation phase of the EIA process is to enhance environmental sustainability of a particular project, then such values ought to be incorporated in all the phase. In all levels (federal and provincial), EIA legislation ought to clearly state that this is one of the goals of public participation. Still, the public -the local residents, land users and ONG groups- should be encouraged at an early stage of the process to contribute information that would enhance sustainable development.⁷⁷

3.3 Enhancing NGO Participation Will Lead to More Credible Results

If the improvement of the sustainable development is one of the goals it pursues when giving space to the public participation, then the governments should establish requirements to improve the participation of the environmental ONG groups in the process of the EIA. In this aspect, government financing would be important for the ONG groups so they could examine the EIAs independently. Early revisions would also avoid expensive litigations in the future and help identify practices that would allow saving money in the project plan.

Although it is difficult to increase government financing for the independent reviewers due to government budget cuts, the participation of the NGO groups, local groups of citizens, the first nations and other informed citizens is essential for the EIA not to lose credibility.

3.4 Adequate Notice means Informed Notice

For an efficient public participation process, the public should be well informed beforehand of the project and the opportunities to participate. In general, legislation on the EIA should guarantee that the public be properly notified of public consultation and of the right to participate in the revision of the EIA. Also, any public event that summons the proponent as part of the EIA process (like an «open house» or other public meeting), should be clearly identified as such, that is, the public should be informed of all the activities that form part of the process.

3.5 Access to the information

If the public is to have meaningful access to information, then government information resources must be properly maintained. Government databases must be set up in such a way that the public may access pertinent information with relative ease.

3.6 Third Party Independent Reviewers

Public participation is meaningless unless it is informed participation and is carried out appropriately. In areas where local residents and land users are not familiar with the mining sector, the public should be

⁷⁶ Principle 22 of the *Rio Declaration on Environment and Development* clearly states that the indigenous communities and other local communities play a role in terms of public participation: Indigenous people and their communities and other local communities have a vital role in environmental management and development because of the knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

⁷⁷ To obtain a panoramic view of the public participation process in virtue of the Canadian Environmental Assessment Law, see: *Mining's Many Faces, Environmental Mining Law & Policy in Canada*, CIELAP, pp. 30-31. virtue of the Law of Environmental Evaluation of Canada, see *Multiple faces of the mining: right and environmental politics in mining in Canada*, CIELAP, pp. 30-31.

provided with the resources they require to obtain professional, independent third party assistance in reviewing the EIA.

3.7 Public participation in a non mining region

In regions where there has been little or no prior mine development, citizens will be much less likely aware of the range of potential concerns. Therefore it is possible that the public participation process in such areas will be much less extensive and useful. This does not obviate the need for extensive public participation, but rather indicates that *different approaches to public participation* must be considered.

In such situations, the communities might need the assistance of environmental ONG groups. The ONG groups also play a key role when it is predicted that environmental impacts would extend beyond the local environment. For example, a mining project could have an impact on underground water that would extend to other municipalities and regions.

4. Related research questions

4.1 Definition of Public Participation in the EIA process

On the American Continent there are different conceptions of public participation. Since the governments are public institutions, it is possible that government intervention (on many levels: federal, provincial, municipal, the first nations) be made up mostly by townspeople. It is clear that the stronger and democratic the public institutions are, the more efficient their intervention in government processes will be. However, usually it is better for public participation in the EIA to be referred to as non-governmental but of the citizens. Therefore, this report is centered on the participation of the citizens.

Nevertheless, the following questions could become part of a major investigation on the role that the public institutions play in defense of the public's interests in the EIA process. Is it useful to consider to what extent is government participation a form of 'public participation'? Do the government departments of the environment and natural resources always act in the interests of the public? Does public participation include agency participation, i.e. different level of government? Does public participation include processes extrinsic to the EIA process, such as Municipal Board Hearing and appeals regarding zoning and permitting required under other legislation/municipal by-laws? How do we characterize public participation that occurs through the submissions made to the Ontario Municipal Board on zoning variances? Are such interventions to be considered an aspect of public participation? These and other questions are pertinent when considering the public institutions strong points when they carrying their duties determined by law and the environmental policies of the different countries.

4.2 Adequacy of Statutory Requirements for Public Participation

This case study is not an evaluation of whether the public participation requirements under (CEAA)⁷⁸ were adequately or successfully completed. This study is much broader, and looks at a specific example of how the mechanisms that are mandated under CEAA were implemented, and considers whether or not those processes took care of the interests, expectations and knowledge of the public.

4.3 Scope of Public Participation (Breadth of Citizen Consultation)

While examining the EIA documents, the following questions were considered. To what extent were local and non-local environmental organizations involved in the public participation process? To what extent is the success or level of public participation determined by the limited geographic scope? Was there an non-local interested parties? To what extent do they have the opportunity to participate? In Canada, are non-local concerns addressed adequately through the 45 day public comment period administered by the Federal Government?

⁷⁸ Environmental Assessment Act of Canada, SC 1992, c. 37.

4.4 Public participation and sustainable development

Did the public participation process contribute to sustainable development? To what extent did the submissions made by the public contribute to improvements in the environmental planning of the projects? Do broad public participation processes in the EIA for mining lead to better results from the perspective of sustainable development? What changes could be made to the public participation process to lead to more positive impacts on sustainable development? What changes could be introduced in the public participation process to obtain more positive impacts in sustainable development?

4.5 Primary concerns of the Public

What were the primary concerns of the public? To what extent were public concerns taken seriously by the proponent and the agencies responsible for the EIA? Was the public successful in influencing the overall design of the project? Did the proponent appear to be open to altering the project plan to accommodate the interests and concerns of the public? What criteria was used by the proponent and the government agencies for determining whether public concerns were legitimate and required modification of the existing plan? To what extent did the proponent rely on strictly defined legal rights when considering the concerns of individual stakeholders? Were other factors taken into consideration when addressing community concerns, such as aesthetics, traditional uses of the area, etc?

5. Observations and analysis

5.1 Background to the Aquarius Mine Project

By virtue of the CEAA, the proponent should carry out a formal comprehensive study and present it to the responsible federal authority. The consultation on the requirements for the study with the different governmental agencies began at the beginning of April 1995. The comprehensive study for the Aquarius Mine was completed in 1999, and approved by the Federal Government Department of Fisheries and Oceans in 2000. Project consultation with the various government agencies began as early as April 1995. The public participation phase began in January 1997, when the proponent issued a series of press releases about the project.

Most of the technical aspects of the project, including decisions about where the tailing pit and access roads would be located were made long before a non-governmental public consultation began.

5.1.1 Indefinite delay of the construction

Despite Federal approval of the project, the proponent did not move immediately into the development phase due to low gold prices, in spite of the Federal Government having approved the project and the proponent being legally authorized to start the project at any time. The mine site currently remains abandoned, and the company has not indicated when it plans to begin the development. Thus, this case study focuses on the successes and weaknesses of the public participation phase of the EIA, even though currently the mine is not under development.

5.1.2 Mine location and proximity to other mines

The proponent of the Aquarius Mine is Echo Bay Mines Ltd., based in Englewood, Colorado, U.S.A. The proposed mine site is located in the North Eastern region of the province of Ontario, Canada, near the city of Timmins, Ontario. Timmins has been a major mining centre for several decades. The proposed mine site lies in a geographical areas that has seen a great deal of mining activity.

The fact that the Aquarius Mine is so close to a major mining centre is very relevant to the overall conclusions that arise in this case-study. The effectiveness of the public participation phase of the Environmental Impact Assessment depends, in part, on how familiar the public is with the mining process. The people living near the site of the proposed Aquarius Mine are generally familiar with the mining sector, and have a sense of what the cost and benefits of mining development are for the community.

Moreover, as the economic development in the Timmins area is very closely tied to the mining sector, many residents have an interest in the success of mining operation. A pro-mining culture exists in the Timmins area, which may lead to a bias in favour of mining development. For these reasons, a broad public participation process that involves local residents and land users, as well as environmental NGOs, First Nations and other groups is necessary if the public participation phase is to serve its function as a check and balance to the overall EIA process.

5.1.3 Proximity to local residents and land users familiar with the mining sector

The location of the Aquarius Mine and its proximity to local residents and land owners who are familiar with the mining sector is very relevant to this case study. This case study must be contrasted with situations where a proposed mine is to be located in an area where there are not many people. It is more likely for this scenario to take place in the Northern region of Canada than in other parts of the continent, where mining is a relatively new economic activity. Alternatively, where proposed mining site is located near less populated areas, First Nations communities, those communities must be provided with adequate resources to perform professional assessments of the EIA. The credibility of the EIA (Comprehensive Study Report, in Canada) depends, in part, on whether the public is able to carry out its role in the check and balance of the EIA process. Without adequate technical resources, local residents and land users are less able to carry out this role effectively.

With regard to the Aquarius Mine, the proximity of the mine to residents who are knowledgeable about mining and the mining process had a great impact on the quality and effectiveness of the public participation phase of the environmental impact assessment for this mine. One of the key conclusions from this case study is that effectiveness of public participation in the EIA process depends largely on the citizens involved. The inhabitants of the Timmins area are also fully aware of the social and economic benefits that come with mining activity, and so, their interventions in the participation process are often shaped by multi-faceted motives, which are both supportive and cautious about the proposed mining activity. Many support it because of the economic opportunities. At the same time other are concerned about the potentially negative impact mining would have on fish, hunting animals, underground waters and tourism in the region. An important group of citizens have country cottages and they have great interest in conserving the natural heritage of this area.

5.1.4 The project

The mine is located in Macklem Township just east of Night Hawk Lake and immediately south of Highway 101, East of Timmins, Ontario (48° 30' 00"/ 080° 48' 00"). The proposed site is located in the same site of the former Aquarius Mine (a much smaller operation) which operated from 1984 to 1989. The former Aquarius Mine was an underground mine that produced 300 tonnes per day.

Recently, however, exploration of the area identified an ore body estimated to be 12,700,000 tonnes with approximately 2.54 grams of gold per tonne. The same studies indicated that the only economically feasible method of extracting the ore was to construct an open pit mine. The company estimates that once in full operation, the gold mine will support 7,500 tonnes per day of mining and milling over five years. The mine is located in a region classified as Boreal Shield, near Legare Lake, in the district of Cochrane

5.1.5 Land uses in the area: proximity to other mines

Most of the proposed project falls within the municipal limits of the City of Timmins, Ontario. Timmins has a population of 47,461 people [see EIA p. ix, according to 1991 census]. The main economic activities in the Timmins area are forestry and mining. The Echo Bay Mines proposal is not a unique land use for the region, in fact, there are already six active mines located in the municipal limits of the City of Timmins. Mining is recognized by the City Official Plan as one of the cornerstone activities of the local economy and it is actively supported. Most of the lands within the municipal limits are designated as wilderness lands. According to the official plan, mining development is permitted within wilderness lands.

Local rural residents live throughout the general region of the proposed mine and a large number of small cottage developments are located 2km to the north of the proposed mine site. Kettle Provincial Park is located 2km to the north.

5.1.6 Government representation and activity inside the region

The Aquarius Mine is located in a region where the administrative bodies of the Federal and Provincial governments are located. The proximity of government officials in the region in this case study must be contrasted to situations where the presence of government officials (especially from departments of natural resources and environment) is very limited or even non-existent.

Contrary to many of the new mining projects that have begun in America during the past decades, The Aquarius Mine project is in a region that is already familiarized with mining. It is evident that when new mining projects are developed in the areas that have not had any mining development, the government and the proponent encounter different challenges in the phase of public participation.

Government officials live in the town of Timmins and the inhabitants have close contact with them. Many government officials live in the city of Timmins and local residents have close connections with these bodies. Several Ministries have headquarters in the city, including the Ontario Ministry of Northern Development and Mines (MNDM), Ontario Ministry of the Environment (MOE), Ontario Ministry of Natural Resources (MNR) and Ontario Ministry of Labor. .

It is probable that because of the proximity of public institutions to the mining projects, this could influence in the way public participation in the EIA process would be carried out. This is because the government officials can be more dedicated to the activities of the public participation phase (by going to the public meeting, visiting the sites, the direct contact with the public, etc.). Their proximity of their homes to the proposed mining activity could also indirectly influence in the process.

5.1.7 Federal approval the comprehensive study

The Federal Department of Fisheries required that a Comprehensive Study under CEAA be completed. On June 30, 2000, the Federal government announced approval of the environmental impact assessment (Federal Approval reference # 9130). The mine is classified as a goldmine development. The mine is not considered to be a multiple undertaking, and has been approved as a single operation.

5.2 Description of the mining project

The proposed Aquarius Mine is located in a boreal forest region adjacent to the western side of the Frederick House Esker, a solid hill that developed due to a glacial movement during the last Glacial Era. The overburden in this area is very deep, and is estimated to be 60 to 80 meters thick. All of this will have to be removed in order to construct the open pit mine. The maximum depth of the mine will be 160 to 170 meters below grade.

Groundwater management near the open pit mine is considered to be a critical component of the overall environmental management plan because of the proximity to a regional aquifer (connected to the Frederick House esker). One of the main concerns of the public was the potentially negative impact of the mine on the groundwater levels of the region. The proponent and governmental authority recognized that even a small reduction in the level of underground waters could have a great impact on the lakes, rivers and streams in the immediate areas. Therefore, one of the most important elements of the proponent's development plans was the construction of an underground water barrier around the perimeter of the mining site.

Over the course of lifetime of the mine, the open pit mine will generate approximately 55 million tonnes of overburden and 18.9 million tonnes of waste rock. This massive amount of overburden will be located in a stockpile on the west side of the open pit. According to the comprehensive report, the chemical composition of the waste rock will not lead to acidification of drainage. Likewise, it is noted that the ore is low in heavy metals. However, the public had numerous concerns as to where the overburden would be stored, both because of aesthetic concerns and because of concerns about slippage of the overburden into a nearby lake.

Throughout the operation of the mine, ore will be hauled to a nearby processing mill. The ore will be processed at a mill that is located just south of the pit. The milling will be done in two steps: first, through gravity concentration; and second, through conventional cyanide leaching of gravity tailings and carbon-in-pulp recovery of remaining gold.

The mill effluent will be treated to eliminate cyanide and other heavy metals. The treated waste will then be discharged to a tailings containment basin where tailing solids will be retained. It is proposed that this basin be constructed in the already existing valley of South Crooked Creek which lays very close to the proposed mine site. According to the comprehensive study, the final effluent discharge will meet Ontario Ministry of Environment and Energy regulatory standards for discharges [EIA page vii]. Final effluent will be discharged at Crooked Creek, upstream of Moose Lake.

5.2.1 Infrastructure

Echo Bay Mines proposes to construct a mill building, maintenance and warehouse facility, a mine dry, a small office, a 4km access road, open de-watering wells, tailings and water lines, a 9km 115kV power lines, a fuel depot, an on-site hazardous waste landfill, two refrigeration plants, and site drainage facilities.

5.2.2 Environmental monitoring

Echo Bay Mines will conduct on-going monitoring of freeze wall performance, surface and groundwater quality, and air and noise emissions and of the area biological communities.

5.2.3 Closing plan

The Ontario Ministry of Northern Development and Mines (MNDM) required that a detailed closure plan be prepared. The purpose of the closure plan is to return the site to «natural or near natural» state upon completion of mining activities. The mine closure plan must include the removal of all surface equipment, machinery and infrastructure. In addition, general site restoration is required, including the development of a pit lake with a productive fishery, and the re-vegetation of all affected areas. The tailings basin will also be restored. All affected aquatic and terrestrial habitats must be restored in accordance with the Federal Government's Department of Fisheries and Oceans (DFO) and Ontario Ministry of Natural Resources (MNR) requirements. Needless to say, the proponent must post financial assurances to cover the costs of closure.

5.2.4 Construction of the mining location

It is proposed that the mine be constructed in three phases: preparatory development; freeze wall start-up; and main construction. The preparatory phase began in 1997, and included the construction of the access road, clearing the open pit area, drilling of freeze wells, manifold/header installation; freeze plant construction, and completion of the powerline. In phase two, the proponents will start-up the freeze wall. The freeze wall will be started in the winter, when the ground is already frozen. The final phase of the construction will take approximately 16 months to complete.

5.2.5 Construction of the frozen wall

The freeze wall was proposed as a way to protect the groundwater in the region from the adverse impact of the open pit mine. The freeze wall is to function as an underground frozen barrier to prevent groundwater from draining into the massive open pit mine. The intention is to construct the freeze wall so that it surrounds the entire perimeter of the open pit. According to studies undertaken by the proponent, the freeze wall will separate the mine from the adjacent aquifer, and will prevent any adverse impact to the groundwater in the region.

To construct the freeze wall the proponent must install approximately 2,200 freeze pipes into the overburden to the depth of the bedrock. The freeze pipes will encircle the 3,500 meter perimeter of the pit. These pipes are to be connected to two refrigeration plants which will pump -20° brine into the pipes. The freeze pipes will freeze the ground around the pipes once it starts working, creating a barrier to the flow of moisture and groundwater. The freeze wall will be a closed circuit system.

5.2.6 Public concerns about the freeze wall

One of the most controversial aspects in the proposal of the Aquarius mine was the construction of a

frozen wall to avoid the underground waters from flowing into the open pit. The public and environmental ONG groups that participated in the revision study (including Northwatch and Mining Watch Canada) outlined a series of queries during the public participation phase. The proponent cited various studies on which to base this construction and examples of other freeze walls in North America; in spite of this, the public continued to show skepticism and stated their concern on the «catastrophic failure» of this.

In general terms, the public showed concern of the freeze wall not protecting the underground waters and that the result would be a significant drainage towards the lakes, streams and aquifers of the region. In spite of the public's concern, the proposal was approved on the basis of technical reports prepared by consultant of the company and an independent report carried out by a professional engineer of Queen's University.

5.3 Requirements of concession of permits and licenses

A number of federal, provincial and municipal requirements shape the overall planning of the proposed mine.

5.3.1 Federal requirements

The Federal Fisheries Department required a comprehensive study under the Canadian Environmental Assessment Act. This act was triggered in Canada because the Federal Department of Fisheries and Oceans (DFO) determined that the project will result in the «harmful alteration, disruption or destruction of fish habitat» [EIA p. viii]. Therefore, an Environmental Assessment (EA) was required. And since the project was to exceed 600 tonnes per day, a «Comprehensive Study» under CEAA was required. A Comprehensive Study must conform to the federal Comprehensive Study List Regulations.

The CEAA process was triggered in response to the data presented in a 1996 Environmental Prospectus completed by AGRA on behalf of the proponent. Government officials met with the proponent in early 1997 to discuss, among other things, mechanisms for general public involvement in the process. One of the main concerns about the lack of public involvement in the process came from Mining Watch Canada which indicated that it was not made clear to the public that the company information sessions that were organized by the company were actually part of the CEAA process.

5.3.2 Provincial requirements

Echo Bay Mines was required to obtain a number of permits under the Ontario Water Resources Act (OWRA), the Ontario Environmental Protection Act, the Lakes and Rivers Improvement Act, and the Planning Act. Specifically, permits are required for open pit de-watering, tailings basin construction, mill wastewater treatment, site clearing, road and powerline construction, landfill development and air and noise emissions.

5.3.3 Municipal requirements

It was necessary for the Aquarius Mine plan to conform to the zoning provisions and official plan for the City of Timmins and the Township of Black River-Matheson. As it stands, the mine proposal was consistent with the official plan for the City of Timmins which includes mining development as one of the economic development activities for the region.

5.3.4 Other permits and requirements and the harmonization with the environmental law

Many other regulations, guidelines and standards also apply. The Department of Fisheries (DFO) and Oceans was the responsible agency. As the responsible agency, the DFO coordinated the harmonization of the provincial and federal requirements.

5.3.5 Scope of the environmental assessment

The EIA included all aspects of the mine operation, but its focus was on the potential impact on the

hydrological environment. The study considered very carefully the impact on surface and groundwater hydrology and the aquatic environment. The focus on the hydrological environment results from provisions in the Fisheries Act and requirements of the DFO as the Responsible Authority.

5.4 Levels of agency and public participation

In a debatable way, in America the participation of a public institution in the revision of an EIA constitutes a form of public involvement in the EIA process. The Department of Fisheries and Oceans (DFO) has a responsibility to review the EIA in a competent and thorough manner, and has a duty to ensure that the statutory requirements (both federal and provincial) are met. The responsible authority has a duty to ensure that the interests of the public are protected, and that significant environmental impacts are avoided where possible. However, checks and balances are required to ensure that the responsible government authority fulfils it's duties to the public interest.

In that respect, government participation in the EIA cannot be regarded in the same light as public participation. The public has a role in the process, which is to ensure that both the proponent and the responsible governmental authority remain accountable to the public.

5.4.1 Federal, provincial and municipal agencies

The following federal, provincial and municipal agencies were involved in the government agency component of the review of the Aquarius Mine project:

Federal agencies

- Canadian Environmental Assessment Agency (CEAA)
- Department of Fisheries and Oceans (DFO)
- Environment Canada (DOE)
- Natural Resources Canada (NR Can)

Provincial agencies

- Ontario Ministry of the Environment (MOE)
- Ontario Ministry of Natural Resources (MNR)
- Ontario Ministry of Northern Development and Mines (MNDM)
- Ontario Ministry of Transportation (MTO)

Municipal agencies

- City of Timmins
- Corporation of the Township of Black River-Matheson

5.4.2 Government documents

Under Canadian and Ontario environmental assessment laws, the proponent must prepare various official documents describing the project. These documents are made available to the public through the environmental registry and through the responsible authority. The public has a limited opportunity to comment on the documents, prior to approval by the responsible authority. Various documents were prepared by Echo Bay Mines as part of the EA requirements. These documents are relevant to this review of public participation because the documents are available to the public:

- Environmental Prospectus Focusing on Aquatic Environment Effects, Aquarius Project – AGRA, December 1996;
- Environmental Baseline Study, Aquarius Project, Timmins, Ontario – AGRA, February 1997;
- Draft and Final Comprehensive Study Environmental Assessment, Aquarius Project, Timmins, Ontario – AGRA, March 1997;
- Mine Closure Plan, Aquarius Project, Timmins, Ontario – AGRA, July 1997; and,
- Technical documents and supporting materials relating to hydrogeology, geotechnical considerations, plant engineering, freeze wall engineering, tailings dam construction, power line routing and noise mitigation.

All the above public agents reviewed and commented on the documents, especially the draft Comprehensive Study. Most of the comments received focussed on concerns about the freeze wall development and maintenance for groundwater control, the location of the tailings site, surface water quality and management, air and noise emissions, protection of nearby provincial parklands, fish habitat protection and compensation, and site reclamation [EIA p. xxiv].

5.5 Non-governmental public consultation

As mentioned above, individuals and NGOs participated at a later stage in the EIA process. The extent of their participation was largely limited to reviews and comments on the already completed draft of the comprehensive study, or letters indicating particular concerns. Dozens of letters were written by concerned citizens to the proponent or to government agency officials. The following non-governmental groups/individuals participated during the public participation phase of the EIA [see pp. 249-279, Echo Bay Mines Ltd. Environmental Impact Assessment (CEAA) Aquarius Project]:

- Local Residents
- Cottage dwellers
- Cabin owners
- Local trappers
- Bear hunters
- NGOs (Northwatch and Mining Watch Canada)
- Local Citizens' Committees
- First Nations (no responses received – see below)
- General Public (through 45 day comment period)

The nature of their participation was the following one:

- Individual letters and letters from multiple authors to company officials;
- Petition of 'community concerns';
- Letters to government officials requesting a designation under the Ontario Environmental Assessment Act;
- One on one negotiation with company regarding compensation for impacts on individual property ;
- Attendance and audience participation at three company open house sessions;
- Initiation of Ontario Municipal Board (OMB) hearings.

5.5.1 Local residents and land users

As mentioned, the case of the Aquarius Mine is unique in some respects, because local residents live in areas all around the proposed mine site. Many of the mining developments in Canada are in rural areas or wilderness areas where there are very few local residents; in some cases, the mining company must construct entire communities near the proposed site to service the mine.

Due to the demographic density of the area, the level of participation was high. In spite of this, Mining Watch Canada noted their concern that local residents were not adequately informed that the public information sessions held by the company were actually part of the federally mandated CEAA process [Mining Watch Canada, Federal and Provincial Review of the CSR, Dec, 1999].

In the final version of Comprehensive Study, Echo Bay maintains that local residents and land users were invited to participate in a number of events:

- Pre-draft CS-EA open house presentations in Timmins (February 13, 1997);
- Post-draft CS-EA open house session in Timmins (May 8, 1997) and Connaught (May 9, 1997);
- The draft CS-EA and the Environmental Baseline Study were «made available at three public locations» prior to the open house sessions;
- Additional meetings were held on Feb 12, June 3, June 25, August 14 and August 22 to review specific concerns with local residents and land users. According to Echo Bay Mines, specific concerns were reviewed at these meetings.
- Written responses were provided to residents and land users who had contacted the proponent in writing with specific concerns.

The proponent indicated that the company purchased selected properties after discussions were initiated by concerned residents. In some cases, compensation arrangements were made where it was clear that local resident's interests would be affected. While these discussions are indeed an important part of ensuring that the public is not adversely impacted by the mining project, such concerns ought not to be the focus of the public participation phase of the EIA process.

5.5.2 Previous notification

In their comprehensive report, Echo Bay Mines makes the following statement with respect to public participation:

«Echo Bay is of the opinion that the legitimate concerns of local residents and land users have been suitably addressed through the CEAA process, and through related permits issued by MNR, and that Project operation will conform with all applicable government regulatory requirements.»

However, Mining Watch Canada argued that the public was not adequately informed about the project because the name and district of the mine were posted incorrectly on the CEAA website [see Mining Watch Canada, Federal and Provincial Review of the CSR, Dec, 1999]. Moreover, they argued that:

«Although there were three open houses a few years ago, the local people were not aware that they were consultations as part of the CEAA process, and most of the community thought it was a community relations exercise by the company. As a result, few attended, although there is considerable concern in the local community and from environmental organizations across the province and the country. There are ten residences within 1 km of the proposed operation, who will be considerably affected by it.»

Residents of the township of Black River Matheson «were concerned that not enough of the residents from the area had known about the open house.» Discussions were had with officials at Echo Bay Mines about the inadequacies in the approach taken to notifying the public about the proposed project.

A total of 146 people attended the open house sessions held on Feb 13, 1997 in Timmins. And 91 people attended a similar open house on May 8 and 9. Some local residents were concerned that they were not properly informed about these sessions, i.e. that there was inadequate notice of the open house events. Echo Bay mines claims that most of the comments received at the open house events were supportive of the project, and focussed mainly on technical aspects of the project.

Mining Watch's concerns are essentially with respect to adequate notice. The public participation phase can only be effective if the public is given adequate notice that the consultations are taking place. It is not reasonable to believe that the public will be aware of what are the legal requirements for public participation in the EIA process. For that reason alone, the involvement of environmental NGOs in the process is very important. NGOs such as Northwatch and Mining Watch can assist the public in intervening in an effective and informed manner. Northwatch was also concerned that the company misrepresented the level of public concern about the project in the company's final comprehensive report [see Northwatch Comments on the Aquarius Mine CSR, May 2000, p. 1].

The concerns raised by Northwatch and Mining Watch suggest that improving the legal requirements and methods for notice is one way to improve the credibility and usefulness of the public participation phase of the EIA. Legislation or policies ought to address the following concerns: how do the company and the government agencies ensure that all stakeholders, local residents, and people concerned are made aware of the project in a timely and adequate way? How thorough must the notices be if effective public participation is sought? What are the different methods available of informing the public about the project? What are the most effective means in the different social economic context of a mining exploitation? How do the different methods of informing the public impact on the effectiveness of the public participation process?

5.5.5 Very limited first nations participation

First Nations involvement in the public participation phase was negligible, even though the project lies within the traditional territory of the Matachewan First Nation. One of the main flaws in the study is that only the Wabun Tribal Council was consulted, and not First Nations. The proponent stated that no concerns

were raised by the Tribal Council; however, the Tribal Councils are not always recognized by First Nations as legitimate representatives of First Nation interests. The Tribal Councils were established by the Federal Government, and they do not necessarily enjoy the support of First Nations communities.

In their comments on the Aquarius Mine CSR, Northwatch argued that the company:

.....appears to misrepresent the level of dialogue and consultation which has been undertaken with First Nations. They report to have consulted with Wabun Tribal Council, whom they deem to be the representative body. However, members of the Matchewan First Nation continue to live on Nighthawk Lake and use the area, including the area that may be affected by the mine's operations; and the Wabun Tribal Council reports no direct contact between that organization and Echo Bay Mines Ltd. or their agents.» [see Northwatch Comments on the Aquarius Mine CSR, May 2000, p. 5].

The complete absence of First Nation participation in the EIA process is noteworthy. One of the most obvious deficiencies in the public participation process is that the First Nations in the area were not contacted directly by the company. This problem leads to various questions related to the scope of public participation.

Grand Chief Charles Fox of the Nishnabe Aski Nation (the regional First Nation representative body that is independent of the Tribal Councils) was informed of the project on April 23, 1997. The documentary record indicates that no formal response was received by the company. While the Grand Chief was informed about the project, the individual First Nations in the region were not informed. Why did this happen? Why didn't the company or the agencies inform the individual First Nations communities? Why were broad public notices disseminated in Timmins, and not in the First Nations communities in the area? This raises the issue of whether the Federal government has a policy about what level of First Nations government must be informed as part of statutory requirements of the EIA?

5.5.6 Local citizens committees

In the mid-1990s, the Ontario Ministry of Natural Resources established a large number of 'Local Citizens Committees' as part of its Lands for Life Regional planning initiative. The purpose of these committees was to provide input from a diverse group of public interests into the planning process. As the Ministry itself established the committees, these did not emerge from any independent citizen action. While the committees represent a fairly broad spectrum of interests, they are not representative in any real democratic sense—they are not directly accountable to the people whom they purport to represent. While it is true that Local Citizens Committees were consulted by the company, the political independence of these committees is disputed, and so, the value of this level of public consultation is not clear.

Echo Bay claims that the Local Citizens Committee provides representation from several local interest groups, including: tourist outfitters; campers; forestry operators; First Nations; the Mattagami Region Conservation Authority; naturalists; trappers; anglers and hunters; cottage owners; mining industry operators; and the general public. They argue that by consulting with the citizens committee, they were partly discharging their obligation to consult with the public. However, the independence of the local committees is questionable.

Echo Bay claims that the LCC was generally supportive of the project, but expressed concerns about the location of the tailings pit, declaring that it would preferable that an emplacement take place on higher ground. However, in the end they accepted the know-how and competence from the responsible authority (in this case, the Federal Department of Fisheries and Oceans).

Public consultation is not credible unless the bodies which are consulted are independent from both the proponent and the government. Arguably, the LCC is not an independent representative body; in fact, one could argue that the LCC is really a partisan vehicle for the Provincial government. It is essential for the credibility of the public participation phase of the EIA that any body that purports to represent public interest be accountable in some way to its constituency.

The LCCs are established by the Ministry of Natural Resources under the Ontario Crown Forests Sustainability Act. It is important to consider what interests the LCCs represent and whether or not the committees are truly representative of public opinion. Since the committees are established by the Ministry of Natural Resources, one might view them as quasi-governmental bodies. If the LCCs are not

independent from the government, then their participation in the public participation phase of the EIA is potentially misleading.

5.6 Review of the integral study on the part of the citizenship

A 45 day period for public comment is required under Subsection 22(2) of the Canadian Environmental Assessment Act (CEAA) for all projects that require a comprehensive study.

A comprehensive study was required for the Aquarius Mine. Under CEAA, the responsible authority (in this case, the Federal Department of Fisheries and Oceans) must notify the public through the public registry about when and how copies of the comprehensive study may be obtained. The CEAA requires that the responsible authority consider public comments in reaching a decision about whether a project may proceed or not, or whether the proposal must be referred to the next level of environmental assessment, which is the Panel Review. [For more information on the statutory framework for environmental assessment in Canada, see the report on Public Participation and Mining in Canada]

A number of comments from the public and from environmental NGOs were received through the 45 day public review. Extensive written comments were received by two environmental NGOs: Northwatch and Mining Watch Canada. Both of these NGOs have offices located in Northern Ontario, and they regularly review EIAs for mining projects across Canada. Only three individuals provided comments during the 45 day review and the DFO argued that their comments did not raise any new issues. All together, the public comments addressed two distinct issues: the process of the public participation phase (implementation) and concerns about the project itself. [See: Federal, Provincial & Public Review of the Aquarius Comprehensive Study Report (Dec. 1999), p. 1-6.]

5.6.1 Summary of process related concerns

- *Access to information.* The environmental NGO Northwatch was critical about the about untimely response to requests for information.
- *Technical flaws with the Environmental Assessment Index.* Critical comments were received stating that project documents were not easily located on the internet registry because the mining project was listed under 'inland waters' (this applied because the federal government determined that the project would 'result in a harmful alteration, disruption or destruction of fish habitat). Since the review, the Department of Fisheries and Oceans has included multiple descriptors for searches on 'project type'. If the public is to have meaningful access to information, then government information resources must be properly maintained.
- *Cumulative effects.* Environmental NGO Northwatch argued that the cumulative effects of mining effluent not adequately addresses in the comprehensive study. However, the DFO stated that they believed such concerns had been adequately addressed (as in the summary)
- *Communications with First Nations.* Environmental NGO Northwatch formally criticized the review on the basis that First Nations were not properly consulted. Under CEAA, the DFO is responsible to determine whether or not a project will impact on First Nations' traditional lands. Only the local tribal council and the Grand Chief of the Nishnabe Aski Nation were notified as part of the EIA. Individual First Nations were not notified. No comments were received from the Tribal Council or the Grand Chief. Northwatch argued that First Nations did not receive adequate notice regarding the proposal. However, the DFO argues that it was determined that there would be 'no foreseeable impacts' on First Nations traditional territory, and that, nevertheless, First Nations were notified of the project. The DFO also argued that the Wabun Tribal Council represented the interests of the Matachawan, New Post, Wahgoshig and Mattagami First Nations; however, many First Nations do not regard the Tribal Councils as having legitimate authority to act in their interests. Thus, the concerns raised by Northwatch relate to the political relationships between First Nations and the Federal and Provincial Governments. This criticism highlights one of the political issues that remains unsettled with respect to First Nation involvement in the EIA process: i.e. to whom must the proponent provide notice in order to discharge their responsibility under the public participation provisions of CEAA.

5.6.2 Summary of project related concerns

1. *Freeze wall Failure.* Of all the environmental concerns raised by the public, concerns about the proposed freeze wall dominated discussions at all levels of the EIA. Specifically, concerns were raised during the 45 day comment period regarding the following issues:

- the lack of prior experience with successful freeze wall technology;
- the accidental or planned release of brine from the freeze units;
- the effect of hydrostatic head on the outside of the freeze wall;
- discharge of cooling water;
- limited independent review of the feasibility of the proposed freeze wall.

The DFO's response to these concerns was that they had all been adequately addressed in the comprehensive study report. The DFO also defended their use of the very limited independent review of the freeze wall proposal by the Queen's University Mining Department.

2. *Tailings Management (location of tailings site).* A great deal of public concern also focussed on the tailings management. Concerns were raised about the following issues:

- The selection of the tailings site;
- The acid generating potential of the tailings;
- Alternatives to on-site processing;
- Unresolved land user issues.

Again, the DFO responded to these concerns by stating that they were satisfied with the level of detail provided by the proponent with respect to these issues.

5.7 Role of local knowledge, and use of local knowledge within EIA

A large number of local residents and land users contributed to the EIA through written comments and other means. Many of these residents had in depth knowledge of the local environmental and ecological conditions. Local residents with knowledge of the area increased the level of sophistication of the questions and concerns put before the proponent and government agencies. Many questions about local impacts were driven by specific local knowledge of residents. Many of the local residents who participated in the EIA process are actively involved in natural resource management (of timber, water resources, fishing, fur-bearing animals, nature tourism, bear management, hunting, and other recreational activities) in the area.

However, despite the large number of local residents and land users, the proponent did not make use of local knowledge during the initial planning stages, or in the preparation of the draft CSR prepared by the proponent. Local residents and land users were merely consulted at community meetings after the project plan had already been drafted. It is arguable that the environmental planning of the project would have benefited from earlier consultation with the public. If consultation had taken place earlier in the process, the concerns could have been incorporated driven by local natural resources management knowledge.

The importance of local knowledge in the effectiveness of the public participation phase points out a series of questions related to public participation in mining. How will an absence of local residents with local environmental knowledge affect the adequacy or usefulness of the public participation in regions where there are very few local residents? How will the public participation process differ where residents do not have past experience with the mining industry? To what extent does the success or usefulness of the public participation process of the EIA depend on the prior experience or knowledge that the public possesses?

Thus, in areas where the local community is less knowledgeable about the mining sector, the check and balance function of the public participation phase of the EIA may not be adequately fulfilled. This potential failure in the public participation phase must be addressed by legislation that requires the input of third party (i.e. independent) consultants from other parts of the country (e.g. NGOs or specialists). Without third party involvement in the review of the EIA, one of the goals of the public participation phase is completely lost: accountability.

5.8 Public Participation in a Mining Region

Mining is one of the primary sectors of the Timmins area economy. The long history of mining in the region and the familiarity of local residents with the mining sector influenced the public participation process in a number of ways.

Local residents or land users in the Aquarius Mine area are generally quite knowledgeable about the mining industry and of the potential environmental, social, and economic impacts of mining. Some citizens who made written comments to the proponent and to agency officials demonstrated a very sophisticated understanding of the environmental planning process, the potential environmental impacts, and the EIA process. A number of local residents were knowledgeable about the kind of impacts that must be anticipated, and were aware of a wide range of potential concerns, such as noise, dust, impacts on groundwater, traffic, etc.. Many of the local residents and land users have seen mines developed in other parts of the region and they know what to expect from new mining developments. Their level of participation will depend, in part, on the past success or failure of mining projects in mitigating environmental damage.

Many of the local residents or land users may also have participated in previous EIA processes. If members of the public have had previous involvement in the EIA process, they will be much better equipped to address any potential shortcomings in the environmental management plan. The breadth of concerns from local residents and land users indicates considerable forethought by members of the public of the likely impacts on their community of having a mining operation in the area. Needless to say that if environmental impacts in are large area are foreseen, the scope of public participation should be greater.

5.9 Actual Influence on Decision Making/Planning Process

Despite extensive public participation/input in the EIA from members of the public and NGOs, no significant changes were made to the overall environmental management plan for the Aquarius Mine. Individual concerns with respect to property encroachments were addressed on an ad hoc basis with individual residents and land owners. Individual land owners who had concerns about the impact of the mining project on their property did not receive assistance or mediation from an independent board with respect to their claims. Thus, the success of negotiated settlements between the proponent and individual property owners depended on whatever resources the individuals were able to obtain. No standardized or previously agreed upon process was put in place for adjudicating claims between property owners, land users and the proponent.

5.10 Range of Community Concerns

A review of the documentary record of the public participation process indicates the following range of community concerns that were raised with respect to the Aquarius Mine development.

Process-related concerns:

- Timing of public consultation
- Inadequacy of information, responses to concerns
- Inadequate public notice
- Inadequate consultation with First Nations
- Time pressure exerted in negotiations over compensation

Environmental/Social/Economic –related concerns

- Noise
- Dust
- Smell
- Adverse impact on property values
- Loss of income from trapping, fishing, outfitters
- Impact on groundwater
- Impact on surface water
- Impact on bear management area
- Traffic safety

- Aesthetics (height of overburden storage and sight lines from highway, Night Hawk Lake)
- Contingency plan for freeze wall failure
- Geotechnical stability (slumping of overburden storage into Night Hawk Lake)
- Location/permit for on-site waste dump
- Tailings Dam Failure
- Location of Tailings Pit (destruction of spring-fed stream)
- Location of access road
- Financial assurances against damages to adjacent properties
- Insurance
- Use of local labour
- Financial assurances to cover mine closure
- Support for community projects
- Potential power-line health effects, due to low voltage emissions
- Impact on wildlife habitat, including brook trout habitat
- Potential flooding
- Social/economic benefits not outweighing environmental costs
- Potential effects of cyanide on human health and aquatic life
- Feasibility of pit lake after closure
- Access to lands for hunting/restrictions on hunting
- Public use of mine access road

6. Further research

Some additional questions were outlined during the preparation of this study. How does the public participation process that was undertaken by Echo Bay relate to the overall EIA process in Canada and the effectiveness of the process, as required by legislation? How does it compare to other mining projects, other public participation processes that were undertaken by different companies, in different sectors (forestry, energy, exploitation, etc.)? An analysis of these and other questions can help to evaluate the global efficiency of the global environmental impact assessment regime on the American continent.

II. CHILE: MINERA ESCONDIDA Y MINERA LOS PELAMBRES

II.a. MINERA ESCONDIDA

1. General information

1.1 Introduction

The study of Minera Escondida Limitadas is of interest because it is the biggest copper mine in the world and because it has been evolving in its development of communication, integration and citizen participation strategies. It is important to consider that this project started activities before the obligatory environmental impact assessment system (SEIA) was approved in Chile, submitting the project instead to a voluntary environmental assessment. The new phases and expansion or additions to the mining operation projects did comply with the SEIA, effective in Chile since 1997.

This mining project is characterized by distinct operations that will take place in different areas, with specific events and interactions depending on the nature of activities. This allows lessons to be learned regarding the citizen participation strategy used by the company and the response of the citizens.

The extractive activity and processing of the minerals is done in the desert, far from populated areas. Thus, the impacts are basically on the desert environment, water resources and fauna. On the other hand, the port for loading minerals is located on the Pacific Coast, close to the Coloso cove, 15 km south of the city of Antofagasta. In this area, artisanal fishermen exist as well as a spa.

1.2 Location

The main facilities of Minera Escondida Limited are located in the Atacama Desert, 170 km southeast of the city of Antofagasta, 3,100 meters above sea level at a latitude of 24°15'30" south and a longitude of 69°4'15" west.

1.3 Description

The mining facilities consist of an open pit mine, a concentration plant, an oxidation plant to produce cathodes and mine duct to transport the copper concentrates from the mine itself to the Coloso port located 15 km south of the city of Antofagasta. Facilities for filtering and storing concentrates and the port to load the minerals are also located here.

1.4 Operational circuits of the mine

The mine under analysis consists of different projects that have been developing successively since 1998. At present, they form a comprehensive mining operation.

This case study will describe the development of the projects related to citizen participation, with a view of determining relevant aspects that allow us to understand the position of the company and the formal and informal participation mechanisms implemented. With this purpose, the chronological development and the actions undertaken are described, specifically in regards to the following identified projects:

- Escondida Project (Base), 1988 - 1990.
- Cathodes Project 1992.
- Oxides Project, 1997.
- Phase IV Project, 1999.
- North Escondida Project, 2000 - 2001.

At the end of 1999 the probable and proven sulfide reserves reached 1.96 billion tons, with an average grade of 1.2% copper and a cut of grade of 0.7%. Besides sulfides, the Escondida field has large oxide reserves. The main area of oxide minerals bordering the sulfide pit has been extensively drilled. The

company estimates that the probable and proven oxide reserves amount to 296 million tons, with an average grade of 0.7% soluble copper in acid. The copper mineralization of the Escondida field extends approximately 1.6 by 4 km with an area rich in mineral of a high grade and an approximate thickness of 400 m. This area is covered with a sterile leaching wrap of between 100 and 300 m in thickness.

1.5 History of the mine

Escondida is one of the biggest mine operations in the world in terms of production. Since it began in 1990, the nominal capacity of production has expanded from 320,000 tons a year to 925,000 tons a year of fine copper contained in concentrates and cathodes.

The production of Escondida represents 8% of mine copper globally. It is the largest copper mine operation in Chile, producing 20% of the total of copper produced in Chile. Its production of copper concentrate represents 26% of the total commercialized internationally.

The life span of a mining project is approximately 50 years depending, to a great extent, on the technological progress introduced to utilize minerals of a lesser grade.

Currently, the ownership of Minera Escondida Limitada is distributed as follows: BHP Billiton, from Australia (57.5%); Río Tinto Plc. (30%); JECO Corporation, a Japanese consortium lead by Mitsubishi Corporación (10%); and International Finance Corporation, an affiliate of the World Bank (2.5%).

2. Experiences with citizen participation

2.1 Mandatory process of citizen participation

Five different areas of citizen participation are clearly identified in this project.

2.1.1 (Base) Escondida Project 1988-1990

This project corresponds to the initial mine operation. It was developed in 1998 and includes mining extraction work in the deposits and building of a shipping port at Coloso, near the city of Antofagasta.

When this project started, a mandatory environmental impact assessment system did not exist in Chile. Nevertheless, the company, following international directives, made an effort to find opportunities that would allow the project to be known.

An administrative resolution that obliged them to comply with certain requirements to carry out the activity was applied only in regards to the building of the port and, specifically, the emptying of wastewater into the sea from the plant located in that area. In this context, the company ordered an environmental impact study to be carried out by an international consulting company, which appears to be one of the first studies of the kind in the country.

The initial study requested by the authority in charge of controlling coastal pollution (Directemar) and limited to the location of the operations and discharge of wastewater into the sea was presented to scientists, local universities, and the scientific community through workshops held in Valparaiso and during the so called «Sessions of the Sea» meetings in Antofagasta. It was also shown voluntarily to the Mayor and Counselors of Antofagasta.

In general, there was limited participation by the community; what did happen was an informal participation through the media, where citizens made public their concerns regarding the discharge of wastewaters along the coast of the bay, at the marine emission point (Coloso).

At the same time, the concerns of the community – especially with regard to operations developed at the shipping port, the mine duct and the discharge of wastewater into the sea— were not considered by the authority or the company. Neither a formal nor informal participation mechanism existed. The site where the port was installed had been previously offered by authorities to the fishermen's authorities and the community of Coloso, to improve fishing infrastructure. Environmentally, when the port was set up the accumulation of minerals, without any prevention measures, seriously affected the community.

It is important to mention that at this moment the company tended to provide the community with information on the project. But the community did not display a receptive attitude. As will be analyzed below, this situation influenced a change of strategy, which took place after and allowed communities concerns to be heard, creating a better understanding. The company has recognized this initial problem.

2.1.2. Cathodes Project, 1992

This project was developed at the Port of Coloso in January 1995. The objective was to process part of the copper concentrate by means of ammonia leaching. When the project began, a mandatory regulated system for environmental impact assessment was still not in place. Even so, the company voluntarily presented a voluntary environmental impact study to the environmental authority of the region.

This project generated a major reaction from the local community, including universities, different NGOs (among those CODEFF), and fishermen.

The company created a communication strategy recognizing that the project had impacts. In three months, the various actors in Antofagasta were informed and the community changed their views regarding the project. In this case, the company opened up to the community by means of a communication campaign.

According to their representatives, after the project was approved, the company understood that it was not enough to make the project known, but that there was also the need to listen and gather communities concerns.

Due to certain problems in the operations that could not be solved, the plant stopped operating. This was officially communicated to the authorities and the community through the press.

2.1.3 Oxides Project, 1997

This was a project located near the mining deposit inside the region that consisted of oxide mineral leaching operations and increased the capacity to treat sulfured minerals. When the project was approved by the environmental authority, the mandatory system of environmental impact assessment had just been established in Chile.

In what one could call an informal participation, the company developed an intense dissemination activity and organized a cycle of presentations directed at different strategic actors of the region, especially at the communities of Antofagasta, the Coloso cove and Peine. This cycle included close to 25 meetings with the community, with about 700 participants. The key actors considered the following aspects:

- Regional, communal and parliamentary authorities.
- Private sector (local industry, local chambers of commerce and tourist boards, construction chamber and businessmen of the region).
- Public sector (public services that deal with natural resources matters).
- Education sector (universities, institutes, and secondary and primary schools).
- Regional community sector (neighborhood groups, social and volunteer organizations, fishermen's associations and local communities).
- Media.

With regards to formal participation, the situation contrasts with the former. Although all levels of citizen participation were complied with, the community showed practically no interest in participating. Maybe this was due to the remoteness of the location of the project (more than 170 km from Antofagasta). As will be seen below, with regards to a complementary project, this behaviour by the community is repeated.

2.1.4 Phase IV Project, 1999

This complementary project also takes place at the mining deposit, has an influence on other operational areas and consists of an increase in the total production, increasing the capacity to process minerals by 85%. It includes a new mineral concentrating plant, a new mine duct, a new tailings dam between the mine and the shipping port (Coloso), modifications to the port facilities, and an increase in the filtering capacity and storage of the mineral concentrates in the port. So far, operations in this project have not started.

The project was submitted to the environmental impact assessment system. An environmental impact study was presented, supplemented later by an environmental impact declaration.

In regards to informal participation, the company continued with its policy to disseminate the project to the community.

In terms of formal participation, by consulting the people (in accordance with the regulation), a similar situation occurred as in the prior project; participation was limited, also due to people considering the operations of the project far from local reality.

2.1.5 Escondida Norte Project, 2000–2001

This project, which is in the process of an environmental assessment, is located inside the region and consists of making a new pit to develop minerals situated north of the present deposit. When this extraction begins, the supply for the two concentration and oxide plants will come from both pits.

Before undertaking the environmental impact study, the company promoted and organized an activity called «Early citizen participation – Escondida Norte Project». Different sectors of the community participated, including environmental organizations, universities and public entities with expertise over natural resources.

The concerns presented at the workshop were included in the environmental impact study that was presented for the evaluation of the project.

In the formal evaluation stage, the environmental authority responsible for overseeing the citizen participation process, convened and organized a meeting to compile all observations of the community within the time limits provided for this process in legislation. On this occasion, the public had an opportunity for more formal participation, although a good portion of their concerns were centered on the operational aspects of Escondida, which were not part of the project under evaluation.

2.2 Rules on citizen participation

Regarding formal citizen participation, it must be remembered that at the start of the mining project under consideration, there was no mandatory system of environmental impact assessment for citizen participation. Therefore everything that was done regarding the main location of the project was done outside of the formal participation process. Later on, as the remaining stages of the project were developing, the company considered formal strategies of participation, in accordance with the new legislation on environmental impact assessment.

Informal citizen participation, which includes all participation activities outside official frameworks, has implied that, as successive projects are being implemented, the company has developed a communication strategy. The policy of the company seems to be that of communicating all plans and improvement projects of the operation.

The company's strategy for citizen participation is based on a company policy that derives from the company's general programs and is found in a declaration or general code of conduct. This offers a theoretical framework which must be implemented at the management level.

This strategy is under the responsibility of the environmental management office of the company, in coordination with the office of external matters. The participation modality that Escondida carries out is the product of a policy that, from its highest level, supports and demands its implementation; it is developed and implemented by the environmental management office through the environmental manager who is responsible.

There is no basic instruction from the company on how to develop the participation mechanisms. A methodology has been developed that has been evolving from the beginning of the operations and has responded to the company's experience with the public with regard to the different projects. A «typical recipe» for citizen participation does not exist, and there is no written procedure in this regard, but what does exist within the company is an internal and external communications procedure with the community in the way of a guide. There is also a spokesperson for issues related to the community that is the responsibility of the manager of corporate matters.

In practice, from the start of the mining operations, particularly on the coast, communities concerns were taken into account because of the express support the environmental executives received from the presidency of the company. Later on, other policies were implemented.

On environmental issues, the company provided an environmental spokesperson to relate to citizens. This spokesperson reports to the environmental manager, who reports in turn to the president.

2.3 Citizen participation voluntary process

2.3.1 Company's initiatives

From the start of the mining operations and as the additional projects were being developed, the company tried to find points of entry with the community to provide information on the project and create a relationship of mutual collaboration.

To understand how the relationship between the company and the community has evolved, one can say that, at the beginning, the company had a strategy of information focused primarily on technical aspects that were not understood by the community (only by scientists and the authorities). Later, this strategy was modified to respond to the communities concerns. The company then began to provide information in a more adequate manner and language for different levels of the community.

Consequently, it could be said that at present time, due to the language and content, the communication strategy is good.

From the background of the case under study, there seems to be a special concern on the part of the company to comply with all agreed upon commitments with the community and the authority, in both informal and obligatory aspects.

2.3.2 The population

In a global and chronological analysis, the company identified and established a relationship with the main actors to obtain citizen participation, (formally and informally) distinguishing among the following actors who represent a wide sector of the community.

- The community of the region where the mining operations are located.
- The formal organizations that exist in the region: Sindicato de Pescadores de Puerto Coloso; the Junta de Vecinos de Coloso (grouped in the Junta de Adelanto de Coloso); the environmental NGO groups (CODEFF II Región before its dissolution, CIPMA and Casa de la Paz, among others); and regional and national university centers.
- The regional environmental authorities and public service authorities in general.

Additionally, the company provided a list of people and institutions that are also key actors at the regional and national levels, and invited them to participate in the various informal participation mechanisms it carried out.

Throughout time, the company seems to have achieved a level of adequate confidence regarding the citizen participation process. This is due to a change in their communication strategy and their policy to listen to the community's concerns. With regards to the community, they seem to have perceived that mechanisms exist to achieve serious and responsible interaction in which their concerns may be taken into account. All of this has diminished the possibility of conflicts from the development of mining operations.

2.3.3 Other actors

Citizen participation mechanisms developed by the company, outside the ambit provided for by environmental legislation and within the environmental impact assessment, have been diverse. The following can be pointed out:

- Meetings, panels, seminars and round tables with the different actors, from the most technical and professional to the most diverse community organizations, through which technical information on the projects is disseminated.
- Press campaigns using audiovisual, written and electronic means of communication, such as video,

notebooks, triptychs, scientific publications and monographs, surveys, CD ROM, DVD, etc. All this information is distributed to the community in the events or sent by mail. The company uses these mechanisms to show their open attitude towards the community.

- Monthly dissemination of the main activities carried out by the company related to the productive, environmental and community matters, through the publication, *Breves de Escondida*. This publication has been out for seven years and is distributed to more than 1,000 opinion leaders and representatives of the regional and national communities.
- The company has maintained a direct means of communication with middle school students of the area through activities, which allow them to visit the mine and other facilities. This has been going on for various years through a program of invitations to different schools. At present, visits can be made through a written request from schools. Visits to the Escondida Mine from university students and other different organizations of the community are constantly being organized.
- Support for scientific research, particularly research on the ecosystems of the region where the company's operations will be carried out. It is worth mentioning the various agreements with authorities and with different organizations (CONAF, SAG, and universities, NGOs) that carry out natural resource conservation activities, especially those that influence areas of the company's operations .
- Creation and support to the *Fundación Minera Escondida* which is an institution with an independent legal entity, that is directly linked to the community with the purpose of contributing to its development as an expression of social responsibility by the company. Its work is centered in the educational, health and social development areas, with an emphasis on the youth of the local community. This is undertaken as part of what the company has called social sustainability in the mining activity.

This participation strategy contrasts with the weak and discontinuous participation of the Antofagasta region, which seems to be mainly due to the inexistence of organized NGOs in the region. CODEFF Filial II Región was the organization that had an important role during the first years that the company arrived; however, this regional affiliate of CODEFF was dissolved in 1997.

The most relevant actors at a regional level up to now have been the organized communities of the Coloso cove, the fishermen and neighbors, grouped into committees. The company has been contributing with these committees, about US\$50,000 a year to aid in the development and cultural works of that community.

As pointed out previously, and as part of the evolution of the participation strategy, the multiple mechanisms used have been effective and adequate for the objectives of the citizen participation process. The company recognized the initial deficiencies and adapted to the requirements of the different communities involved in an area with a mining tradition but with a certain historic and social-cultural apprehension towards mining.

3. Conclusions

In the informal participation activities organized by the company, a constant feature is repeated: the permanent and systematic concern of the company to make their operations and impacts known, and to support social-cultural development of the local community through extension and assistance activities.

With regard specifically to participation in the environmental impact assessment system, a clear evolution in the attitude of the company is noticeable. It has gone from only providing information on a project to considering the concerns of the local community about the risks of the mining activity on health and environmental matters.

In the course of time, the company has increased informal participation mechanisms of regional and national communities, giving them more relevance and putting them in practice, which provides a pioneering and infrequent effort in Chile in the sphere of mining operations. Additionally, the company has submitted to the ISO 14001 certification system. It is expected that in 2002, the mine will be totally certified.

The ISO 14001 certification is an external audited process that requires companies to develop good practices. It is an important mechanism from the perspective of the relations of the companies with the community and citizen participation. In the case of *Minera Escondida* specifically, it is a managerial policy decision that positively impacts participation, because, through this mechanism, the company must comply criteria for transparency and relations with the community.

II.b. MINERA LOS PELAMBRES

1. General information

1.1 Introduction

The case study of Minera Los Pelambres is interesting for the issue of citizen participation in the environmental impact assessment system, since it is related to a mining project located in an area where different interests converge: mining, agricultural, environmental, commercial, tourism and maritime. Also, from this case experiences applicable to other mining projects may be extracted because it involves very dynamic citizen participation strategies. One can also assess the efficiency or inefficiency of the participation mechanisms applied and extract important lessons from it.

To develop this report, the author traveled to the region where the project is located and proceeded to personally review all the background administrative records to process the environmental impact study of this project; interview the employees of the environmental entity in charge of the assessment and process of the project; and contact key actors. Inexplicably, the Compañía Minera Los Pelambres did not agree to participate in the report.

1.2 Location and geographical description of the mine

The mining project Los Pelambres is based on a mining deposit, a beneficiation plant for minerals, a mine duct and a maritime port to ship the mineral concentrates.

The mining deposit is in the commune of Salamanca, province of Choapa, Región IV, in a mountain range sector located in the headwaters of the Los Pelambres River, 3,100 m above sea level. The beneficiation plant is also located in the same sector, 1,600 m above sea level, in an area where the Los Pelambres and Piuquenes Rivers converge. The maritime port for shipping the minerals is located on the marine coast of the IV Región, in the commune Los Vilos, more or less 3 km north of the city. The beneficiation plant is connected with the port by a pipe (mine duct) of about 120 km long that crosses the rural areas in a nearly straight line towards the coast.

1.3 Mine operation circuits

The mining operation of the project consists of the extraction of an open pit that includes moderate copper grades, with important aggregates of molybdenum and lesser quantities of gold and silver.

The relation of sterile to mineral is presented in this study in terms of 0.5, with an approximate movement of 454 million tons of sterile destined to deposits. The mineral obtained from the deposit is transported to the beneficiation plant, where the mineral is subjected to a flotation concentration process that generates a tailings waste, which is then taken to a retention tank through efficient technical mechanisms to the deposits where they will be contained indefinitely.

The rest of the mineral concentrate will transform into liquid pulp and taken through the 120 km mine duct to the mineral shipping port located on the region's coast in Los Vilos. The facilities in this port are used to extract the liquid from the pulp and transform the mineral into a nearly dry concentrate, which through gravitational mechanisms, is deposited and stored in a specially designed warehouse where it will be loaded onto the ships on belts, using methods to avoid losing the mineral as a result of the wind and other external factors. The water extracted from the concentrate is used to irrigate a tree plantation that borders the area of the port.

1.4 History of the mine

Bearing in mind that the deposit was subject to underground extraction for five years, with a beneficiation plant that produced about 5,300 tons of mineral a day, the project was named «Proyecto de Expansión Minera Los Pelambres 85,000 tpd» as a reference to a new processing capacity.

As the distinct phases of the mining operation are carried out in different areas, including: mountain ranges, areas where rivers converge, valleys and gorges, irrigation canals, agricultural production in the interior areas, fishing and tourism on the Los Vilos coast, this project is extraordinarily dynamic with respect to citizen participation. Precisely, this feature was what resulted in this report being selected. That is to say, it was not the scope of the project (which results to be medium in comparison with other similar ones in the country), but the features of its location and its dynamism that resulted in its being chosen.

2. Experiences with citizen participation

2.1 Citizen participation as a mandatory process

In the project, three areas of citizen participation are clearly identified.

2.1.1 The Salamanca commune

In this territory the mining deposit and beneficiation plant are located. Mineral wastes are deposited there. In this commune the following key actors are identified:

- The Asociación de Regantes del Río Choapa (monitoring council of the river and its affluents).
- The neighbor meetings and the residents of the valley and areas involved (like Cuncumen and Chillepín).
- The merchants of Salamanca.
- The Municipality of Salamanca.

As part of the citizen participation activities developed in Salamanca, meetings were organized with the involved communities, the mining company, the municipality and the authority of the Comisión Regional del Medio Ambiente. In these meetings, the public authority would encourage participants to make consultations, which were compiled and later incorporated into the assessment of the project, obliging the owner to include them in the respective procedure and later reports. The company understood that this process was necessary.

An important background event, that would later allow certain interesting conclusions to be established, is that the community of this area did not seem to understand, in its real dimension, the mining operation that was being proposed in the environmental impact study, that is, a very important mining project. People were thinking of the small mining operations that they were used to seeing in the area and not such a big project. This point will be very important to later assess the information provided to the community. From the start of the operations and seven years before the project was expanded, the owner company of the project maintained good relations with the community. This cordial link could have been due to a willingness to collaborate or to a particular interest, as mentioned expressly by the actors themselves.

In this same context, the company seems to have achieved good relations with the governing body of the Asociación de Regantes de la Comuna de Salamanca, but not necessarily with their ground base.

The merchants of Salamanca decidedly supported the mining project, due to the economic advantages that it could provide them; they even at one point adopted an attitude of mistrust with the environmental authority, because they thought it might hinder the quick and normal establishment of the mining project in the area.

2.1.2 The Illapel commune

This area is involved in the project because of the mine duct going through its territory and because access to and transport of construction material for the development of the project takes place here.

This city clearly has a commercial interest in the installation of the project, because of the services and businesses it could represent and the possibility to enhance internal trade.

In the case of Illapel, citizen participation was oriented more objectively; there were basically observations and doubts related to the communication routes, transport, emergencies and accidents, and the mine duct and its filtrations and risks. The issue of right-of-ways related to transportation was also important.

2.1.3 The commune of The Vilos

In this area the key actors were the Municipality of Los Vilos on one side, and two fishing inlets on the other, each with different visions and interests with respect to the project, including technical advisors who would contradict themselves.

Meetings with the community were organized in Los Vilos. They convened three times with different key actors, mainly the people dedicated to fishing. The group of fishermen had an important influence in the location and final orientation as to the mineral loading pier in Los Vilos.

The set of observations that the Los Vilos community formulated on the project can be summarized as follows:

- With regard to the baseline of the marine environment the company presented to take into consideration in the environmental assessment project, objections were made to some technical aspects related to the marine fauna and conservation were objected.
- Regarding the location and orientation of the pier, there was concern of the repercussions for local fishing and tourism in the area.
- Regarding the management of the water from the filtered mineral concentrate in the surrounding areas to the coast and pier, the concern was if these waters were emptied into the sea (this the project always ruled out), the possible cases of risk and filtrations, and the possibility of these waters affecting the coastal vegetation and an important mangrove.
- Regarding the possible evacuation of water ballast in the inlet coming from the ships, the concern was its impact on the natural environment based on the knowledge that there are certain marine pests in the water where these ships load the mineral.
- Regarding the spills of concentrate on the pier, in spite of the high technology the project envisions, the fishermen pointed out their concern for fishing, tourism and the marine environment.

2.2 Regulation on citizen participation

Citizen participation in Chile with regards to the environmental impact assessment system happens when the project is published and presented to the community, and when they make their observations (within certain time limits) in accordance with specific legislation that assures a level of participation.

In the case examined, a series of formal and informal participation mechanisms were developed. The environmental authority convened and paved the way for meetings and the presentation of the project in each of the areas mentioned before. These activities helped the community, whether organized or unorganized, to be informed about the project and present their observations.

In the same way, the environmental authority presented the project to the municipalities and provincial governors, and proposed to facilitate the reception of observations. The essential publications were made and the formal observations were accepted in and outside the time limits.

The observations were submitted to the competent authorities and, once the environmental qualification resolution was completed, a statement was directed to those who had made the observations. Later, when the company asked for reconsideration of some of the points of the resolution, that the regional environmental authority partially accepted, it communicated this event publicly to the people who had made observations on the project.

2.3 Citizen participation volunteer process

2.3.1 Company's initiative

The mining company and owner of the project, the Chilean Society Compañía Minera Los Pelambres, declined to participate in this report, although they were formally asked. A personal interview was requested

with their lawyers, and on March 30th 2001, a note was sent attaching the background of the project for review. After many communications without a reply, on April 30th 2001 another note was sent, communicating our confusion for the attitude taken. To date, there has not been an answer.

In the face of this circumstance, another case study should have been chosen. Nevertheless, taking into account the features of the mining project Los Pelambres and its complex dynamic on citizen participation in the environmental impact assessment, prior to consultation with the entity that directs the program, it was decided to undertake this case.

2.3.2 The population

a) Effective participation

Of all the reviewed background, it can be concluded that, regardless of the good intentions of the project owner, apparently, there was not an effective participation by the community because tremendous contradictions remained among the communities. This demonstrated that the lack of trust of the community has in having the company represent their interests in citizen participation in the environmental impact assessment system of mining projects.

Of the three municipalities involved, two of them decidedly supported the project; the other opposed. This circumstance influenced the community. Meanwhile, the municipality authorities always participated as organizers of the presentation events of the project, and made their position clear from the beginning. This way, the community attending these meetings found themselves inclined towards one of the two «official» positions, and this was a disadvantage for the project and resulted in a prejudice attitude against it none of which is good for comprehensive citizen participation.

To conclude this point, it is recommended not to leave the convening of the local community to the municipalities, because these institutions do not act transparently. Instead, they defend their own interests and definitely obstruct citizen participation in the system.

On the other hand, although the company maintained a close relationship with each of the three municipalities involved, they were more interested in the social and economical aspects than the conservation of natural resources and the community's concerns.

b) Participation mechanisms used

In order to determine whether the citizen participation mechanisms were adjusted to local community's characteristics, a distinction must be made between operational areas:

- In the Los Vilos area, there was a good level of agreement in this sense.
- In the Illapel area, there was a low degree of participation (the students mostly participated), a wrong focus on reality, and too much influence from the municipality.
- In the Salamanca area, there were strong disagreements between the participation mechanisms used and the local community's needs (including their cultural traditions). The communication strategy was directed by technical specialists on certain matters and by the owner of the project; it was not simplified for the community to understand. Essentially, this strategy did not adjust to the audience it was directed to. Explanatory posters of the project were irrationally put up in the streets and plazas of the community's town with the same unintelligible terms, and promoters dressed in a suggestive way who handed out flyers with information.

c) The populations confidence

The community study verified an important level of trust of the community in the activities sponsored by the regional environmental authority and in the measures adopted when taking into account the observations outlined, even if they were outside of the legal time limit. This was because the authority and owner of the project took into account aspects that the people were most concerned about.

d) Extent of the strategy and results

Apparently, in this case there were disagreements on the magnitude of the strategy used (which included the three influence areas of the mining operations) and the results obtained, probably due to it being one of the first citizen participation experiences carried out in the influence area and because the community never understood how anyone could object to a project of this nature (a fatalistic and complacent attitude). All this translated into the limited number of observations formulated with not much consistency.

It must be pointed out that a good citizen participation strategy first requires a good diagnostic, that allows for understanding and identification of the implications of the project, and knowledge of the organized and unorganized social actors. Then, it is necessary to carry out educational activities directed to the people; they must be told of the citizen participation mechanisms and explained the nature of the project, the environmental problems it could generate, and the people's rights. Also, the influence area must be identified and involved in those activities.

e) Information given to the community

With regard to whether the information provided to the community in the citizen participation process of the informed case was timely, clear, according to the situation, and enough to understand the magnitude of the operations, the following can be pointed out:

- The information was insufficient to appreciate the real dimension of the project submitted to an environmental assessment. It was evident that the community thought that this project was unimportant and would have minimum impacts on the environment.
- As to whether the information provided was timely, it must be pointed out that this could have been the case at the beginning but soon after they were advised that the project was going to increase production volume more and more, thus, becoming a project of an unsuspected dimension without the community being informed. The life span of a mining project has been increased: from 25 years as mentioned at the beginning, to an estimated 50 years. At present, the company responsible for the mining deposit has officially announced its expansion. The processing capacity of a beneficiation plant will increase from 90,000 to 114,000 tons daily, and it has been anticipated that «one must not rule out that in the future, there is a possibility of increasing the capacity of the processing plant to 165,000 tons daily» (see Boletín Minero, Sociedad Nacional de Minería No. 1, June 2001, p.38).

The information provided to the community could have been influenced by the position of the municipalities, who did not always represent the interests of the community. It should be noted that the Mayor is only another key actor and not someone that should influence in favor or against a project.

Taking into account the lack of education and preparation of the community with regard to the effects of a mining project and their rights, it remained apparent in this case that the legal citizen participation mechanisms did not match the particularities of the community.

The concern of the regional environmental authority in charge of the procedure to make known to the local community the possibility of citizen participation must be highlighted. Among the instances promoted by this authority, the following should be mentioned:

- The drawing up and distribution of applications to guide and facilitate the community to present their observations the environmental impact study.
- The promotion of informal participation at meetings among the community, the authorities and the company.
- Publication of an extract of the environmental impact study in a newspaper of the area, dated February 13th 1997.
- Official letter O42, February 13th 1997, directed to the Mayor of the province of Choapa, remitting copies of the environmental impact study.
- Official letter 246, of May 28th 1997, directed to the Comisión de Medio Ambiente of the Cámara de Diputados de Chile, remitting an executive summary of the observations made by the community to the environmental impact study.

- Official letter 589 of July 26th 1997, from the Municipality of Los Vilos to the environmental authority sending the report on the observations of the environmental impact study.
- Official letter 535, of September 24th 1997, directed to the maritime authority of Chile, requesting an answer to the observations made by the community with regard to the marine environment.
- Official letter 12.600/20/74, of September 26th 1997, from the maritime authority to the environmental authority, with an Annex responding to the opinions and concerns outlined by the communities.
- Public letter 572, of October 9th 1997, directed to the natural and juridical persons that submitted observations of the environmental impact study, remitting a copy of the Resolución Exenta No. 071, of October 6th, 1997, that favorably classifies the Los Pelambres mining project.
- Publication of an extract of the reconsideration presented by the company with regard to the resolution that classified the environmental impact study, dated October 13th 1997.
- Official letter 691 of December 2nd 1997, directed to the natural and juridical persons that carried out observations of the environmental impact study, communicating and remitting a copy of the Resolución Exenta No. 101 that rendered a judgment on the request for consideration by the company.

2.3.3 Other actors

From the environmental impact study review and background included in the administrative record, certain deficient aspects in the technical and legal advice given to the key actors should be considered.

With regard to the company, owner of the project, a negligent legal consultant was noticed in the consideration of the study and in later resolutions. This deficiency, for example, is revealed in one of the points outlined by the community in their formal participation regarding the rule applied to water quality for irrigation of the area bordering the shipping port, a rule that environmental and mining law have clarified long before the date of the study.

Concerning the municipalities and a local sector of the community, the influence of a group called Observatorio Latinoamericano de Conflictos Ambientales on these entities was noticed. Counseling the Municipality of Los Vilos and certain fishing groups, this group influenced technical aspects and applicable legislation to the mining project.

3. Conclusions

Of the background assessed, some experiences with regard to citizen participation in a project can be highlighted.

The location of the mining operations in three diverse social-cultural areas with different interests gave the project a special complexity from the perspective of citizen participation in the environmental assessment system.

In spite of the good attitude of the company to make the project known and the efficient management of the environmental authority in charge of the environmental assessment process with regard to facilitating citizen participation, the language used did not adapt to the social and cultural features of the local community. Although it is a mining area, the community was not capable of understanding the extent of the project.

In this context, it remains difficult to explain the scope a project of this nature, situated in a complex area, considering the nature of the mining activities: the projects can expand or reduce, according to technical and economic possibilities, sometimes unpredictable when the operations start.

The influence of the municipalities on the position the civil community adopted should also be mentioned, as it reveals that the public entities do not necessarily represent the interests of the community, nor are they sufficiently transparent.

All these circumstances led the local community to adopt contradictory positions, even though a high degree of confidence in the system was demonstrated.

III. UNITED STATES: STILLWATER, ZORTMAN AND LANDUSKY MINES

III.a. STILLWATER MINE

1. General

1.1 Introduction

The picturesque Stillwater and East Boulder river valleys in the Beartooth Mountains of Montana — with their clean air, sparkling streams and scenic –vistas– are home to ranchers, farmers, trout fishermen and millionaires seeking refuge from the big cities. They are also home to the operations of the Stillwater Mining Company (SMC) – the only U.S. producer of palladium, precious metals that are critical components in the production of catalytic converters.

Because of the tremendous negative impact that mining can have on the quality of life in the valleys, SMC's operations and plans have been carefully monitored by community-based organizations - the Northern Plains Resource Council and its affiliate groups, the Stillwater Protective Association (SPA) and the Cottonwood Resource Council (CRC). SPA has focused on the mining company's operation in Nye (the «Stillwater mine») and CRC on the East Boulder River operations («the East Boulder mine»).

Over the years these groups have identified a wide range of environmental and social concerns related to the operation of the mine and have attempted to use many traditional legal tools, including participation in the environmental impact statement (EIS) process and citizen suits — to resolve their complaints. In the late 1990's the citizens' concerns became more acute as the company ratcheted up its production plans from 400,000 ounces a year to more than 1 million ounces a year by 2003 and also sought to open an immense tailings impoundment.

Acknowledging that traditional avenues had failed to yield results, the groups began exploring the use of a new tool: the Good Neighbor Agreement (GNA). In a Good Neighbor Agreement, the community directly negotiates with a local company to establish a set of principles and practices that will govern those aspects of the company's business that most keenly affect the community.

The local groups negotiating the Good Neighbor Agreement brought to the table their years of experience in using a variety of strategies, and this experience helped shape the GNA. With the signing of the Agreement on May 8, 2000, the Councils and the Stillwater Mining Company began a novel experiment to upgrade the company's environmental and social performance. One of the key strategies set forth in the Agreement for improving the company's performance is unprecedented community participation in company planning and environmental management. This strategy is reflected in the creation of a wide variety of mechanisms enabling the community to monitor the company's operations and engage it in an ongoing dialogue on key issues such as waste management, water pollution, and transportation.

In order to better understand how this innovative agreement came into being, the following case study will describe the history of the mines, their environmental and social impacts, the key players involved in the negotiations, the legal and other strategies used to bring the mining company to the table, and the terms of the agreement. The case study then identifies and analyzes the key factors leading to the negotiation of the agreement and summarizes lessons learned from the experience.

1.2 History of the Mines

The Stillwater mining complex consists of two mines, the Stillwater Mine and the East Boulder Mine. Approximately 80 miles southwest of Billings, Montana, the mines are located at the headwaters of the Boulder and Stillwater Rivers, on National Forest Service land. The mines are wholly owned by Stillwater Mining Company and have proven and probable reserves of 36.2 million ounces of palladium and platinum. The company's production consists of 75 percent palladium and 25 percent platinum.

The Stillwater mine began to operate in 1986 and significantly expanded its operations in 2000. The expansion, approved in 1998, allowed the mine to exceed the 2,000 ton-per-day production limit as well as to construct a new tailings facility. The facilities on the surface cover approximately 150 acres, and the underground mining operations extend for five miles.

The East Boulder mine is scheduled to begin limited operations in 2002. East Boulder is located 13 miles directly west of the Stillwater Mine near the town of Big Timber. When East Boulder reaches full production, it is expected to produce at an annual rate of 450,000-500,000 ounces of palladium and platinum at a production cost of \$140-\$160 per ounce. It is expected to operate at a production rate of 2,000 tons per day and has been engineered to allow future expansion.

1.3 Topics of environmental and social interest

Most of the land around the SMC mines is used for agricultural and recreational purposes, notably trout fishing. One of the primary threats to these land uses is contamination of surface water and groundwater from the potential discharge of harmful substances such as copper, zinc, lead and nutrients such as nitrates from the mining operations.

Nitrates, if discharged into surface waters are nutrients that can increase plant and algae populations within the stream, decreasing oxygen levels and adversely affecting aquatic life. In an effort to address this concern, in 2000 the company constructed two anaerobic biodenitrification treatment plants at the East boulder Mine that can remove 80% or more of the nitrates in the water. The waste rock from SMC's operations is low in sulfides, thus reducing the potential of acid mine drainage.

In addition to pollution concerns in the late 90's, local citizens also worried about the increased flow of traffic on the roads that would accompany the expansion of the Stillwater Mine and the construction of the East Boulder Mine. Dramatic growth in the number of vehicles on the twisting high mountain roads increases the likelihood of accidents as well as the need for road maintenance. Higher levels of traffic also could have adverse effects on wildlife, surface waters, and aquatic resources.

The potential impact of population growth and development in what are currently small rural communities also was of concern to the community groups. Such impacts are principally an issue in the Boulder River Valley where a significant increase in population is projected to occur when the East Boulder mine becomes fully functional. With more people, the community will need additional classrooms, law enforcement officers, road maintenance and sewer and water services. Tax increases may then be necessary to pay for these services.

The proposed plans for tailings storage and disposal facilities at the Stillwater and East Boulder mines also attracted the community groups' attention. In 1998 the Stillwater Mining Company's proposal to substantially expand its tailings compound at the Stillwater Mine from a capacity of 3.5 million tons covering 12 acres to a capacity of 15 million tons covering 163 acres, elicited great concern among the Stillwater River valley habitants. The construction of the new tailings facility, called the Hertzler Impoundment, included a 730 acre waste management facility which contains the 163 acre impoundment, a tailing pipeline corridor from the mine area to the impoundment, and a 182 acre water management facility.

The community's principal concerns with the Hertzler Impoundment were lower property values, loss of open space, noise pollution, and adverse effects to wildlife in the region.

1.4 The key main players

The Stillwater Mining Company is a small, publicly traded mining company. SMC recently moved its corporate headquarters to Columbus, Montana in order to consolidate its management offices with its administrative operations. Stillwater is generally viewed as being one of the more environmentally responsible mining companies in the U.S., with no environmental citations on its record after 14 years of operation. From the inception of SMC's operations, three non-governmental organizations based in Montana took on the responsibility for monitoring SMC's activities and pressing SMC to improve its environmental and social performance.

Since its founding in 1975 the Stillwater Protective Association (SPA), a citizens group based in Stillwater County, has focused its attention on the SMC operations near Nye, Montana (the «Stillwater mine»). The Cottonwood Resource Council (CRC), based in Sweet Grass County, was formed in 1988 to monitor and respond to the development of mining operations on the East Boulder River south of Big Timber, Montana. The Northern Plains Resource Council (NPRC) is a statewide grassroots organization of which the local resource councils are affiliates and is located in Billings, Montana. Its mission is to promote land stewardship, preserve family farms, ranches and small business and provide citizens with the information and tools for having an effective voice in decisions that affect their lives. Its board is composed of two representatives from each of its 11 local affiliates, plus a few at-large positions.

Several federal and state agencies also are responsible for regulating the environmental and social impacts of the mine. Although they were not represented at the negotiating table for the GNA, their actions or inability to act in many ways set the stage for the GNA. Montana's Department of Environmental Quality (MDEQ) is the main agency responsible for regulating mining in the State. Different divisions of the agency issue operating permits, surface water and groundwater permits and take the lead in reviewing environmental assessments and environmental impact statements required under state law in connection with the issuance of operating permits. The U.S. Forest Service (USFS), a federal agency, also is involved in the review of environmental impact statements because the mining complex extends onto U.S. Forest Service lands.

2. Experiences of the mine with public participation

Since 1978 the Councils have used a range of strategies and legal tools in their campaign to ensure that local voices are respected in decisionmaking concerning the mine. NPRC, SPA and CRC have reviewed and commented on five different environmental impact statements related to SMC's operations. They have challenged in court the decisions of several Montana agencies regulating the SMC's operations. After creating pressure on the company through lawsuits and media campaigns, in 1999, NPRC and its partners turned to a relatively new mechanism, the good neighbor agreement, as a vehicle for improving company performance and promoting community participation in decisions concerning the mine.

While SPA and CRC coordinated their campaigns, the strategies used to influence company activities at each site differed significantly due to a number of factors. These factors included: the different stages of development of each mine; the different legal options available; cost considerations; and access to the media. The following discussion reviews the key events that eventually led SMC to the negotiating table with both organizations.

2.1 Events Concerning the Stillwater Mine

In 1996, SMC sought to dramatically expand its operations at the Stillwater Mine. As discussed above, the company wanted to remove the existing 2,000 tons per day production cap and create a huge 120 acre tailings impoundment seven miles away from the original footprint of the Stillwater mine. The local citizens tried several different initiatives to halt or minimize the impact of the expansion.

One of the first legal opportunities for SPA to influence the scope and impacts of the expansion was participation in the environmental impact statement. To move forward with the expansion SMC filed for an amendment to the operating permit. Because the proposed expansion would have a significant environmental impact, Montana's Environmental Policy Act (MEPA) required the preparation of an environmental impact statement (EIS) by the agencies with jurisdiction prior to approval of the permit amendment.

In March 1998, the Montana Department of Environmental Quality (MDEQ) and Custer National Forest (CNF), the responsible agencies, released the draft EIS for the revised waste management plan and new tailings impoundment. SPA's members testified at public hearings and submitted written comments on the draft EIS. SPA members objected to the proposed impoundment, which would reach 160 feet over three phases, obliterating the horizon and threatening the pristine quality of surface and groundwater. SPA also objected to the failure of the EIS to impose any waste minimization requirements, such as underground disposal, as well as the lack of review of alternative sites for the impoundment. Although

the company indicated that the impoundment had a 30 year life, SPA concluded that it was in fact only a 20 year impoundment. They also felt that once committed to using the impoundment, the company would have little incentive in the future to use more efficient and environmentally friendly waste management practices.

Around the same time another group of local citizens—independent of SPA — tried to halt construction of the new tailings impoundment by creating a zoning district that would restrict the use of the land targeted for the impoundment to agricultural activities. Under Montana law a zoning district may be created by petition of 60% of the freeholders in the district. Thirty years ago a similar agricultural zoning district had been formed in the Stillwater Valley. The Stillwater County Commissioners approved the proposed agricultural zoning district (the Stillwater Corridor). However, there were several challenges to the petition creating the new district by the county, and the zoning district was later nullified by the Stillwater County commissioners due to the failure of the petitioners to have the necessary number of signatures on their petition.

In November 1998, after the final EIS was issued, CNF and MDEQ approved the expansion of the mine. Although several of the concerns that SPA had raised in the hearings and in its written comments regarding monitoring and management of the impoundment were adopted in the final EIS, SPA nevertheless believed that this document was fatally flawed in many respects. SPA then decided that filing a lawsuit was the best legal route to challenge the adequacy of final EIS. The group was foreclosed from filing an administrative appeal of MDEQ's decision because the Montana legislature had changed the law to take away this right. SPA also considered and prepared an appeal to the Forest Service. However since the Forest Service initially claimed that it would not play a major role in the appeal since its property did not include the proposed impoundment, SPA decided not to pursue this option.⁷⁹

In February 1999 SPA and NPRC filed the notice of intent to bring suit in state court against the Montana Department of Environmental Quality, challenging the adequacy of the final environmental impact statement. The suit sought to have SMC implement several mitigation measures that would reduce the impacts of the expansion. These measures, which would be monitored and enforced by MDEQ, included a bus requirement for mine workers travelling through the Stillwater Valley, monitoring plans for aquatic resources and contamination of surface and groundwater resources, and independently environmental audits.

Although SPA filed notice of intent to bring suit, its members decided that it was also worthwhile to approach the company directly. On March 31, 1999 SPA Chair Arleen Boyd sent a letter to Stillwater CEO William Nettles requesting an opportunity for the citizens to sit down with officials and discuss the possibility of a good neighbour agreement.

SPA and NPRC called on SMC to join them in developing written requirements for a bus and/or carpool agreement; to minimize traffic created by the increase in mine workers, a sound monitoring plan for water and aquatic resources; a program to continuously assess and implement technology and practices to reduce social and environmental impacts; periodic third-party audits; and creation of a working group with representatives from SMC and the concerned citizens to maintain lines of communication and address pressing issues. A similar letter was sent to Nettles on behalf of CRC.

At first Nettles was unwilling to sit down with the local groups, classifying them as adversaries. A combination of events involving both the Stillwater mine and the East Boulder mine (described below) changed his mind. In the effort to gain public support for the company's expansion, Nettles and others had emphasized SMC's record as an environmentally and socially responsible organization, thus almost ensuring that the company would need to participate in the negotiations. In addition, the company was very sensitive about the effect that any challenge or litigation would have on investor confidence. The potential SPA lawsuit, posing a credible threat to expansion of the company's operations, would certainly jeopardize investor relations. Consequently, in May the negotiations for the Good Neighbor Agreement commenced.

At the start of negotiations for the Good Neighbor Agreement SPA informed MDEQ that it was not going to move forward immediately with the lawsuit. At the time the law allowed 12 months after notice was

⁷⁹ In retrospect it became clear that an administrative appeal should have been filed because the Forest Service could have weighed in on the cumulative effects of the impoundment..

filed for the suit to be brought. The Montana legislature then changed the law to require service of the complaint within two months, rather than twelve. SPA believed this change was made in response to the strategy they had taken. Thus, in June 1999, SPA decided to serve MDEQ with the lawsuit complaint. SPA informed the company that while they would continue negotiations, they also were moving forward with the lawsuit so that they would not lose their right to sue.

When the suit was filed, SPA and NPRC publicly stated that they were not opposed to the mine or its expansion but believed that the existing EIS allowed the mine to proceed for the next 30 years without adequate protections in place. Among the specific inadequacies they raised in the lawsuit were: the failure to assess cumulative impacts from nearby mining and oil and gas activities, failure to require mitigation measures such as transporting the employees by bus, failure to provide for an adequate bond and reclamation plan, and failure to require adequate water quality monitoring. They were also concerned about DEQ's failure to require the mine to continually assess and implement appropriate new technology.

Even though they had these concerns and the suit had been filed, SPA and NPRC held off moving forward with the case during these negotiations because they believed they were better off at the negotiating table than in the courtroom.

2.2 Events Concerning the East Boulder Mine

In 1991 SMC's predecessor at the East Boulder Mine site, Stillwater PGM Resources, believed that the local water quality standards would need to be lowered so that the future development and operation of the mine would not trigger a violation of the law. Accordingly, SMC's predecessor petitioned the Board of Health and Environmental Sciences for modifications of the quality of ambient waters adjacent to the East Boulder mine site. CRC and NPRC opposed the petition through the administrative process. Despite this opposition, the Board, approved the petition.

CRC and NPRC then commenced litigation in the First Judicial District Court of Montana, claiming that the action violated the Montana Water Quality Act whose non-degradation clause required new sources of pollution to maintain existing water quality and to provide the degree of treatment necessary to maintain that quality. The state legislature then changed the law to allow for a minimal increase in the pollution level. This development led to the parties to consent to the dismissal of the case without prejudice. SMC's predecessors then put on hold plans to develop the East Boulder mine.

The next major legal opportunity for challenging the mine's activities came in 1997. SMC took control of and announced that it was planning to proceed with development of the East Boulder mine. It submitted an application to renew the water discharge permit (previously issued in April 1988 under their exploration permit) and a proposed Water Management Plan. The plan contemplated an expansion of the original area proposed for development. In response to these actions, CRC and NPRC requested that MDEQ's and Gallatin National Forest prepare a supplemental environmental impact statement (SEIS) for the proposed area expansion. The SEIS was never prepared because the groups went into direct negotiations with SMC.

In connection with the review of the application for renewal of the water discharge permit, CRC convened a meeting involving the company, the U.S. Forest Service, and MDEQ. It became clear from these discussions that the state officials were going to approve a permit authorizing a discharge level for nitrates that CRC did not believe met the state standard. Having already spent around \$60,000 without a conclusive result in its last attempt at litigation, CRC was hesitant to return to the courtroom to challenge the state's actions. On the other hand, CRC was aware that SMC needed an approved water discharge permit in order to receive its operating permit. Any legal challenge that slowed down the approval of this permit would keep the new mine from opening.

SMC also needed to have an approved hard rock mining impact plan in place in order to have its operating permit approved. When a new mine opens, the local community often faces increased tax obligations to fund new roads, schools and other infrastructure costs. Yet it is often years before there is sufficient tax revenue from the mine's operations to cover these costs. To help relieve the upfront tax burden that besets these local communities, Montana now requires that the mine prepay its taxes in an amount identified in a hard rock mining impact plan that must be approved by the municipalities, counties, school boards and other local government units.

In its original hard rock mining impact plan prepared in 1995 SMC projected that with 600 miners and their families coming into Sweet Grass County, a new grade school would be necessary. In 1998 they amended the plan to reflect the accelerated mine production schedule. In this plan, the company indicated that a school would no longer be necessary because experience with the Stillwater mine showed that many workers would choose to commute rather than move into the local community. In addition, SMC would be building «a man camp», a dormitory that would house workers during the week. The families of these workers would maintain permanent residences outside Big Timber. T

The school board signed off on this new plan, in part because there was skepticism in the community about whether the mine would in fact be developed and the community did not want to be stuck with a school that was not needed. As mining operations moved forward, CRC members became increasingly concerned that school impacts and local infrastructure were not adequately addressed by the impact plan.

In the summer of 1998, two articles appeared in the *New York Times* that helped spark the dialogue leading to negotiation of the Good Neighbor Agreement. On August 1, 1998 Thomas McGuane, a nationally-known author and Sweet Grass County resident, wrote an op-ed article for the *Times* questioning the pace and nature of the East Boulder Development, while acknowledging that Montana needed jobs from mining. He criticized the «de-listing» of the East Boulder River where the mining will take place from its «threatened status», and raised concern over the proposed installation of a «man camp» at some undetermined location.

The Chairman of SMC, William E. Nettles, responded immediately to McGuane's article in a letter to the editor of the *Times*, casting the issue raised in McGuane's piece as development versus preservation of the environment. He highlighted SMC's importance as the only significant producer of platinum and palladium in the western hemisphere (with the current major supplier of palladium, Russia, being unreliable) and underlined the importance of palladium and platinum operations to the environment (automobile manufacturers rely on them to manufacture vehicles that meet emission standards). Nettles also denied that the company had concealed its plans and stated that the appropriate public officials and residents were being included in the decision-making process.

Nettles' response did not end discussion of the East Boulder development in the *Times*. On August 13, the *Times* published an editorial accusing Montana DEQ of giving SMC a «license to pollute» for the East Boulder mine, and called on SMC to «take the lead in environmentally sound mining practices.»

SMC was significantly concerned about the impact these articles might have on the company's financing and stock price. Investors were already nervous because of other recent mining operations that had been shut down.

In addition to responding in print to McGuane's allegations, CEO Nettles called McGuane directly. McGuane then invited Nettles to meet with several community members at a social gathering. This was the first face-to-face meeting of the community activists with the CEO and was a critically important step in their strategy to launch negotiations with the company. In March 1999, Paul Hawks of CRC sent a letter to the SMC proposing direct negotiations with the company, and in May 1999, the negotiations began.

2.3 The Good Neighbor Agreement

Negotiation of the Good Neighbor Agreement took the better part of a year. Representing the company in the initial talks were top company officials: President John Andrews, Chief Executive Officer William Nettles, and Chris Allen, Vice President for Safety and Government Affairs. The Councils were represented by SPA chairman Arleen Boyd and SPA members Jack Heyneman, Daryl Jensen, Noel Keogh and Henry Connor; and CRC chairman Paul Hawks and CRC members Jerry Iverson, Tammi Tragakiss, Jeanne Aller, Margaret Vermillion and Connie Anderson. Heyneman also represented NPRC in the negotiations. Mike Reisner of NPRC served as a strategist for SPA and CRC.

After achieving a «handshake» agreement in September 1999, the negotiations almost collapsed over secrecy and litigation issues as the legal document was being drafted. As a publicly traded company, SMC felt it could not legally provide the Councils with access to information that had not been disclosed

to the public at large. It also wanted to be able to terminate the entire agreement if the citizen groups legally challenged any future action by SMC or a successor. The Councils were forced to break off negotiations. Eventually, after discussing the tenants of the «hand shake agreement» and recognizing that there was agreement in principle, the two sides came back to the table for another try.

In the end the citizen groups succeeded in creating what they had originally sought and had not been able to obtain directly through traditional legal means: a legally-binding enforceable agreement that imposes upon the company more stringent environmental standards, practices and procedures than required by either Montana or federal law. In the agreement SMC unambiguously committed to:

- develop and implement new water treatment and waste reduction technologies to achieve zero discharge of wastewater and to eliminate or greatly reduce the need for large waste dumps;
- place thousands of acres of rangeland and wildlife habitat into conservation easements;
- put in place a comprehensive water protection program, including expanded water monitoring of direct discharges, surface water, and indirect discharges using parameters designed to identify potential as well as actual violations;
- perform independent environmental performance audits and implement audit recommendations; and
- build employee housing only within existing populations centers and limit traffic.

The agreement also establishes groundbreaking provisions on citizen access to information, as well as on public participation in monitoring and decision-making concerning the mine. Here SMC agreed to:

- allow citizen group consultants to inspect mine facilities, interview employees, and take pictures and samples with independent technical and scientific consultants;
- permit citizen groups to review and comment on the company's future amendments and revisions to the mine operating permits and MPDES permits for the East Boulder and Stillwater mines as soon as possible, but at least three months prior to submission to the relevant agency;
- consult with citizens before acquiring property for future tailings and waste rock disposal or developing camps to house workers;
- support the creation of a citizen oversight committee to monitor implementation of the agreement and establish a process for considering new issues;
- pay for the costs of independent scientific and technical consultants who would conduct: environmental audits, an evaluation of the company reclamation plan and bonding, a fisheries study and monitoring plan, a project to minimize production of tailings and waste rock, a baseline water quality report, and ground water studies;
- pay for administrative and travel costs of committee members and consultants as well as costs of citizen sampling up to \$270,000 over the first two years of the agreement; and
- notify the relevant oversight committee if any water quality trigger level is exceeded and prepare a corrective schedule for compliance, with participation by the Councils in any remedial investigation or audit and approval by the Councils of the corrective schedule.

In exchange for these commitments, SPA agreed to withdraw the lawsuit concerning the impoundment and CRC agreed not to challenge the MPDES permit. The councils also agreed to work with SMC to prevent future lawsuits including those by third parties.

2.4 Factors Contributing to Success in Reaching an Agreement

There were several strategies and circumstances that brought SMC to the negotiating table and contributed to the success of the negotiating teams in reaching a legally-binding, innovative agreement that addresses a wide array of social and environmental issues and institutionalizes public participation in monitoring, planning and management of the company.

The first factor was the organizational strength of the Councils. SPA and CRC are local, grassroots organizations with dedicated members. They have been carefully monitoring the development and operation of the Stillwater and East Boulder mines for years. As members of NPRC, these groups had

immediate access to the umbrella group's legal, technical and advocacy expertise. NPRC itself has 30 years of experience challenging mining companies in the courtroom and through the media. This institutional capacity was critical to the effectiveness of the Councils in creating the political climate that brought SMC to the table and that carried them successfully through the negotiations. «One of the most important elements of CRC's success is that we have for years actively lobbied the legislature, testified at public hearings, provided comments on numerous Environmental Impact Statements (EISs), sponsored candidate forums, educated the public on the Hard Rock Impact Plan, and written letters to the editor of local papers. We've done everything, and people know us. And when the state and the mining company acted in a way we believed was improper, we sued.

As said by Jerry Iverson, member of the CRC:⁸⁰

One of the most important elements for the CRC's success is that we have for years actively lobbied the legislature, testified at public hearings, provided comments on numerous Environmental Impact Statements (EISs), sponsored candidate forums, educated the public on the Hard Rock Impact Plan, and written letters to the editor of local newspapers. We've done everything and people know us. And when the State and mining company acted in a way we believed was improper, we sued. That's how you build leverage.

Another major factor was the early decision by the Councils to limit the agenda for the negotiations to local issues and not take on issues of national scope such as reform of the 1872 Mining Law. This decision made the agenda for the negotiations more attractive to SMC. The Councils also decided early on with their members that the groups were not going to oppose the mine, only press for responsible mining.

The changing demographics of the local communities also played a role. New landowners representing tremendous wealth had recently moved into the area. These new residents had come to the area for the clean air, clean water, and open space. They were willing to provide financial support to the Councils and to help focus the spotlight of the national media on SMC's operations.

The Councils also benefited from strong outside legal and technical support during the negotiations. In addition to NPRC's legal expertise, Jim Kuipers, a mining expert with decades of experience in the industry who regularly works with community groups, advised the Councils on technical issues. NPRC also arranged for the Council representatives conducting the negotiations to participate in an intensive negotiation skills training session by an outside expert.

The unique qualities and leadership of SMC were major factors in the successful negotiation of the GNA. Historically, the company has had a more progressive and responsible approach to environmental and social issues than many mining companies coming into the negotiation of the agreement. For example, its environmental practices already include the use of closed circuits and interim reclamation of waste rock. SMC is also fortunate not to be dealing with the complex problem of acid mine drainage. The key nutrient of concern is nitrogen, a contaminant derived from blasting agents. The company was basically comfortable with the existing environmental regulatory process and had no history of violations. The company also had a track record of consulting with the community.

SMC was subject to substantial pressure from other mining companies and trade associations not to enter into an agreement. However, top company officials live in the area and were concerned with preserving the beauty and quality of life in the valleys. CEO Nettles was personally committed to making the agreement happen. Establishing personal relationships with the negotiating parties and developing a level of trust was essential to the successful outcome.

Finally, SMC is a publicly owned company. Its investors include socially responsible mutual funds. Thus, its share prices and ability to attract investment were sensitive to public criticism, especially criticism appearing in a newspaper like the *New York Times* that is regularly circulated to and respected by investors.

The economics of the agreement also contributed to its successful conclusion. The final terms of the Good Neighbor Agreement, while imposing certain additional costs on the company, did not affect the

2 Anne Fitzgerald y Laura Goldman, «In search of a path of the agreement: integral study of a case of Good Neighbor Agreement.» November 16 2001.

number of jobs or jeopardize profitability. The increasing demand for and scarcity of palladium had driven the price higher and higher providing a financial cushion of sorts for the company. And the provisions of the agreement promoting responsible mining practices and new technology could be viewed as presenting opportunities for cost savings by potentially reducing clean-up costs, and promoting efficiencies in operations.

Finally, the political situation in Montana provided motivation for the company to reach an accord with the local community. Montana voters had recently passed an initiative banning cyanide heap leaches and officials were looking at water issues related to mining. The possibility of a Democratic governor in Montana and a Democratic President in the White House made more restrictive legislation appear more likely. The Good Neighbor Agreement represented an opportunity for the company to protect its current situation.

2.5 Future Concerns

The Good Neighbor Agreement faces considerable challenges in the future. SPA and CRC members as well SMC officials are deeply concerned about the ability of the volunteers from the Councils to sustain the effort necessary to keep the agreement functioning, including participating in monitoring and serving on the committees. The Councils are now trying to involve more community members in the implementation of the agreement.

From the perspective of the company, it has been a constant challenge to work at the same time with the two different citizen groups in drafting and implementing the agreement. At one point, for example, the groups differed on whether or not compensation should be paid to the volunteers serving on the working committees.

The agreement has been the target of criticism from many sides. From the perspective of the Councils, some of this criticism is due to a lack of familiarity with and understanding of the actual terms of the GNA by its critics. Some of the criticism also comes from environmental groups, such as the Mineral Policy Centre, with a broader mining reform agenda than that of the Councils.

There is also concern about what would happen if there was a change in company leadership or if the company were taken over. Already a new CEO has been selected, but the Vice President who originally played a major role in negotiating the agreement is still in place. Right now the agreement specifically states that it is binding on SMC's successors and assigns, with an acknowledgment by the parties that one of the express purposes is to bind SMC and its successors and assigns. SMC was also required to record an abstract of the GNA with the Clerk and recorder of any county in which real property that is affected by the Agreement is located. It is an open question as to what would happen if a larger, less environmentally responsible company took over SMC. While some community activists welcome the opportunity to try to influence the practices of a larger mining company, there is a keen appreciation of the fact that the GNA might not legally or practically survive such a change in control.

The commitment of SMC to comply with the procedures and standards outlined in the Agreement has recently been questioned. In 2001 SMC requested from the agencies to have the production cap at the East Boulder mine lifted as part of another EIS. The community groups considered challenging this part of the EIS. SMC agreed that the councils could challenge the production cap removal without the agreement dying; an outcome that would keep SMC subject to other key provisions of the Agreement. Recently SMC chose to drop the production cap issue from the EIS due to cost.

Another challenge arose when, because of a drop in the price of palladium, SMC decided to stop the bus program for the Stillwater mine operations without following the procedures in the GNA. Because of negotiations with SPA, the company has since agreed to continue the bus service at least until March 2002 and will continue to work with the Councils on other ways to reduce traffic impacts should SMC need to suspend the buses for financial reasons.

3. Conclusions

While the initial heavy reliance of the Councils on traditional legal mechanisms such as participation in the environmental impact assessment process, challenges to the decisions of several Montana agencies, and citizen suits to improve the company's performance may have failed to yield immediate results on the ground, the use of these mechanisms combined with non-traditional strategies such as media campaigns, were critical factors in setting the stage for the negotiation and signing of the Good Neighbour Agreement.

However, because so many other unique factors, ranging from the organizational and technical strength of the Councils to the political situation in Montana to the progressive qualities and leadership of SMC contributed to the development of this Agreement, other mining communities in the U.S. and abroad may find it difficult to replicate this experience.

On its face, the Good Neighbor Agreement has much to recommend it. It commits the company to undertake critical measures (beyond those required by law) to protect the environment and local community welfare. It provides for extensive public participation in the management of the company. Yet the fragility of the Agreement is made very evident by SMC's apparent readiness to violate key terms of the Agreement without following the procedures outlined in the GNA.

Perhaps the major contribution of the GNA has been to develop relationships between company officials and members of the community and to open the doors for constructive dialogue on company performance. The long term success of the GNA, however, still appears largely tied to the good will and hard work of the two sides to the Agreement — factors which may not be guaranteed over the life of the mine.

III.b. ZORTMAN AND LANDUSKY MINES

1. General

1.1 Introduction

In northern Montana, the Little Rocky Mountains stand above and apart from the neighboring hills. Native Americans named these mountains the Island Mountains because they appear as land rising from the surrounding sea. The Island Mountains are home to a vast array of plants and wildlife and play an important part in the spiritual and cultural activities of the two Native American tribes that reside nearby. They are also home to the Zortman and Landusky Mines (ZL mines), the world's first cyanide heap leach mines and the source of substantial environmental harm within the Island Mountains and the surrounding watershed.

The Fort Belknap Indian Reservation, home of the Assiniboine and Gros Ventre Native American tribes, lies just to the north of the ZL mines and relies in part on streams and groundwater emanating from the Island Mountains for its drinking water supply. Despite repeated warnings from the tribes and their representatives to federal and state officials, acid mine drainage (AMD) and cyanide from the ZL mines contaminated the surface and groundwater resources adjacent to the Reservation. Many tribal members have experienced negative health effects that they blame on contamination from the ZL mines. Mining activities and contamination from the mines also has destroyed many of the culturally-important sites and flattened one spiritually significant mountain.

Since Pegasus Gold Corporation (Pegasus) and its wholly-owned subsidiary Zortman Mining Inc. (ZMI) opened the mines in 1979, the tribes have pursued a number of legal avenues to protect their natural resources and lifestyle. Joining forces with lawyers and technical mining experts, they commented on and administratively challenged the numerous environmental assessments and several environmental impact studies conducted by the State of Montana and U.S. Bureau of Land Management. They also brought citizen suits under a variety of laws, including the Clean Water Act and Montana Water Quality Act, in their effort to halt damaging mining practices and to return the land to its former state.

The tribes sought to influence the selection of a reclamation alternative for the mines. In November 1998, the right of the tribes to be formally consulted in the selection of the reclamation alternative was acknowledged as the result of an earlier challenge to the mine's expansion.

The Montana Department of Environmental Quality (MDEQ) and BLM then decided to use a process known as Multiple Accounts Analysis in connection with the consultations on the remedy. The MAA process was a team effort in which individuals from government and the Fort Belknap reservation, along with their technical consultants and the agency appointed engineering firm, identified, reviewed, and evaluated reclamation alternatives for the mine sites.

The MAA process provided the tribes with an opportunity to identify, and prioritize, the impacts of greatest concern to them. The MAA process concluded with the identification of preferred reclamation alternatives for the ZL mines. While the subsequent record of decision (ROD) endorsed the preferred alternatives identified through the MAA process, it also included less costly back-up alternatives in case the funding necessary to carry out the preferred alternatives could not be raised. The tribes are now concerned that Congress will not fund the preferred, but more expensive, reclamation alternatives.

This case study examines citizen participation processes surrounding the ZL mines. It focuses on the processes used to evaluate the expansion of, and selection of reclamation alternatives for, the ZL mines, with a special focus on the use of the MAA process for consulting with the tribes. The case study will describe the history of the mine, the key stakeholders, and their experiences with legal and other strategies for citizen participation. The case study then identifies and analyzes the relative success and failures of the MAA process and other participatory strategies from the perspective of the tribes and other stakeholders.

1.2 History of the Mines

In 1851, the United States and a number of separate Native American nations, including the Assiniboine and Gros Ventre Tribes, signed the Treaty of Fort Laramie. The treaty reserved territories for the Native American nations involved in the negotiations. Pursuant to the treaty, a tract of land known as the Fort Belknap Reservation was reserved and set aside for the Assiniboine and Gros Ventre Tribes in 1888. The Act setting aside this land reserved to the tribes the full use of all waters flowing to and entering the reservation lands, including water from the Island Mountains.

In 1895, Pike Landusky and Pete Zortman discovered gold on land within the Fort Belknap Reservation. Subsequently, the U.S. government initiated negotiations with the reservation's tribes for the cession of the Island Mountains from the Fort Belknap Reservation so that the land could be mined. The tribes sought assurances that the reservation's water resources would not be affected by any agreement and that the tribes would have all the water that they needed. The United States made such assurances in writing, but it also reportedly threatened the tribes with loss of their winter food supplies if they refused to cede the land to the government. Faced with such prospects, the tribes signed the Grinnell Agreement on October 9, 1895, and thereby sold at least 40,000 acres of land to the U.S. government.

Almost immediately after the signing of the Grinnell Agreement, the United States government opened the ceded lands to mining. Underground mining for gold and silver began in the early 20th century and continued until the early 1950's. At that point, mining in the Island Mountains became unprofitable. The large, easily accessible veins had been mined to their capacity, and only low-grade gold ore remained. The federal government actually initiated talks regarding the return of the ceded lands to the Fort Belknap Reservation, but these negotiations ended soon after Pegasus announced that it had discovered a new method of mining low-grade ore using cyanide and open pit mining.

In the early 1970's, Pegasus and ZMI proposed to reinstate mining in the Island Mountains using the new cyanide heap leach method. In 1979, the State of Montana completed an environmental impact statement for the ZL mine, and subsequently granted ZMI two operating permits. Because the mines were partly on federal land, the Federal Bureau of Land Management also had jurisdiction. After BLM's surface management/mining regulations went into effect in 1981, the agency approved the plan of operations at the two mines.

The state permits and federally-approved operation plans authorized the mining companies to disturb 273 acres at the Zortman mine site and 256 acres at the Landusky mine. The permits allowed the mining of oxide ores in accordance with ZMI's application; they did not address the mining of sulfide ore because ZMI represented that it would be mining oxide ores and not the sulfide ores also present on the site. Sulfides, when exposed to air and water, can create an acidic mixture known as acid mine drainage.

While in production, the ZL mines were the lowest grade gold mining operation in the United States. The production of one ounce of gold required the processing of 60 to 100 tons of ore. The mines sought to expand and disturb increasing amounts of land in order to remain profitable. Between 1980 and 1990, ZMI received ten additional permits and permit modifications to expand mining operations at the Landusky mine site. Neither BLM or MDEQ prepared an environmental impact statement (EIS) in connection with any of the expansion permits. They did, however, conduct environmental assessments (EAs). But for each EA, the agencies made a finding of no significant impact (FONSI) to the environment. Under federal and state laws, such FONSI findings excused the agencies from completing an EIS for the expansions.

In authorizing the tenth expansion, the agencies also issued additional permits for multiple purposes including access roads, leach pads, and storm water ponds. As a result of expansion and the additional permits, the total permitted area of disturbance at the Zortman Mine increased to 401 acres. Similarly, the new permits at the Landusky site resulted in increasing the approved area of disturbance to 814 acres.

1.3 Environmental and Social Concerns

Mining at the ZL mines had devastating environmental impacts on the mine sites and the surrounding region. The ZL mines generated significant amounts of waste material, including wastewater, waste

rock, and process wastes. The ZL mines also produced AMD when ZMI mined sulfide ore that its initial operating permit did not authorize. The impacts of the AMD then spread beyond the mine sites into the watersheds of the Island Mountains as ZMI failed to properly contain AMD from the mines. Eventually ZMI became bankrupt and defaulted on its obligations to maintain and reclaim these sites.

Two of the tributaries from the watersheds that surround the ZL mines - King Creek and Lodgepole Creek — drain onto the southern portion of the Fort Belknap Reservation. The tribes use the surface water and groundwater from the Island Mountains for irrigation and, more importantly, drinking water. Water quality data at the mine site indicate higher than normal sulfate, iron, aluminum, selenium and nitrate levels in King Creek, and the tribes claim that the water quality of Lodgepole Creek also has been degraded. The tribes assert that it will take years for these watersheds to be returned to a safe uncontaminated state.

In addition to the two tributaries draining onto the Fort Belknap Reservation, the tribes claim that the Zortman Landusky mines have contaminated the watersheds that drain to the south of the Island Mountains, away from the reservation. Although these watersheds do not drain to the reservation, the tribes claim that they have important historical and cultural significance and flow across traditional tribal lands and cultural sites, and that AMD from the ZL mines may also have impaired these sites.

AMD from the ZL mines also seriously threatens tribal health and the wildlife surrounding the reservation. Tribal members report anecdotal evidence of an unusual number of stillbirths and other major health problems on the reservation which they attribute to cyanide contamination from the ZL mines. Further, the tribes contend that pollution from the ZL mines has killed native fish and wildlife that live in the watersheds of the Island Mountains.

The Island Mountains also serve as a place of important spiritual, religious, and cultural significance to the tribe. The entirety of the Island Mountains are eligible (and currently under consideration) for designation on the National Register of Historic Places as a traditional cultural property under the National Preservation Act. The area is used for ceremonial purposes and the graves of many tribal members are located in and around the Island Mountains. Tribal members can no longer use certain sacred areas of the Island Mountains due in part to water pollution from the mines and ZMI's closure of certain areas. BLM itself has acknowledged that mining in the area has had a significant negative impact on the tribes' cultural resources.

1.4 The Key Players

The Gros Ventre and Assiniboine Native American Tribes reside on the Fort Belknap Indian Reservation. The Fort Belknap Reservation is a 652,000 acre tract of land in north central Montana, immediately adjacent to the ZL mines. The Fort Belknap Indian Community Council is the governing body of both tribes.

In their efforts challenging MDEQ's and BLM's actions at the ZL mines, the tribes were aided or joined by several citizen groups. The Indian Law Resource Center (ILRC) in Helena, Montana, which seeks to enforce those laws that preserve the rights of indigenous people, represented the tribes in their state court challenges to MDEQ's and BLM's actions concerning the ZL mines. The Western Environmental Law Center (WELC) represented the tribes in their challenges to federal actions concerning the mines. Currently, WELC and ILRC are serving as co-counsel to the tribes in their suit against BLM, the Bureau of Indian Affairs (BIA), and the United States for violation of their trust obligations to the tribes. In addition, the Island Mountain Protectors is an association of members of the Fort Belknap Indian Reservation and was the first to bring claims against ZMI and Pegasus. A similar group, Red Thunder Inc., also challenged decisions by MDEQ and BLM regarding operations of the ZL mines. Red Thunder is a non profit corporation composed of traditional Native Americans and located on the south end of the Fort Belknap Indian Reservation.

National and regional environmental groups also brought claims challenging MDEQ and BLM actions at the ZL mines. The National Wildlife Federation (NWF) is a national non profit conservation organization that joined the tribes in opposing the expansion of the ZL mines. The NWF challenged the mines' expansion on the grounds that it would violate the Montana Metal Mine Reclamation Act and the Montana Constitution which require the effective reclamation of open pit mines. The Montana Environmental

Information Center (MEIC), a state based group committed to protecting Montana's natural resources, also joined the tribes' challenge to the expansion of the mines.

Several federal and state agencies are responsible for regulating the environmental and social impacts at the ZL mines. The U.S. Bureau of Land Management (BLM) is an agency of the U.S. Department of the Interior that is responsible under the Federal Land Policy and Management Act (FLPMA) and its regulations for the management of mining activities on federal public lands, including the Island Mountains and the ZL mines.

Under FLPMA and its regulations, BLM must not allow mining activities to result in the «unnecessary or undue degradation» of federal lands. BLM also is charged with fulfilling the U.S. trust obligations to the tribes of the Fort Belknap Indian Reservation with respect to the mining activities within the Island Mountains.

In addition to BLM, the U.S. Bureau of Indian Affairs within the U.S. Department of the Interior and the U.S. Department of Health and Human Services has responsibilities as U.S. trustees to protect and enhance the quality of life and health of the tribes. The Interior Board of Land Appeals (IBLA), an administrative tribunal in the U.S. Department of the Interior, has jurisdiction to review activities of Department of the Interior agencies, such as BLM.

At the state level, the Montana Department of Environmental Quality is responsible under the Montana Metal Mine Reclamation Act for ensuring that all lands within the state that are disturbed by mining receive the «greatest reasonable degree» of protection and reclamation to a beneficial use. Under this Act, MDEQ has the authority to issue operating permits and to inspect mines for compliance with permits and any applicable environmental laws. MDEQ also is responsible for the administration and enforcement of the Montana Water Quality Act and the state Public Water Supply Act. Montana also has its own environmental impact assessment law. The Montana EIS and the federal EIS requirements were met in this case by preparation of a joint federal state EIS document.

From 1979 through 1999, ZMI operated the ZL mines. Pegasus Gold Corporation, a Canadian mining company, operated multiple mines in North America and elsewhere. In January 1998, however, Pegasus and its wholly owned subsidiaries, including ZMI, filed for bankruptcy. With its bankruptcy, Pegasus abandoned several of its mines, including the ZL mines. In 1999, the owners of Pegasus acquired several Pegasus properties from the bankruptcy proceedings, which now operate under a new name, Apollo Gold Inc.

2. Experiences with citizen participation

2.1 Events at the Zortman and Landusky Mines

From the commencement of large scale, open pit mining operations at the ZL mines, through the multiple expansions of the mining sites, and the selection of interim remediation and reclamation measures, the tribes and others diligently sought to present their concerns through legal avenues. In 1979, the Montana Department of State Lands prepared a draft EIS to examine the impacts associated with the development of a large scale, open pit mining operation by Pegasus Gold Corporation and ZMI. The tribes submitted detailed comments to the 1979 EIS in opposition to the opening of the ZL mines.

In their comments, the tribes noted that there was no proof that the area could in fact be reclaimed, and demanded that concrete evidence of reclamation be required before allowing mining to begin again. In response, the Montana Department of State Lands stated only that the reclamation plan was sufficient. The Montana Department of Fish and Game also submitted comments to the 1979 EIS, stating that AMD could be a big problem at the proposed ZL mines. The Montana Department of State Lands responded that AMD would not be a problem because the proposed pits would not be dug in sulfide-bearing ore areas. In May 1979, the final EIS was issued and two operating permits for the mines were approved. BLM approved these permits and their attendant operating plans in 1981.

Between 1981 and 1990, the operating plans and permits at the ZL mines were amended ten times. Each of the amendments allowed for the expansion of mining activities. The responsible agencies did

not prepare an EIS for any of the expansions. Instead, the agencies completed an EA and, subsequently, issued a FONSI for each proposed expansion. In completing the EAs for the proposed expansions, BLM and MDEQ did hold public meetings and accept public comments regarding the expansions. The tribes and others objected to the expansions and raised questions regarding the environmental impact of the mines. Nevertheless, the agencies authorized the 10 expansions.

Representatives of the indigenous communities repeatedly tried to shed light on the mines' potential to produce acid mine drainage. In 1990, for example, Red Thunder and the Fort Belknap Community Council challenged the adequacy of the environmental assessment for the expansion of the Landusky Mine. The groups asserted before IBLA that BLM improperly failed to analyze the impacts of mining sulfide gold and silver ore at the site. IBLA, however, found that BLM was allowed to segment the environmental review so that the effects of mining non sulfide (oxide) ore were considered independently of the potential effects of mining sulfide ore which was not then proposed by ZMI. ZMI itself acknowledged in the appeal that an EIS should be prepared if it submitted an application for development of sulfide materials at the Landusky mine.

This same challenge also demonstrated that laws protecting indigenous rights can be interpreted in limited fashion. The challengers argued that BLM had failed to comply with the American Indian Religious Freedom Act of 1978 (AIRFA), which states:

On and after August 11, 1978, it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

In response, IBLA found that while some of the effects of the proposed mining - such as the removal of an entire mountain peak - may be «disruptive to individual Indian religious practices,» BLM is not required to preclude other public land uses simply because Native Americans may not be in agreement with that use. In other words, AIRFA only requires that federal agencies consider but not defer to, Native American religious values.

In 1992, ZMI submitted plans for its 11th major expansion of the ZL Mines. MDEQ and BLM then began a review process, which ultimately showed that AMD had already become a significant management issue at the ZL Mines. In late 1992, BLM sent ZMI letters notifying the company that its operating and reclamation plans needed to be modified in order to address the AMD at the ZL mines. In early 1993, BLM and MDEQ issued a press release concerning AMD at the mines, which appeared statewide in the headlines of newspapers. ZMI, in turn, replied that it would only modify its plans if the agencies followed the proper administrative process. Consequently, in April 1993, BLM issued a formal administrative order requiring ZMI to formally modify its reclamation plan.

In June 1993, the environmental groups, Island Mountain Protectors and Red Thunder Inc., representing the interests of the tribes, gave written notice to EPA that they intended to file a federal Clean Water Act citizen suit against the mines based on the disadvantages of AMD. The tribes also began to document violations at the mines, and organize protests and marches opposing the expansion. In July 1993, however, after a heavy storm, a massive flow of AMD from the ZL mines washed into the town of Zortman. ZMI subsequently proposed modifications to its reclamation plans, and these plans were subsequently submitted to the public for review. BLM and MDEQ then required that an EIS be prepared to examine the proposed expansion of both mines.

At all of the public meetings and throughout preparation of the draft EIS, the Fort Belknap Reservation, environmental groups, and individuals offered numerous written and oral comments regarding their concerns with expansion of the ZL mines. Of greatest concern were the potential impacts of expanded mining on the surrounding environment and on the tribes' cultural and natural resources. In addition, comments questioned the impact of the expanded mining on the area's water quality and water supply, including the effect of AMD from the mine on surface waters, drinking water, wildlife and wetlands. The tribes also asserted that the BLM and MDEQ were working with inadequate information on how the groundwater in the areas moved.

While BLM and MDEQ prepared the new EIS, the Montana Department of Health and Environmental Sciences issued an enforcement order against ZMI for the AMD discharges to state waters. In 1993, the State of Montana sued ZMI and Pegasus in state court alleging violations of the Montana Water Quality Act. In 1995, the U.S. Environmental Protection Agency (EPA) also sued the mines for contamination of the surrounding watersheds with AMD. Thereafter, the state refiled its suit in federal court.

Citizen suits against ZMI by the Fort Belknap Indian Community Council and Island Mountain Protectors also were filed in federal court alleging violations of state and federal laws. Pegasus eventually settled the suit with EPA and agreed to pay \$37 million in fees and bonds to the federal and state governments and to the tribes. Most of the money (\$32 million) went to build water treatment facilities. Notably, the settlement did not cover surface reclamation, an issue not addressed by the state and federal water quality laws, but subject to the state metal mining permits and BLM plans of operations.

After the EIS was finalized in October 1996, MDEQ and BLM *approved expansion* of mining at both mines in a record of decision (ROD) that also required implementation of specific measures to control acid drainage. Under state and BLM approval, the total disturbance at the mines would increase to 2,195 acres. Eighty million tons of ore and 60 million tons of waste rock would be produced from the Zortman mine.

The Fort Belknap Community Council, the Island Mountain Protectors, and NWF challenged BLM's federal approval of the expansion before the IBLA. They argued that BLM had again violated its trust obligation to the tribes by failing to gather adequate information about the native cultural and natural resources that would be affected by expansion of the mining. In addition, the tribes claimed that BLM failed to analyze alternative reclamation measures such as backfilling. Further, the tribes claimed that BLM failed to adequately address these impacts in the EIS. The tribes also argued that the expanded mining operations would divert water away from the Fort Belknap Reservation in violation of their water rights.

In 1997, the Fort Belknap Community Council, NWF, and the Montana Environmental Information Center appealed MDEQ's approval of the 1996 state ROD in state district court. Unlike BLM, MDEQ does not have a trust obligation to the tribes. Also, MDEQ administers several state laws not applicable to BLM's decision. Thus, the tribes had to bring a separate suit against the state agency. The suit alleged violations of the state constitution and several state environmental laws.

Before IBLA or the state court could issue its ruling, ZMI and Pegasus complicated the situation even further by filing for bankruptcy in January 1998. On March 10, 1998, ZMI announced it no longer intended to proceed with the approved mine expansion. Instead, it planned to reclaim the mines and then permanently close them. At the time of the bankruptcy, \$30 million existed in financial assurance bonds for the two mine sites.

As a result of the bankruptcy, MDEQ and BLM assumed all responsibility for reclamation activities at the ZL mines. In doing so, the agencies were forced to reclaim the mine sites and address the pollution using the money available from the reclamation bond left by the bankrupt companies. At this time, the tribes submitted a reclamation plan to MDEQ and BLM for the agencies to consider. The tribes' reclamation plan was prepared outside of the agency process. The tribes prepared the plan in order to indicate to the agencies that better reclamation options existed than those options identified by the agencies. The tribes' reclamation plan advocated full reclamation of the Island Mountains to their pre mining condition.

In June 1998, MDEQ and BLM selected a reclamation alternative that had been analyzed in 1996 before expansion of the mine had been authorized. This alternative required mitigation measures, such as AMD collection and soil cover. To fund the reclamation, the agencies would use the \$30 million in funds from ZMI's established reclamation bond for the two mines. According to the tribes, the alternative did not adequately address protection of groundwater or reclamation of acid generating pit walls. The tribes asserted that a new SEIS of the site should be completed to address the proposed expansion and the necessary reclamation at the ZL mines.

Before BLM and MDEQ could implement the selected reclamation measures, IBLA issued its ruling in the long pending appeal of the tribes' challenge to the 1996 EIS authorizing expansion of the ZL mines. IBLA found that BLM had violated its trust obligations to the tribe when it approved an EIS that failed to adequately address groundwater flows in the vicinity of the mines. Without such information, IBLA held

that the EIS did not provide the analysis of possible impacts on groundwater necessary to make a reasoned choice among the alternatives for reclamation of the mines.

BLM had an obligation under the National Environmental Policy Act (NEPA) either to obtain the necessary information on groundwater or to have made it clear that such material was lacking. By having failed to do so, BLM had failed to meet its obligations under NEPA. IBLA also found that, by failing to meet its NEPA obligations, BLM also had failed to protect the public lands from «unnecessary or undue degradation» as it is required to do under its trust obligations. Moreover, IBLA noted that mere compliance with environmental statutes did not fulfill BLM's trust obligations. To fulfill such obligations, BLM must consult with the tribes in making its EIS decision. On remand, IBLA required BLM to properly consult with the tribe regarding the reclamation of the ZL mines.

2.2 The Multiple Accounts Analysis

Following the IBLA decision concerning proper consultation, MDEQ and BLM first attempted several discussions with the tribes. MDEQ and BLM also held numerous meetings with the Fort Belknap Indian Community Council, BIA, and EPA. During these meetings, the tribes submitted to BLM their alternative reclamation plan for consideration.

With little or no progress made after months of meetings, Robertson Geoconsultants, a subcontractor of the firm hired by the agencies to oversee reclamation, suggested using the Multiple Assessments Analysis (MAA) process. The subcontractor had developed and used this process at other sites. In July 1999, Robertson presented the MAA to the group and there was tentative agreement to try it. The parties agreed to form a technical working group consisting of MDEQ, BLM, and the tribes as represented by the Fort Belknap Indian Community Council, the Center for Science in Citizen participation (CSP²) as technical advisors to the tribes, Spectrum Engineering Inc., and EPA. The technical working group would evaluate existing conditions and potential reclamation and water management alternatives for the site. After several meetings, the technical working group agreed in 1999 to use the MAA process to evaluate the various alternatives for reclamation.

During discussion of the MAA, the Fort Belknap Indian Council demanded that the agencies prepare a supplemental EIS (SEIS) for the reclamation of the mines. In March 2000, the agencies agreed to complete a SEIS, and the Fort Belknap Indian Council was invited to participate as a cooperating agency in the completion of the SEIS. The Fort Belknap Indian Council agreed to contribute to the preparation of the new SEIS as a participating tribal government.

On April 25, 2000, the tribes also initiated a long planned suit against BLM, BIA and Public Health Services for violation of their trust responsibilities by failing to properly protect the tribe from the mining impacts from the ZL mines. The tribes sought to compel BLM and the other defendants to reclaim the ZL mines fully. Despite the suit against BLM, the tribes continued to participate in the technical working group and the U.S. Department of Justice allowed the BLM and MDEQ to continue to engage with the tribes.

According to a BLM representative involved in the reclamation of the ZL mines, the tribes' suit «soured the MAA process» in some respects for BLM and the other government parties within the technical working group. The agencies saw the tribes' suit as an indication that the tribal participation in the MAA process was not in good faith because, as BLM alleged, they were suing over a decision that had not yet been made. Nevertheless, the technical working group continued work on the MAA, and MDEQ and BLM went forward with the SEIS.

MDEQ and BLM describe the MAA as «an interactive process of considering possible reclamation measures under a central theme, evaluating the effectiveness of the reclamation alternatives, and then revising the alternatives to optimize their effectiveness.» Generally, the MAA process served as a framework under which the technical group selected the most suitable or advantageous alternatives for reclamation purposes. This involved three basic steps:

- Identifying the impacts, benefits, and costs, to be included in the evaluation;
- Quantifying the benefits and costs; and
- Assessing the combined or accumulated impacts for each alternative and comparing these with the other alternatives to develop a preference list of the alternatives.

Although characterized as a cost/benefit analysis, the MAA process focused on more than just the economic costs and benefits of each possible alternative. The MAA for both mines identifies four broad categories of issues, called «accounts.» The accounts included: a technical account, a project economic account, an environmental account, and a socio economic account. Each of these accounts or issues, incorporated sub accounts. Sub accounts were defined as any benefit or cost associated with any of the possible alternatives, and they essentially served as the issue categories for each of the concerns or issues offered by the stakeholders. For example, if a stakeholder group, such as the tribes, had concerns regarding the surface water quality of the surrounding region and its reclamation, a sub account was created under the environmental account.

The technical working group further organized sub accounts into one or more indicators that measure, either qualitatively or quantitatively, the impact of each alternative. The indicator value served as a method of providing a clear and understandable method of gauging the possible impacts under each sub account. For example, after assigning the sub account on surface water quality to the environmental account, an indicator or several indicators were defined to measure the impacts of each alternative.

In January 2001, after evaluating the alternatives at the two ZL mine sites over two years, the technical working group met to finalize the preferred alternatives for each site. The agencies identified the alternative known as Z6 as their preferred alternative for the reclamation of the Zortman Mine. This alternative provided for re-vegetating disturbed areas, isolation or control of toxic or deleterious materials, and covering virtually all of the sulfide portions of the mine pit high walls with backfill. The alternative would not require additional backfill in drainages that flow towards the watersheds that provide the tribes' water resources.

For reclamation of the Landusky site, MDEQ and BLM selected the alternative known as L4 as their preference. The L4 alternative calls for re-vegetation of disturbed areas, isolation or control of toxic or deleterious materials, and covering the majority of the sulfide portions of the mine pit high walls with backfill or rubble slopes. This alternative would also use all readily available, non acid generating material as backfill in the mine pits. Under the L4 alternative, a leach pad obstructing drainage would be removed.

The Fort Belknap Indian Council, however, expressed a preference for the L5 alternative for the Landusky site and asked for an explanation of the agencies' choice of L4 over L5. In addition to those reclamation measures identified in the L4 alternative, the L5 alternative would provide additional backfill to cover sulfidic high walls with mined material currently within the drainage blocked by the leach pad. MDEQ and BLM preferred not to fill in the high walls but to reduce their visual impact through high wall reduction and partial backfilling. The agencies claimed that the additional backfill contemplated in the L5 alternative would lead to the placement of additional AMD material at the head of the drainages that lead to the Fort Belknap Reservation.

After attempts to reconcile differences between alternative L5 and L4, the technical working group identified some changes to the L4 alternative. In February 2001, MDEQ and BLM agreed that the agencies' selected alternatives (L4 and Z6) would be identified in the SEIS as the preferred alternatives. The draft SEIS was published in April 2002, and the final SEIS was published in December 2001.

In May 2002, the final record of decision (ROD) was issued by MDEQ and BLM. In the ROD, MDEQ and BLM selected alternatives Z6 and L4 as the preferred alternatives for the ZL mines. The agencies acknowledged that full implementation of alternatives Z6 and L4 will require significant funding in addition to that available under ZMI's surety bond. This includes an additional \$5 million for work at the Zortman Mine. \$17.5 million for the Landusky Mine and \$11 million for the long-term water treatment trust fund. If these supplemental funds are not raised in two years, BLM and MDEQ have selected another set of reclamation alternatives that can be fully implemented with the funds available under the surety bond, but will require more long-term monitoring and maintenance.

2.3. Perspectives on the MAA and Other Legal Avenues for Participation

2.3.1 The tribes of the Fort Belknap Reservation

From the beginning of large scale development of the mines, traditional administrative avenues largely failed the tribes in their campaign to protect their natural resources and culture. For years, their warnings

about AMD were ignored. From the perspective of the tribes, MDEQ and BLM rarely, if ever, sought or considered the input of the tribes in the assessment of the ZL mines and their impact on the Island Mountains. Even when the tribes were successful in bringing these issues forward, the environmental and indigenous laws were interpreted in a way prejudicial to tribal interests or vindicated too late. The tribes believed that it was only through their use of litigation that they were able to insert themselves in the consultation process for reclamation of the ZL mines.

The tribes do not feel that the MAA process fulfilled the consultation requirement imposed by IBLA. Instead, they view the MAA process as a technical exercise that was useful in furthering the reclamation process and identifying more reclamation alternatives. As such, the tribes consider the MAA process, «better than nothing.»

Through the MAA, MDEQ and BLM at least made a realistic attempt to consider tribal concerns. The MAA also provided a framework for the tribes and the agencies to use in addressing the issues raised by each side. Under the framework, the concerns of each party received equal weight, and the end result of the MAA process did not require a consensus, which would have been difficult, if not impossible, to negotiate.

Nevertheless, the tribes would have preferred the use of a process that rose to what they considered proper consultation. For them, proper consultation would allow them some decision-making authority in selection of the reclamation alternatives for the ZL mines. The MAA process provides no guarantee that the tribes' concerns will be addressed in the reclamation plan. BLM and MDEQ retain final decision-making authority regarding the reclamation measures selected for the site.

Prior to the issuance of the final ROD, the tribes had agreed to work with the agencies to raise or find the remaining funds necessary to fund the reclamation activities identified in the preferred alternatives. The tribes now believe that the possibility of raising the funds for the preferred alternatives in the ROD is jeopardized. From their perspective, no Senator or Representative would fund the amount necessary to carry out the reclamation activities under the preferred alternatives when the ROD provides for the use of less expensive, but supposedly adequate alternatives, if these funds can not be raised. Consequently the tribes are now preparing to bring suit with the goal of eliminating the back-up alternatives from the ROD.

2.3.2 MDEQ and BLM

As the agencies supervising the reclamation of the ZL mines, MDEQ and BLM identified three objectives that they wanted to achieve through the citizen participation process and the subsequent SEIS. The agencies wanted to: (1) implement the IBLA order to consult with the tribes; (2) determine an acceptable reclamation plan for the mines considering the shortfall in funding; and (3) continue reclamation work at the ZL mines while consulting with the tribes.

From the agencies' perspective, the MAA process allowed them to achieve each of these objectives in what it considered to be a relatively efficient manner. The true indicator of the agencies' response to the MAA process is that they would be willing to use it again in the future for similar technical reclamation issues.

When the agencies implemented the MAA process, they recognized that it would allow the parties to reach a consensus on the impacts of a particular action while allowing the parties the ability to disagree with the ultimate decisions. The agencies considered such a result a success. The MAA process actually exceeded their expectations because while the agencies recognized that the MAA might result in consensus on the impacts, they did not expect that the MAA process would result in the relative consensus among the technical working group on the preferred reclamation alternatives.

MDEQ and BLM also considered the MAA process to be a more efficient method for consulting with the public than the traditional notice-and-comment procedures because while the process took many years, the end product was more agreeable to the parties. In other words, the MAA process produced a better reclamation plan than BLM expected. Given applicable mining and environmental laws and the amount of available funding, BLM claimed that the tribes' preferred alternative calling for reclamation and remediation to a pre-mining state was not desirable for several reasons, including the impact that such

a reclamation might have on tribal resources. According to the agencies, the MAA process allowed the technical working group to bypass this conflict, and thereby avoid a disagreement that could have possibly paralyzed a traditional citizen participation process. In short, the MAA process allowed the parties to the technical working group «to agree to disagree» and move forward to consideration of other alternatives or other issues.

MDEQ and BLM also favored the MAA process because it allowed the parties to the technical working group to prioritize their choices for reclamation work. Under the MAA, reclamation alternatives with high priority were to be funded first, and reclamation alternatives with lower priority were to be funded only after the high priority alternatives. Thus, MAA allowed the agencies to take into account the funding shortfall in selecting the preferred alternative. The MAA process also permitted evaluation of environmental performance independent of cost. Finally, interim reclamation work could continue at the ZL mines during the consultations since a process existed for technical working group members to agree on these measures while continuing to negotiate other matters.

MDEQ and BLM also believe that the MAA can help improve and accelerate the EIS process. Alternatives identified through the MAA process can be plugged into an EIS. Working with stakeholders through the technical working group provides greater substantive involvement than the public meetings or advisory groups. According to the agencies, the MAA process allowed the tribes to fully voice their concerns about the impacts of the ZL mines and the potential reclamation measures. The MAA process also required the tribes' input to be accorded the same weight and value as those of the other parties to the process.

In a presentation outlining the MAA process, several members of the MAA technical working group, including the tribes' technical consultant, the agencies' technical consultant, and a BLM manager, suggest that the MAA served many purposes in addressing the reclamation alternatives at the ZL mines. These purposes include:

- identifying information gaps and data needs that required development of scientific studies;
- providing a framework for all stakeholders to identify and discuss issues of importance and reclamation cost for the reclamation alternatives;
- clearly identifying measures common to all alternatives and allowing for continuous interim reclamation throughout the evaluation process;
- providing an objective and simplified basis on which sensitive issues could be discussed;
- providing a defensible and transparent tool with which decision makers could evaluate the positive and negative impacts of available alternatives; and
- creating a framework for writing the supplemental environmental impact statement.

3. Conclusions

The story of citizen participation at the ZL mines is far from over as the result of the lawsuit brought forward by the tribes is pending and new litigation is in process.

At this point in time, the frustration of the tribes with the EIA and other formal participatory mechanisms is very apparent. The use of the MAA framework for incorporating the tribes' concerns into the last round of the EIA process (*viz.* post-abandonment) did not result in a process or substantive outcome that satisfies current tribal leaders. Many factors may have contributed to their dissatisfaction, including the need to rely heavily on technical representatives in the consultations, the change in leadership of the tribe after conclusion of the MAA process, and the fact that the MAA framework can only guarantee consideration of the tribes' concerns, not their adoption.

Government officials, on the other hand, found the MAA framework extremely useful as a tool for public consultation and identifying and ranking alternatives for action. Their positive experience, plus the acknowledgment by the tribes that the MAA framework was a constructive technical tool, suggests that the MAA process may likely be used again in consultations with the public.

The EIA process throughout the history of the ZL mines, moreover, proved to be an ineffective mechanism for preventing one of the tribes' major concerns with the nearby mines — acid mine drainage. The potential for this problem was raised early and often by the tribes in their formal comments, giving

government regulators adequate notice to take appropriate actions to prevent the damage. Nevertheless, government regulators failed to put in place adequate mechanisms in the permit or ROD that would preclude the actual mining of sulfide ore.

The citizen suit process provided mixed results for the tribes. While they were able to win one significant judgment against the company providing funds for water treatment, reclamation issues could not be addressed since these issues were not within the scope of the federal and state water laws. The reclamation claims were pending before IBLA and in other courts. And when the tribes tried to enforce the guarantees provided under laws specifically designed to protect indigenous rights, it became apparent that federal government had no substantive obligation to protect their interests over those of the mining company.

Even though the tribes were able to enforce their right to be consulted in the EIA process, they have not yet been properly consulted regarding mining and reclamation at the ZL mines according to tribal representatives.

The experience of the tribes at the ZL mines also highlights the insufficiency of the bonding process. Even though the company's financial assurance eventually provided upwards of 70 million dollars for addressing the environmental legacy created by its operations, more than half of this amount has already been expended on water treatment and implementation of the reclamation alternatives currently under discussion will substantially exceed the remainder. And with the company in bankruptcy, the only recourse left to the tribes is lobbying Congress for funding. With less costly back-up alternatives included in the ROD, the likelihood of the tribes being able to raise funds for the preferred alternatives is now in question. Since these back-up alternatives are the reclamation options that BLM and MDEQ proposed at the beginning of the process, the tribes may end up basically «back to square on

IV. MEXICO: MINERA SAN XAVIER AND MARIQUITA MINE

IV.a. MINERA SAN XAVIER

1. General information

1.1 Background

In November 1996, Minera San Xavier S.A. de C.V. started exploration near the town of Cerro de San Pedro, 20 km northeast of San Luis Potosi, with 100 drill holes measuring a total of 20,000 km and affecting an area of 129,083 km². This phase of the exploration ended in September 1997. The company calculated that its investment was approximately \$30 million.

The project has reserves of 77 million tons (67gr./ton of gold and 25 gr/ton of silver). It operates with a capacity of 32,000 ton/day, using conventional open pit mining and lixiviation. It involves a series of projects: access roads, office facilities, external communications, and construction of warehouses for the maintenance of equipment and vehicles, neighboring offices, warehouses to store explosives and blasting powder, and power lines (10km).

On August 1, 1997 Minera San Xavier presented a general Environmental Impact Statement (Manifestación de Impacto Ambiental (MIA)) with code 24SL97M0004, to the federal delegation of the then Secretaría de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP).⁸¹ They also requested to change the use of 360,400-00 hectares of common land in the Palma de la Cruz, Cerro de San Pedro, Cuesta de Campa ejidos and other private properties. The reason for this request is that an official classification for the use of land in the area does not exist. The Instituto Nacional de Estadística Geografía e Informática (INEG) randomly defines it as «forest use or pasture land for the breeding of cattle and collective use.» Minera San Xavier requested to change the use of land to «others,» category and use it for the development of an industrial mining complex.

1.2 Environmental Impact Assessment Process

In August 1997, Minera San Xavier started the procedure to process the environmental impact statement (MIA) in accordance with Articles 6, 9 and 10 of the regulation of the Ley General del Equilibrio Ecológico y la Protección al Ambiente (R-LGEEPA-IA) on environmental impact and the corresponding detailed study of the risks, as specified by Article 30 of the LGEEPA. That same month, Minera San Xavier presented a preventive report for the construction of two blasting material storage facilities in the mining district of Cerro San Pedro, two km away from the Cerro de San Pedro town, based on Articles 7 and 8 of R-LGEEPA-IA.

In September 1997, the federal delegation requested that the information presented in the preventive report be made more specific and expanded. A month later, Minera San Xavier S.A. de C.V. continued with the MIA process before the federal delegation of SEMARNAP in the state of San Luis Potosí (S.L.P.) and requested authorization for the construction of the Cerro San Pedro mining-metallurgic project near the town with the same name. For this purpose, the company presented a detailed study of the risks and the corresponding studies to define and establish the subsoil components near and below the buildings of the town of San Pedro:

- Consideration of the impact of explosives on historic buildings.
- Analysis of the undesirable effects when using explosives for blasting rocks.
- Resistance report to determine the existence of any underground works under the San Pedro Temple.
- A report on the seismic tomography around the San Pedro Temple.
- Construction project of the blasting material storage facility and its access road.

81 Currently, Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT).

The federal delegation of the SEMARNAP in S.L.P, in October 1997, sent the MIA to the Dirección General de Ordenamiento Ecológico e Impacto Ambiental (DGOEIA), at the central offices of the Instituto Nacional de Ecología (INE). Two weeks later the DGOEIA requested the technical opinion from the Dirección General de Materiales, Residuos y Actividades Riesgosas.

Likewise, in November of the same year, the federal delegation requested the technical opinion of Comisión Nacional del Agua (CNA) with regards to the environmental impact assessment (EIA) on the use of water in the operation of the open pit mine, the treatment by lixiviation, and the acquisition of rights of Minera San Xavier for the use and extraction of water. The CNA responded that they needed additional information from the proponent. Therefore, in December 1997, the DGOEIA once again requested additional technical information (25 points) from the proponent which was to be presented within three months.

Due to the importance and controversial nature of this project, in January 1998, the Government of the Estado de S.L.P. convened an academic technical committee, led by the Universidad Autónoma de S.L.P. (UASLP), to analyze the project and its implications.

In February 1998, the Dirección de Administración y Riesgos Ambientales reported to the DGOEIA that it had no objections to the Cerro San Pedro project, provided they keep to their terms. Again in July 1998, the DGOEIA requested more information from Minera San Xavier in order to resume the assessment of the project, and the company responded in August presenting the additional required information. The federal delegation sent the information to the Universidad Autónoma de S.L.P. for a technical verdict 15 days later.

A year later, on February 26, 1999, the INE through the DGOEIA, gave Minera San Xavier the authorization to change the use of the land conditionally and, keeping to the terms the authority set out, for a period of 12 years.

1.3 Conflict

The company's view is that the project represents a source for stable jobs, decent salaries, health services, roads and transport, training, reforestation and environmental protection for the community because measures would be taken to prevent wastewater discharges: the area would be reforested; the processes would abide by international control regulations; and advanced techniques would be used to protect the buildings and the roads in the area.

However, several people and civil organizations believe that this project will have important environmental impacts (such as the wasting of water and the loss of flora and fauna species protected by law), cultural impacts (damage to buildings of historic value and individual homes) and economical impacts (exploitation of workers without equitable distribution of the wealth).

1.4 The key players

The key players involved are:

- Minera San Xavier S.A. de C.V.: a subsidiary company of CLAMIS GOLD LTD. Y METALLICA Resources Inc.
- Delegación Federal de SEMARNAT in San Luis Potosi: representing the federal environmental authority in the State.
- INE-Dirección General de Ordenamiento Ecológico e Impacto Ambiental: responsible for the authorization of environmental impact matters.
- Comisión Nacional del Agua (CNA): responsible for the technical opinions on water matters.
- Instituto Nacional de Antropología e Historia (INAH): responsible for the care of the works and monuments of a historic and cultural value.
- Ejidos Palma de la Cruz, Cerro San Pedro y Cuesta de Campa: affected directly by the project.
- Universidad Autónoma de San Luis Potosí (UASLP): in charge of the technical academic committee that analyzes the impacts and risks of the project.
- Civil Society: inhabitants of the Cerro de San Pedro town; Coalición de Grupos de Defensa Ciudadana; Educación y Defensa Ambiental A.C.; Sergio Serrano Soriano; María Esther Abaunza Hurtado; and Beatriz Septien.

2. Experiences with citizen participation

In October 1997, the federal delegation informed the Constitutional Governor of S.L.P. of the Minera San Xavier project; the obligation to make the corresponding records available to civil society (in accordance with Article 34 of the LGEEPA); the possibility of carrying out a public information meeting; and the process for consultation.

Likewise, the federal delegation of SEMARNAP responded to in particular individuals (to Sergio Serrano Soriano, for example) of the request to make the MIA available to the State, informing them that the statement can be consulted starting November 3, 1997 at the offices of that delegation. The same notice was given to Minera San Xavier in order for them to indicate what information can be of public domain, without affecting industrial and mercantile property rights.

The mining company responded that all the information could be made public and consulted because such disclose would not contravene industrial or mercantile property rights.

In this context, the federal delegation published a press report, dated October 31st 1997, about the public consultation process established in environmental legislation and disclosing that the MIA file presented by Minera San Xavier for the Cerro San Pedro project will be available to the public in the offices of the federal delegation of SEMARNAP starting November 3rd of the same year.

In December 1997, a public information meeting took place based on Article 34, (III) of the LGEEPA, where various representatives of civil society stated their opinions and questions. Later on, the federal delegation sent DGOEIA of the INE the results of the public consultation, so that they were included in the file.

Also, the government from the State of San Luis Potosí, decided to form a technical academic committee, lead by the UASLP, to analyze the project starting January 1998. In April of that same year, the Coalición de Grupo de Defensa Ciudadana sent a statement to INE in which it outlined that an alternative opinion is required on the MIA, since the one presented by Minera San Xavier did not offer sufficient technical arguments for a reliable environmental impact assessment.

The main issues and recommendations made by civil society and the technical academic committee were:

- Scenarios and commitments: convene an ad hoc committee for the follow-up of the agreements and commitments, as well as for quality control mechanisms; require security instruments and guarantees to assure the restoration and maintenance of the project area and its surrounding area.
- Basic characterization: resolve the incongruities with the surface of the land involved directly or indirectly in the project; study bioavailability of the metals found in the dust generated from a mine or land, using animals for experimentation; treatment of metals, prevention and control of drainages; environmental and health characterization studies.
- Impacts and risks related to the aquifers, wells and limited use of authorized water; waterproof patios and troughs; control and restore contamination in the aquifers.
- Biotic impacts: complete plan for biotic restoration with prevention measures, reduction, rehabilitation and compensation for the impacts; a botanical garden; and a buffer zone surrounding the project.
- Risks derived from managing dangerous elements: contingency program for cyanide and metals contamination of the soil and air; detailed program for medical emergencies; monitoring program and attention to the contingencies for cyanide and metals contamination of the soil and air.
- Dust and contaminants of the atmosphere: monitoring system of the gases that emanate from the laboratory, smelter and retort areas.
- Other impacts and risks: protocol for environmental and biological studies under the clear specifications of this document; biological monitoring, etc.
- Quality control: quality control program before beginning the construction; certification system of the laboratory.
- Closing plan.
- Alternatives outlined for the program: maintenance of the area of the project until there are no risks and the biotic recovery has been a success.

During 1998, the INE received communications (such as those from María Esther Abaunza Hurtado and Beatriz Septién), asking the environmental authority to intervene to ensure a proper environmental impact assessment. These letters were handled by the DGOEIA which informed the senders of the process through which the Cerro San Pedro project was reviewed. In June 1998, the Coalición de Grupos de Defensa Ciudadana informed the representative of the United Nations Environmental Program (UNEP) in Mexico about what they considered serious impacts and risks of the Cerro San Pedro project, from an ecological, cultural, historical juridical, social and religious perspective.

In April 1999 the federal delegation informed this coalition that it can conditionally process the certified copies of the authorization issued by the INE to Minera San Xavier on environmental impact regarding the request to change the use of the land, abiding by the terms recommended by the authority and a validity of 12 years to carry out the project.

In January 2001, María Luciana Mata García filed an appeal opposing the authorization granted by the INE to Minera San Xavier based on Article 84 of the Ley Federal de Procedimiento Administrativo on environmental matters.

3. Main results

- Through DGOEIA, INE provided the authorization to Minera San Xavier on environmental impact matters for the change of land use, in a conditioned manner and abiding by the terms established by the authority, for a term of 12 years.
- Minera San Xavier is obliged to inform the authority of any changes in the project, to process any other authorization and to observe the established conditions.
- The design of the pit used in the project respects the limit of protection established by the Instituto Nacional de Antropología e Historia (INAH) and the demolition would occur in accordance with a special design to guarantee the safety of the town of Cerro de San Pedro.
- A security payment has been made to cover any damages caused by the mining company.
- Minera San Xavier prepared a work program to stabilize and restore and stabilizing the San Pedro Temple and to monitor the vibrations that may affect it.
- The company has promised to build a botanical garden with endemic species which are threatened or in danger of extinction.
- Systems to recover dust from the drilling equipment have been implemented.
- The use and storage of explosives will take place under the conditions established by the Secretaría de Defensa Nacional.
- Once the project has been concluded, Minera San Xavier will remain in the area for two more years in order to stabilize the bank or pits, neutralize all the residual reactions from the cyanide and reforest the affected areas, all these commitments were established in the permits and agreements with the competent authorities.
- Minera SanXavier calculates an additional investment of US\$70 million for all the instrumentation of new infrastructure, required to comply with obligations set forth in the authorization with regard to environmental impact.

IV.b. MINA MARIQUITA

1. General information

1.1 Background

Sierra Mariquita, is located in the State of Sonora, in the north of Mexico's national territory, and has a great tradition of mining. In fact, the oldest copper mine in the country is found in the vicinity of Cananea, a town that has always depended on mining.

Due to the favorable climate and geographical conditions of Sierra Mariquita, in 1987 the Observatorio Astronómico Guillermo Haro Del Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE) was set up in the area.

A small tunnel mine near the observatory has existed for a long time and has never been a problem for the operation of the observatory. According to INAOE, since 1992, an agreement has existed with the Minera María to report on any modifications or expansions. However, in 1994, three km from the observatory, the construction of a mining-metallurgic complex for the extraction of copper reserves in the denominated Mariquita Mine was initiated, using conventional open pit mining and lixiviation. The mining activity directly affected the normal operations of the observatory.

Due to the lack of regulations that would allow protection of the astronomy activity, the conflict was resolved in an alternative way under a cooperation scheme not provided for by legislation: negotiation.

1.2 Environmental impact assessment process

On May 23rd 1994, Minera María presented the Dirección de Normatividad Ambiental del INE with an environmental impact statement (MIA) in the general modality, Code 94M0018, in accordance with Articles 28, 29 and 34 of the Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA) and 5 and 20 of regulations on environmental impact. However, the statement did not show the existence of the observatory, which is located only 3 km away from the mine and had been operating for seven years.

When the employees of INAOE found out about the project and the serious omission in the MIA, they presented INE their concern with the mining project – that it would affect the observatory due to vibrations, emission of dust and light produced by the mine.

The mining company should have obtained an authorization from the Comisión Nacional del Agua (C.N.A.) and from what was then the Secretaría de Agricultura y Recursos Hidráulicos (S.A.R.H.) for the supply of water. Also it should have obtained the permit from the municipal authority for the disposal of solid wastes, and from the Secretaría de la Defensa Nacional (SEDENA) for the storage and handling of explosives.

The INE authorized the project for 10 years, granting Minera María S.A. de C.V. the right to develop and operate a project called Mariquita, for exploration, extraction and recovery of copper, which would be subject to mitigation measures established in the authorization as conditions.

It is necessary to highlight that, although legislation does not foresee protection measures for astronomic activity, the INE included a condition in the authorization that would permit Mina Mariquita to operate, specifying that their activity should not affect the normal operation of the Observatorio Astronómico Guillermo Haro.

1.3 Conflict

In order to operate legally, Minera María needed to obtain an authorization from the Instituto Nacional de Ecología (INE) on environmental impact matters for which it presented an MIA to the Dirección General de Ordenamiento Ecológico e Impacto Ambiental (DGOEIA). However, when they presented their MIA, the existence of the observatory was left out, and they avoided informing the community of the project.

The employees of INAOE, the entity responsible of the observatory, found out about the project in a casual manner. Immediately they presented INE with the reasons why the project did not comply with the law, namely, the problems that the mining project would cause for the observatory, the emission of dust, and the light coming from the mine.

On the other hand, the potential environment impacts generated movements and protests, highlighting the problem of the community of Cananea and the State of Sonora with the mining industry and excessive centralization of planning and decisionmaking.

Therefore, originally, two opposed positions existed: one defended the observatory, while the other defended the Mariquita Mine.

Due to the existing legal void caused by the absence of specific legislation for the protection of astronomic activity, as well as the lack of similar prior experiences, it was necessary to find alternative mechanisms that would allow the conflict to be solved. To do this, it was essential to work under a cooperation scheme, which in this particular case was negotiation.

1.4 Key players

- Minera María S.A of C.V.: member of the Frisco Group and responsible for the Mina Mariquita project.
- Delegación Federal de SEMARNAT in San Luis Potosí: representative of the federal environmental authority in the State.
- INE-Dirección General de Ordenamiento Ecológico e Impacto Ambiental: responsible for granting the environmental impact authorization.
- Observatorio Astronómico Guillermo Haro del Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE).
- Civil society: inhabitants of Cananea; Margarita Otis, local and national newspapers.

2. Experiences of the mine with citizen participation

Given that the population of Cananea and the INAOE were lacking information on the Mina Mariquita project, and the MIA presented to the INE by the mining company omitted mentioning the existence of the Observatorio Astronómico Guillermo Haro, the representatives of the observatory and some independent ecologists of Cananea began a press campaign denouncing what had occurred and in defense of the observatory.

On one hand, the Mariquita mine was seeking the authorization to operate and presented their MIA with incomplete information, omitting the existence of the Observatorio Guillermo Haro; on the other hand, INAOE intended to reject the authorization because the observatory would be affected, with the same as some independent ecologists that sought to avoid the possible risks and environmental impacts that the mining project may cause. As both positions opposed each other, apparently there could not be a consensus between the parties in conflict.

At the same time, the controversy brought on by ecological issues generated mobilizations and protests, highlighting the problem the community of Cananea and the State of Sonora had with the mining industry and the excessive centralization of planning and decision-making. Margarita Otis filed an appeal of nonconformity with respect to the authorization of INE, which was dismissed by the administrative authority.

Misunderstandings and the lack of communication between the parties were the main source for conflict. The press campaign against the mining company was its worst enemy. In words of Moreno Turrent, engineer and director of ecology of the Grupo Frisco (owners of the María Mine):

The conflict was caused because the environmental impact statement (MIA) did not take the observatory into account. We did not suspect that the activities of the Mariquita Mine would affect it; the lack of communication was the cause of the conflict or, rather bad communication... After, a press campaign was started against the Mariquita project, and confidential information was used and distorted.⁸²

⁸² Enrique Sienfield, Investment Projects and Environmental Conflicts, SEMARNAP– PNUD, México D.F., 1999, p. 63.

The role INE played as conciliator in the negotiating process was crucial to resolution of the conflict. The first step was to establish a methodology that would allow compliance with the requirements contained in the EIA resolution and adopt measures that would guarantee the compatibility of both activities, for which an agreement was signed between the parties. If an agreement could not be reached, the parties would have submitted the conflict to arbitration by INE.

A working group, composed of four members (two representatives of Minera María and the other two of INAOE), was convened to make the pertinent decisions with the support of technical experts. Under this cooperation scheme, the parties analyzed the conflicts. The objective of the observatory was for the Mariquita Mine not to stop operating but to continue working normally; the interest of the mining company was to carry out their activities without harming the observatory. In this way the problem was reconsidered: how to develop both activities with neither one being affected?

With this being the situation, three impact areas were defined: vibrations due to explosions that could affect the telescope (independent from the structure of the building); light contamination and the emission of dust.

3. Results

- A dust collector was added to avoid the dust and particles generated from the mine from interfering with the operations of the observatory.
- The intensity of the light from the facilities of the mine should not interfere with the observatory.
- Both surface and ground water quality must not be affected.
- At the end of its activities, the mining company would neutralize the leach pile material.
- A plan would be carried to restore the natural processes of the area and a comprehensive program of environmental protection.
- As a compensatory measure for irreversible impacts that the project may cause, Minera María would establish a fund, from annual contributions, to fund research projects and conservation actions in the areas or ecosystems of the region.

The conditions established by the INE in an effort for the observatory's activities not to be affected, opened the door for a broad interpretation of the environmental impact concept in its social-cultural aspect (which included scientific activity), which allowed the use of alternative mechanisms to resolve the conflict.

V. PERU: ANTAMINA MINING COMPANY AND THE TAMBOGRANDE PROJECT

V.a. ANTAMINA MINING COMPANY

1. General Information

1.1 Introduction

The case of the Antamina Mining Company (CMA) is one of the most important with regards to citizen participation. It not only shows us how the company complies with current legislation, but the new methods of voluntary participation, such as that of the people of the San Marcos community.

Although during the first two years of the operations there was only a formal and brief contact between the communities and the CMA, the Comité de Medio Ambiente de San Marcos constantly met with representatives of the environment, health and security areas of the mining company to discuss environmental issues concerning the project. At present, they are engaging in a dialogue in different ways and on different levels. We hope that in this case the results of the environmental impact study will not be overly optimistic, in comparison with reality.

Besides the Comité de la Comunidad de San Marcos, three more committees have been set up in the communities of Huarmey, Ayash and Carhuayoc, which upon the request of the CMA will receive legal advice directly from the Peruvian Society for Environmental Law (Sociedad Peruana de Derecho Ambiental (SPDA)) as part of a project to be started no later than the end of 2003.

1.2 Location of the Antamina Mine

The mine is 4,800 meters above sea level in the District of San Marcos, Province of Huari, Department of Ancash, and reaches the Peruvian coast, specifically the Port of Huarmey, in the Department of Ancash.

1.3 Geographical description

The poli-metallic deposit of Antamina is found in the Callejón de Conchucos, between 4,200 and 4,800 meters above sea level. It is on the eastern flank of the western portion of the Cordillera de los Andes, in the north central Peru, in the Department of Ancash, 385 km northeast of Lima.

The Cordillera is a mountainous and uneven area, where agriculture is limited to the cultivation of corn and potatoes in the small Andean low altitude valleys. In the area of the mining project, economic activity is mainly concentrated on the breeding of cattle and small scale agriculture .

The mine is located on the headwaters of two small gorges (Ayash and Canrash) that flow into the Puchca River. This river is part of the Alto Amazonas basin. The mine deposit extends over two eco-regions: the mountain range area between 2,000 and 3,800 meters above sea level, which is characterized for its forests; and the Puna area (high cold dry Andean plateau), which has extensive pastures.

1.4 Operational circuits of the mine

The mine duct has a course of a little more than 300 km, starting from the mine to its final destination in the Port of Huarmey. The new port facilities are being built to export the mineral after the concentration process, which it has to go through. CMA does not have an associated copper smelting process.

With regards to the condition of the project in the mining area, the construction of a primary crushing plant is nearly finished (98% as of January 15th 2001). Also, the transportation belt is at the testing stage, as is the concentration plant. The mine began operations in June 2001.

The fresh water dam (DAM D) has been concluded, and the first stage of the tailings dam, with a storage capacity of 546 million metric tons, is nearly finished. The mine duct (301.7 km) is nearly finished. It will transport copper and zinc, which will be mixed with water and transported independently to the port of Huarmey.

The port is about 80% complete, while the ground installations are about 95% finished. In relation to the mineral treatment in the port of Huarmey, the minerals will be separated from the water through special filters. The mineral recovered will be deposited in a storage building for concentrates, and after the corresponding technical treatment, will be transported to the cargo ships via the transportation belts.

It must be emphasized that the storage installations of the mineral concentrates and the transportation belt are totally covered.

1.5 History of the mine

At the start of the second half of the 19th Century, mining activities took place on a small scale in areas near the Antamina deposit. The first references of an early mining activity in this area (Taco and Rosa Mines) appear in *El Perú*, a book by Antonio Raimondi, published in 1860. The mining activity was sporadic until the middle of the 20th Century.

In 1952, Cerro de Pasco Corporation obtained the rights over different mining concessions in Antamina. The area was sporadically explored in the decades of the fifties and sixties. During this period, more than 5,000 m of underground work was developed, and 3,000 underground and superficial drillings were made.

In 1973, Minero Perú and Geomín (a Rumanian company) signed a shared risk business contract, in order to carry out work that lead to the rehabilitation of more than 3,200 m of work, the carrying out of more than 11,000 m of diamond drillings, and the excavation of 3, 200 m of trenches, with the purpose of a geochemical sampling of the surface.

Although this shared-risk company carried out their exploration and extraction work, the development of a commercial mining operation was slow. As a result, in 1990, the government organized a public bidding process for the concession of the property.

1.6 Social and environmental problems

The social effects of the mining project in the region are relocation, immigration, an increase in the demand for housing, and more vehicle traffic. Improvements in schools and health centres, more job opportunities, more housing projects, and an improvement in the infrastructure level and social services are also being sought.

The families living in and around the areas of the project may be affected by the loss of agricultural and pasture land. These families would be relocated to similar and better areas, in accordance with the CMA policy and criteria of the World Bank.

While working on the relocation plan, the CMA identified and consulted with all the families that may be affected by the location of the project, as well as with the corresponding normative entities. The global objective of the relocation plan is to provide improved housing and services to families.

The Comité de Medio Ambiente de San Marcos, established in 1999 as a result of the demands of the people concerning possible environmental impacts of the CMA, takes care of the complaints and demands of the population. However, it lacks the necessary information in order to process such information to competent authorities. Therefore, SPDA has been requested to present a training workshop on environmental legislation.

One of the problems of the CMA is the lack of a comprehensive strategy and development plan. Without these, the CMA carries the costs for the communities (although it assures that its policy is not subsidiary and protectionist), which sometimes distorts its relationship with them. However, the CMA is also developing sustainable programs.

One of the factors that increases mistrust in communities is the behavior of companies contracted by CMA at the beginning of the project, companies that, in order to solve environmental or other problems,

would negotiate with the people affected to determine an «adequate» compensation for the damages caused. These ways of solving conflicts have harmed the CMA. People aware of these agreements think all companies are the same and that nowadays CMA wants to continue solving their problems in this manner.

At the same time, we must take into account –as recognized by the Comité de Medio Ambiente de San Marcos and CMA- that the expectations of companies located in the influence area of the Antamina project were excessive. Although on many occasions these expectations were encouraged by CMA officials, because there was no communications plan, communities also exaggerated. The fact of finding themselves in a situation that does not cover all their expectations of work and development, added to bad background, and on some occasions the lack of information (or too technical information), generates an uneasiness amongst the local and regional population. To date, only demands have been made, and there is a lot of frustration in some social sectors.

The CMA bought land from the peasants of the San Marcos district to develop mining activities, promising to pay them and, if necessary, relocate the families and build them new houses. The purchase of communal land has generated the removal of the population, and now conflicts not only arise from relocation but also from delimitation of the areas purchased by the company.

In Huarmey, traditionally a fishing town, problems began in 1998, when Antamina started its activities without consulting the people nor informing them adequately of the environmental impacts from the construction of a mine duct and a pier to embark minerals. These are currently the main causes of the conflict.

Pollution of some farming areas and surrounding population center has also been detected, while in San Marcos, the company has not complied with the relocation of the village of Chipta-Pincullo. Besides, the EIA outlines that the residual and contaminated waters of the filtering process of ground minerals (copper and zinc) would be discharged into the sea, particularly when the Fenómeno del El Niño takes place.

Between May and June 2001, there were two regional strikes accusing the mining company of hiding information on the negative impacts it could cause. The civil society in Huarmey demanded an exhaustive and independent review of the EIA and respect for their rights to participate in the monitoring and vigilance of the environmental and social aspects of the mining activity .

2. Experiences with citizen participation

2.1 Obligatory process of citizen participation

Before undertaking any other new mining project, it is necessary to prepare and present an EIA to the Ministry of Energy and Mines (Ministerio de Energía y Minas (MEM)). The rules specify that an EIA be presented at a public hearing as part of the approval process. The mining activity related to transporting the mineral and the energy infrastructure must also have an EIA, which must be approved before starting the construction.

The environmental impact assessment process goes through the following phases: (1) *screening* or identification and classification; (2) *scoping* or preparation and analysis; (3) review and decision; and (4) control and follow-up.

The scoping phase is critical to incorporate the consultation mechanisms *ex-ante*, that is to say as part of the preparation of the EIA and not when it has already been concluded. Not even for the development of one of the most important mining projects in Peru (Antamina) has the stage of prior consultation been realized.⁸³

83 «Officials Compañía Minera Antamina recognized the company's error concerning prior and frequent consultation with key actors. According to one of their executives, ' We jumped into it, but we could have done better if we would have had a scoping process» (trad.). Corinne Schmidt, Citizen participation, environmental policy and transnational mining in Peru: a case study of the Antamina Mining Company. Thesis, from the University of John Hopkins, Baltimore, Maryland, 1999.

It is clear that the owner of the mining activity may be willing to comply with the consultation phase but cannot find the right way to do so. The key questions are: when and to what extent should consultation take place?

2.1.1 Permit and license requirements

Annex 2 of the Decreto Supremo No. 016-93-EM, the Regulation for Environmental Protection in the Mining-Metallurgic Activity, published May 1st 1993, contains a list of issues that should be covered by the EIA for any new mining operation. Furthermore, the MEM has published a guide on how to elaborate an EIA for mining activities, called «Guide to carry out environmental impact studies.»

The EIA must be prepared by consultant registered with the ministry and presented to MEM, so that the Dirección General de Minería (DGM) can approve it, with the consent of the Dirección General de Asuntos Ambientales (DGAA). KC-SVS is a consulting company registered with MEM. The Ministry has 45 days to review the EIA, within which time they should inform the applicant whether the study has been approved or if any observation needs to be corrected.

2.2 Regulations for citizen participation

The public hearing is programmed by the DGM, generally not long after presenting the EIA to the Ministry, and a written communication is sent to the mining company and to the consultants' representatives. A public notification of the hearing is published in the official newspaper *El Peruano* and in a regional newspaper, at least 12 days before the hearing.

To participate in the hearing, a written request should be sent to DGM, including the documents that prove the person represents a public, private or community organization, within eight days of publication in *El Peruano*. The questions made during the hearing and any additional questions on behalf of the DGM or DGAA are presented to the proponent of the project in writing in order to get a formal answer. From then on, a formal approval of the EIA is pronounced in the form of a Directorial Resolution, which may or may not make reference to the specific environmental obligations that the project should fulfill.

In general terms, the EIA should include a description of the project with details of the location, design and operation of the installations required, as well as the technical measures proposed to ensure the physical and chemical stability of the installations, the definite closure plan and future rehabilitation of the areas used for the project. It should also include a detailed description of the measures to be taken by the operator to eliminate all waste from the mine (waste rock, from tailings and process water).

Chapter IV of the «Guide to develop the environmental adaptation and management program MEM» (1995b) offers a detailed description of all the aspects of the project that should be considered in the closing plan.

2.3 Voluntary citizen participation process

2.3.1 Company's Initiative

The policy declaration on environmental, health and security issues of CMA points out the agreement of the company to responsibly administer resources and look after the well-being of the personnel and communities where it will operate. This policy sets out the environmental management principles that will rule the project.

The company is committed to citizen consultation and has a program to meet with local communities and environmental and communal organizations, as well as with government officials at a local regional and national level during the review of the EIA, the process to obtain the licenses, and the development of the mine. Likewise, the CMA started this process while developing baseline information for the EIA through formal and informal meetings, as well as during the definition of the scope of the project. Nevertheless, a prior consultation would have allowed the community a better understanding of the project.

2.3.2 The population

CMA has elaborated out a sustainable development plan for the community, with the main objective being of offering a structure to create better life conditions for the people and surrounding communities by generating the necessary income for their own development.

The rural communities (villages and towns) located within the area proposed for the extraction of the mine, are the following:

- Cotonga: a village located in the valley of the Callapo gorge and associated to the Cotonga mine.
- La Tranca: an agricultural village located in the valley of the Antamina gorge.
- Juproc (San Antonio): an agricultural village located in the valley of the Juporc gorge.
- Huancha (Canrash): an agricultural village located in the valley of the Canrash gorge.
- Ayash: an agricultural town located on the top part of the valley of the Ayash gorge.
- Carhuayoc: the largest town that includes a peasant community located in the valley of the Antamina gorge and has a certain communal infrastructure, such as a school and medical facility.

3. Conclusions

The public hearings are carried out during the review stage of the EIA, not when the proponent is developing the EIA. Although some meetings have taken place before the approval of an EIA, it is necessary to point out how important it is for the people to participate in the developing stage, mainly because of the experience and knowledge they have of the area where the negative environmental impacts may take place.

The main objective of the visit SPDA made to the Antamina Mine was to verify the state of community participation on environmental issues in the mining operations of CMA. During the visit to the community of Ayash, we verified the existence of the Comité de Medio Ambiente de San Marcos, which frequently has meetings with representatives of the environmental, health and security areas of the CMA, for a follow-up of the environmental matters concerning the project. We verified that CMA is in close communication with this committee, recognizing it as a valid and representative speaker for the community.

Throughout last year, the CMA has more frequently been generating space for dialogue with communities inside the area of influence of the project. This company holds information workshops for the people in order to allow them to understand the project and adequately participate in the environmental assessment process.

It should be noted that the presence of representatives of the Ministry of Energy and Mines and Ministry of Health has been limited. The people recognize that once the Antamina project was approved, both these Ministries were not concerned with explaining to communities its impacts on the area nor mentioning the benefits or problems it might originate. In accordance to regulations, the Ministry of Energy and Mines is obliged to monitor CMA facilities to verify if they are fulfilling their environmental obligations. However, during these years, the audit companies hired by the ministry have never had a dialogue with the townspeople on what their sense is with regards to the operations of CMA.

As mentioned before, a serious problem of the CMA is the lack of a comprehensive strategy to confront environmental and social issues that should be part of development plans. Even so, during the last year some of these gaps have been overcome. This company holds an area dedicated to community development, which in theory should be closely related to the Environmental, Health and Security areas, while both try to optimize communication between the CMA and the community, involving the government authorities and local authorities. However, in practice, many times one area ignores the work of the other area, and this causes them to confront one another and maintain different positions before the communities.

V.b. THE TAMBOGRANDE PROJECT

1. General Information

1.1 Introduction

The Tambogrande mining project is one of those cases that best represents the difficult relationship between mining activity and communities in Peru. This is because 72% of the economically active population of Tambogrande is dedicated to the agricultural activities. The mangos produced in this area represent 90% of national exports. Also, 150 thousand metric tons of lemons are produced a year, valued at US\$24 million.

The shortage of water is a problem for Tambogrande, in spite of the irrigation project established in the 1950s in the agricultural area of the valley. This issue concerns farmers, as the Manhattan Minerals company has not yet defined who has the concession of the mining operations in Tambogrande.

It seems that the Tambogrande project is a major project for the company at the global level and represents the opportunity to develop into a company of large magnitude and it involves a Canadian «junior» mining company. However, the majority of people have decided for the agricultural development of the region. That is why the Municipality of Tambogrande, in accordance with the Constitución Política del Perú and the citizen participation laws, convened a local consultation on June 2nd 2002, to find out the position of the people of the Tambogrande on the mining project. They found that 90% rejected it. In spite of this, on December 9th 2002, the Manhattan Sechura Cía. Minera S.A. presented INRENA in Lima and the Dirección Regional de Energía y Minas de Piura, the environmental impact study (EIA) for the Tambogrande mining project.

The Tambogrande case is recognized by public opinion as an emblematic example of the efforts and struggle of a local community to have recognized their right to consultation regarding extractive activities to be developed in the jurisdiction. This responds to a clear strengthening strategy by the local actor, who has searched at all times for the right to decide his own destiny following democratic rules and without affecting the governance of the current regime.

Therefore, as we analyze this project we will try to see how key actors organize themselves, interact and relate regarding two different objectives: mining and agriculture. Until now, it has not been demonstrated objectively whether both activities would be able to coexist peacefully.

1.2 Location of the mine

Tambogrande, located in the valley of San Lorenzo, includes an urban area on the right bank of the Piura River. Some land pertaining to three peasant communities and some woodland of carob beans are located on the left bank of the Piura River. The valley of San Lorenzo is the product of a great irrigation project; it is located in the north of Peru, in the department of Piura, province of Piura and Ayabaca and districts of Tambogrande and Las Lomas.

During the decade of the 1950s, these were uncultivated areas with dry forests and some small agricultural properties and ranches of limited economic impact.

The irrigation of San Lorenzo is the product of an effort started by the State in the middle of the 1950s, destined to extend the agricultural borders in the desert areas of Bajo Piura and obtain the supply of water for a total area of 50,000 hectares between the Piura, Chira and Chipillico Rivers.

The work on the diversion of water from the Quiroz River to the El Totoral gorge that leads to the Chipillico River was carried out between 1948 and 1953 and financed with US\$12.4 million contributed by the Peruvian State. On the other hand, the construction of the San Lorenzo reservoir and its canals to distribute water, carried out between 1948 and 1954 at a cost of US\$32.8 million, was financed 55% by the World Bank, 37% by the government of the United States, and 8% by the State.

This construction allowed the irrigation of more than 20,000 hectares located between the Chipillico River and the town of Tambogrande, and 51,000 hectares of Bajo Piura.

During the first half of the 1960s, 1,300 settlers were awarded land, with technical, social and economic assistance supported by the financing of the World Bank, the Agencia Internacional de Desarrollo (USAID), and at that time, Banco de Fomento Agropecuario del Perú. This project was conceived as a rural development pilot project in Latin America.

This gave rise to what is now the San Lorenzo Valley, with the peasant communities Apóstol San Juan Bautista de Loreto; Ignacio Tabara y Señor de los Milagros de Cruz de Caña on the left bank of the Piura River, was only recognized between 1988 and 1990.

At present the valley has an extension of 57,373 acres, with 42,186 acres under controlled irrigation, where approximately 7,988 farmers work producing fruit, such as mangos and bitter lemons (used in Ceviche), rice, cotton, wheat and corn.

1.3 Geographical description

The concessions of the project are located on the flat and hilly areas, on altitudes that vary between 60 m and 200 m above sea level. The access to the area of the project is through an asphalted road from the Port of Paita on the Pacific Ocean, going through the towns of Piura and Sullana. The area can also be accessed from Piura through the old Panamerican Highway that joins this town with Chulucanas. The distance between the town of Tambogrande and Piura is approximately 75km, and 104 km to the Port of Paita.

The Piura River flows only during the rainy season, approximately between February and March. This is why it was necessary to carry out a large investment to construct the San Lorenzo Dam and the rest of the irrigation that has allowed agricultural development in the valley, gaining terrain from the desert.

This is an area where the phenomenon of El Niño usually has a great impact, with strong winds (in Piura these can reach 17 km per hour), not much rain and limited availability of surface water. Therefore, there is a deficit of water for agriculture that not even the irrigation project can replace. In the short term, the only option to solve this problem is to find groundwater using wells.

Approximately 25,000 people live in the urban area, the capital of the district of Tambogrande, , and about 45,000 live in the rural area. The valley of San Lorenzo is one of the most productive of the Peruvian coast and arguably the most important fruit valley in the country. This valley has 57,373 hectares, of which 42,188 acres are under irrigation, 26,181 are cultivated and 15,057 grow fruit. The farmers of the valley produce 150,000 metric tons of lemons and 70,000 metric tons of mangos, these crops cover 96% of the fruit area. Seven processing plants for mango exist, three for lemon oil and 19 rice mills. At present there are approximately 2.6 million fruit trees, and an agricultural production that supplies the external and internal markets with a value of approximately US\$150 million a year. Agriculture is therefore, not only the main economic activity of the valley, but also the main source for work for the population (68% of the active economic population is dedicated to agriculture).

In Tambogrande, there has been no prior history of mining development and the population identifies strongly with agriculture.

1.4 Operation circuits

The Tambogrande mining project of the Canadian Manhattan Minerals Corp. Company, includes 97 mine concessions and occupies an area of approximately 87,000 hectares. The project is being carried out in the department of Piura and the major part is developed in the district of Tambogrande, province of Piura. This project has been divided into three sub-projects: the area of the Tambogrande-TG1 concession; the area of the Lancones-TG2 concession; and the area of the El Papayo-TG3 concession.

The Tambogrande concession includes 10 concessions and has an area of approximately 10,000 hectares. These concessions are the property of Minero Perú, a company that has granted Manhattan Minerals Corp. (MMC) an option for three years. MMC will appoint Manhattan Sechura Compañía Minera S.A. to develop its obligations in the option agreement for the Tambogrande sub-project.

According to this option, Manhattan must prepare a feasibility study of the natural resources in the area of the concession, and if at the end of the three years, the study shows that the project is viable, Minero Perú will transfer to MMC 75% of the property of the project. If MMC exercises the option, the Empresa Minera Tambogrande S.A. (EMTG) would be formed, 75% owned by MMC and 25% owned by Minero Perú. EMTG would retain 100% of the property of the concessions, would start the development of the mine and construction during the fourth year and would be in charge of the operations when the mine would start to operate.

The concession of Lancones includes 80 concessions in an area of approximately 73,000 acres. The concessions are 100% owned by the Compañía Minera Manhattan S.A. (CMM). In these concessions, CMM will carry out a study program of the resources and produce a feasibility study. If a deposit is discovered whose development would be economically viable, CMM would develop the mining operation.

The Papayo concession includes seven concessions, in an area of approximately 3,200 acres. The concessions are 100% property of CEDIMIN S.A.

CMM has the right to acquire participation carrying out a study program of the feasibility and existing resources within the next four years. If there was a discovery, and the feasibility study shows that its extraction is economically viable, CMM and CEDIMIN would be able to opt for the development of the mining operation.

1.5 History of the mine

In Tambogrande, mineralization was detected initially as the presence of iron. In 1977, the presence of base metals such as copper, zinc and lead was discovered by INGEMET and BRGM, who conducted exploration activities in the area.

Between 1979 and 1981, the geophysical gravimetric studies identified an abnormality that lies partially under the town of Tambogrande. This abnormality (identified as TG-1) was drilled by BRGM, identifying a deposit of 42.3 million of tons with grades of 2.04% copper, 1.47% zinc, 0.36% lead and 37.7 g/t silver. Since 1981 there has not been much work in the area where the deposit is located and only recently the interest in its potential has been renewed.

1.6 Social and environmental problems

1.6.1 Social problems

Although programmed investments to carry out the Tambogrande project are amongst the 10 most important future investments of the country (see chart), the main problem is that the will of the local people is not being taken into account. They have overwhelmingly expressed their rejection of the project through a process of public consultation, absolutely unheard of in Peru. This omission is even more serious when we realize that, as a result of the development of the TG1, more than 2,000 townspeople of the area will have to be relocated, apparently against their will.

The beginning of the project corresponds to the open pit extraction of the deposit denominated TG1, located in the southern part of the town of Tambogrande. In TG1, an important deposit of a very high quality gold and silver has been found, whose recovery will only reach 800 thousand ounces of gold and 10 million ounces of silver in three and half years. In the lower part of the deposit there is mainly copper and zinc, and in a smaller scale, gold and silver, which would be recovered in 10 years.

As the Manhattan Company is only a medium company in Canada (with a network of \$62 million), a well founded fear exists that their low network and nearly nonexistent experience of working in highly vulnerable areas, like Tambogrande, will lead them to explore the surface gold and silver deposit for three years, then sell the project to a third party or (in the best of cases) transfer the deposit once the EIA has culminated and the new company be the one to carry out the investment of \$270 million that is needed. In that sense, the people mistrust a negotiation with a company that could withdraw and sell the deposit to another company, which by imposing new conditions, would carry out the extraction on the basis of new rules.

Future investments in millions of US \$		
Investor	Country	Mounts
Cambior Inc	Canada	2,300
Southern Perú	USA	1,000
Shell, Occidental y otros	USA	768
Cyprus Amax	USA	638.30
Repsol YPF Perú B.V.	Spain/Argentina	600
Minera de Mantos Blancos	Chile	515
Co. Minera Manhattan Sechura	Canada	510
Pan World Minerals Inc	USA	450
Consortio Noranda, Rio Algon		
Teck, corp. Mitsubishi	Canada	416
Cominco / Marubeni	Canada/Japón	300
This information is June 2000 and does not include the investment of Consortio Aeropuerto de Frankfurt Bechtel and Cosapi, concessionaires of the Aeropuerto Jorge Chávez that rises to US\$1,214 million in the thirty year concession.		

On the other hand the people perceive that a negotiation over the environmental conditions of the TG1 project (which as we said covers the urban area of Tambogrande), opens the possibilities to develop the other concessions of Manhattan and of other companies over all the San Lorenzo valley: the Buenaventura Mining Company; Phelps Doge (United States); Cyprus (United States); and others on the right bank of the Piura River. In a sense, the Manhattan concession is the tip of the iceberg of a reality that involves the whole valley. This is why a sector of the technical table promoted by SPDA considers that, as a basis for dialogue with the government, some concessions granted in the valley should be eliminated and, if necessary, declare them intangible.

In Tambogrande mining activity has never existed, therefore the local towns do not have the experience that communities in the higher Andes have, where traditional mining activity has developed. On the other hand, their inhabitants own some of the land that was given to them as part of a colonization program promoted by the State. Therefore, their main economic activity is based on the land: agricultural and agro-industrial activities. The farmers produce 150 million metric tons of lemons and 70 million metric tons of mangos, covering 96% of the fruit area. There are seven plants for processing mangos, three plants of lemon oil and 19 rice mills. The income from mango and lemon sales ascends to US\$100 million a year, the yield of both fruits still at only half their potential.

1.6.2 Environmental problems

There have been questions about the technical studies prepared by the mining company and other consultants. The most relevant criticisms came from an expert, Robert Moran,⁸⁴ who developed his research during the transition Government of President Valentín Paniagua under the auspices of three private entities: the Mineral Policy Center; OXFAM America; and the Environmental Mining Council of British Columbia with headquarters in Canada.

The field and office research concluded that the baseline study information does not allow the public to detect the future impacts and therefore assign responsibilities if these occur. On the other hand, it warns that the study does not indicate if the Manhattan Company has assessed the potential impacts from the dramatic increases of rain during the phenomena of El Niño. According to Moran, with a phenomena like

⁸⁴ Robert Moran is an internationally recognized expert hydrologist on environmental impact studies in mining. He studied at the University of Texas and graduated with a PhD in geological sciences in 1974. He has worked in different countries such as, Australia, Chile, Mexico, Canada, Great Britain and United States.

this happening regularly, the facilities of the Company may collapse, causing the highly contaminated waste to flow into the rivers, underground waters, agricultural areas and the town. The research also warned about problems with the availability of groundwater, the quality of the water and the dangerousness with respect to future waste.

2. Experiences with citizen participation

2.1 Mandatory citizen participation process

The process of environmental impact assessment has been developed to minimize or mitigate the potential impacts that the mining operations can have in an area. At a minimum, a baseline study of at least a year, followed by preparation of a report on impact assessment, is required. The baseline information must include local and regional information on:

- The atmospheric conditions (climate and air quality)
- The hydro resources (clarity and quantity of surface and groundwaters, hydrology, hydro-biological resources)
- The terrestrial resources (vegetation, wildlife, use of land)

The engineering studies should gather information on possible areas for disposal of the waste rock and the stability of the mining installations, and obtain information for new installations or the improvement of the existing ones. Also, they should consider the potential impact of the mining project on the local and regional environmental resources. The assessment should also take into account the potential effects from the extraction and processing of the mineral, the highways and the transport of concentrate from the mine to the port installations.

However, the EIA presented by Manhattan has not yet been analyzed; only the baseline study has been thoroughly studied, and was severely criticized by Robert Moran.

2.1.1 Permit and license requirements

The presentation of an EIA is a requirement established by the Peruvian Government for the approval of any new mining project in Peru. The Government reviews the study to make sure it is precise and complies with the current requirements and standards.

The Government, in turn, must promote a public review in the area of the project to listen to community's opinions, and approve the construction of the mine only if the project is considered acceptable from an environmental point of view.

The permits and approvals for the construction of the mine and subsequent mining operations also require the maximum permissible levels for the discharge of emissions and effluents, standards set out by the Peruvian Government and World Bank.

On the other hand, Peruvian legislation adopted in December 1998 specifically prohibits exploration or mining production in urban areas, such as the town of Tambogrande. According to legislation, the company had a two-year period to request an exception to such a ruling. The time expired and was extended by means of a Supreme Decree enacted during the Fujimori government. Since then, the date to finish the EIA has been postponed many times.

2.2 Standards for citizen participation

The citizen participation mechanisms being used while carrying out this project have mostly been informal ones. Also, the importance of the referendum of June 2nd has been played down, even though it was directed by the Municipality of Tambogrande and promoted by the dialogue roundtable.⁸⁵

⁸⁵ The dialogue table is made up by the Ministerio de Energía y Minas, the Ministerio de Agricultura, the Frente de Defensa de Tambogrande, among other members who discuss whether the company should carry out an EIA.

Although, as a part of the EIA approval procedure, these should be open to the public after they are elaborated, the residents do not allow these studies to be concluded because they believe the competent authorities (MEM and Dirección Regional de Energía y Minas) will approve the EIA without taking their opinions into account, as these authorities have already done this on various occasions.

The residents of the area have assembled into social groups, not regulated by the existing standards, which are insufficient and do not explain how they must organize the meetings, voting and quorums. In addition, there are not standards regulating which contributions must be considered or requiring the government to explain the reasons why it has adopted or rejected these contributions.

However, as we can see, the public hearings are restricted to the review stage of the EIA and not to the development stage. It is necessary to point out that citizen participation during the developing stage of the EIA is very important, mainly due to the public's experience and knowledge of the negative environmental impacts that could be caused in the area.

As mentioned before, campaigns for raising awareness and disseminating information generate among the public a greater interest for timely participation and the search for consensus solutions, these being complementary to the use of other mechanisms of citizen participation. There are groups that support the Frente de Defensa de Tambogrande, such as the Diaconía de Piura, which is made up of various organizations, and the Colectivo Tambogrande de Lima, which has begun to spread the agricultural problems of the area in the universities, schools and the media.

It is also important to mention the commissions of specialized and representative groups from the different sectors of society.

2.3 Voluntary citizen participation process

2.3.1 The Company's initiative

The Manhattan Minerals Company started their activities in the subproject Tambogrande-TG1, the most important one of the project. This concession would be developed by an open pit, southeast of the town of Tambogrande, making relocation of the town necessary. This, added to the impacts the mine would generate, has created profound uneasiness amongst the people of the urban and rural area.

According to some specialists, gold and silver were found in the higher part of the concession during the exploration phase, which once recovered would only amount to 800 thousand ounces of gold and 10 million ounces of silver in three and a half years. In the lower part they found copper with zinc and lead, gold and silver, which could be recovered in approximately 10 years. These numbers are inferior to the ones stated by the Manhattan Company, who according to experts, are increasing the value, **ley** and amount of minerals found because they intend to offer the project to bigger investors. (Manhattan is a Canadian *junior with* a networth of \$62 million, while the project requires an investment of \$270 million, although according to the information provided by Manhattan to the national press, the investment would only be \$510 million). We know that Manhattan needs to «elevate» the project and sell it or team up with another mining company with a higher financial capacity, therefore what the company has pointed in our country and overseas is not necessarily the truth.

Regarding the exploration phase, this began thanks to a Decreto de Alcaldía No. 010-99, a law enacted unilaterally by the Mayor of Tambogrande that authorizes these activities in the streets and sidewalks of the city without consulting the persons that make up the municipal authority, known as the Municipal Council. According to Peruvian law, this authorization should have been approved and issued through a municipal norm named «council agreement» that represents the decision taken by all the members (Mayor and Counsellors). As this formality was not fulfilled, the authorization is illegal and invalid.

2.3.2 The people

The people of Tambogrande are heterogeneous. On one side are the settlers, who were sold the plots of land in the San Lorenzo Valley in lots of 6 to 8 hectares. On the other side are the communities that base their existence on the agriculture use of the area as well as the bordering forests. The Frente de Defensa de Tambogrande is the most representative social actor of the area.

2.3.3 Other actors

After a strike and before the conflict got out of hand, a huge mobilization was carried out, led by a group of organizations, and civil and ecclesiastic authorities of the department of Piura and the neighboring regions, requesting the Manhattan Company to withdraw from Tambogrande, and find a peaceful way out of the conflict.

a) Tambogrande District Municipality

Its initial intervention in the conflict was questioned by the people because a mayoral decree was issued authorizing the exploration activities in the urban area of Tambogrande. In effect, by means of the Decreto de Alcaldía No. 010-99-MDT dated November 18th 1999, the Mayor of Tambogrande authorized the Manhattan Sechura Compañía Minera S.A. to carry out diamond drilling within the urban area of Tambogrande, which took place in the town's streets and sidewalks. This decision was taken without prior consultation of the townspeople and without the approval from the rest of the authorities that make up the Municipal Council. According to Peruvian Laws, to validly issue an authorization of this nature, the Tambogrande municipality should have emitted a Council Agreement and not a mayoral decree. The mayoral decree are issued by the Mayor, precisely to carry out mandates that emanate from the Municipal Council.

As this formality was not complied with, the authorization becomes illegal. Another mobilization was carried out in Tambogrande to promote the formal revocation of the Mayor. This did not happen, and after the events, the Mayor revoked his own decree and became an active promoter of public consultation so that the townspeople could express their opinions. In spite of this, the townspeople do not get along with the authorities.

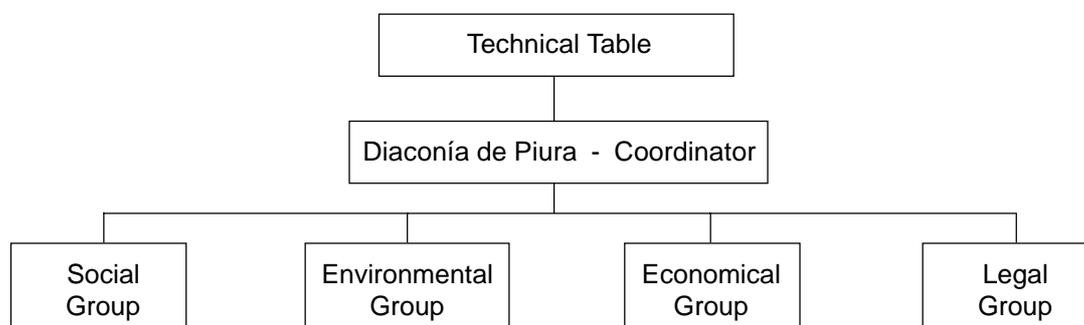
b) Frente de Defensa of Tambogrande

The Frente de Defensa of Tambogrande is the most representative social actor of the area. It is made up by people of Tambogrande and farmers of the San Lorenzo Valley. These people acknowledge the impact an open pit mine could have on their farmlands and carob bean forests (taking only the first phase of the project into account, later it would be expanded to the Lancones and Papayo concessions). This is their reason for opposing the project.

In the first stage, and as requested by the Diaconía Piura organization (linked to the Obispado de Piura), the strengthening of the Frente de Defensa de Tambogrande as an entity, representing the local population that would act as a valid and legitimate speaker before the mining company and the State during the different stages of dialogue was made a priority.

As part of the incidence strategy, a Mesa Técnica de Apoyo a Tambogrande⁸⁶ was convened with the objective of offering technical assistance and qualified information to the Frente de Defensa.

The structure of the Mesa Técnica de Apoyo is as follows:



⁸⁶ The technical table is made up by Diaconía para la Justicia y Paz de Piura; Aprodeh; Comisión Episcopal de Acción Social; CEPES; Cooperation; ECO; Fedepaz; Asociación Civil de Labor; Coordinadora Nacional de Derechos Humanos ; and SPDA.

The Peruvian Society for Environmental Law (SPDA) has been working with the social and legal groups, without disregarding their participation in the agreements adopted by the Mesa Técnica de Apoyo.

The employees of the Manhattan Company have tried in vain to technically support the project. The Frente de Defensa de Tambogrande, through various pronouncements and studies (many of them canalized through the Mesa Técnica), has repeatedly refuted each one of the points.

After actively participating in public consultation carried out in the district of Tambogrande, where more than 92% of the citizens opposed the project, the Frente de Defensa de Tambogrande was consolidated as the key actor of this conflict, after an initial stage of weakness and confusion.

It is necessary to specify that the municipalities of the department of Piura and the Asociación de Municipalidades del Sur de Ecuador y el Norte del Perú, have issued a statement supporting agriculture and the conservation of the environment in Tambogrande.

c) The Catholic Church

The position of the Catholic Church has remained clear in the public pronouncements made by the Bishop of Piura and Tumbes, Monsignor Oscar Cantuarias, and the Bishop of Chulucanas, Monsignor Daniel Turley, who requested «the Compañía Minera Manhattan Sechura, to immediately withdraw from Tambogrande in order to restore the tranquility and peace of our towns».

Although a clear announcement from the Bishops with respect to the situation in Tambogrande does not exist, mainly because each Bishop has authority only over their own jurisdiction, it is possible to infer that the majority are in favor of their opinion, to the extent that the Comisión Episcopal de Acción Social, a support organization and promoter of human rights directly linked to the Bishops of Peru, is actively working with the Mesa Técnica de Apoyo a Tambogrande.

d) Civil society organization of Piura

The local organizations are organized under the name of Colectivo Tambogrande, a voluntary network mainly made up of young people and traditional and human rights institutions of Piura, who organize opinion and support campaigns for the people of Tambogrande. The Colectivo Tambogrande has managed to gather 28,000 signatures out of a total of 37,000 potential voters, certified by a Notary Public, protesting against the continuation of mining. These signatures were declined by the government and the company.

e) Sociedad Nacional de Minería y Petróleo

The Sociedad Nacional de Minería y Petróleo (SNMINPE) is a trade union representing the mining and oil management sector in Peru. It is a very strong and consolidated union. During all this conflict, it has kept a relatively neutral position and has not issued any kind of statement against or in favor of the project. It seems that there are disagreements within the union on the appropriate approach; one sector recognizes that the negative consequences of the project could adversely affect the other projects and the global image of the mining sector in Peru.

However, soon after the public consultation was carried out on June 2nd 2002, the presidency of SNMINPE publicly declared that this kind of mechanism was illegal, and whatever the result, it would not influence in approval of the mining project, because it was not part of the requirements of Peruvian law. This is still a controversial debate between the people of Tambogrande and competent authorities.

2.4 Public consultation mechanisms

As a result of the commitments undertaken by the employees of the Manhattan Company and the central government and with the understanding that «if the town of Tambogrande opposes the project, it will not be carried out», the organized people of this town pressured the District Mayor to find mechanisms for expressing their opposition. Soon after, the Mayor organized a campaign to collect as many signatures as possible, to ratify their opposition against the mining project.

Although this campaign managed to collect more than 28,000 signatures, it did not have much of an impact, as neither the government nor the company ever respected it, pointing out that the signatures were not valid and that the majority of them were false or duplicates. This generated uneasiness among

the people; therefore, through the Mayor and other people who represent them, they requested a Mesa Técnica to find a legal way out of this trap.

The Mesa Técnica requested the legal group to work out a solution. The group suggested the setting up of a public consultation, which could then be regulated as a non-binding alternative to find out the public's opinion of this project.

In September 2002, the group met with the objective of working out the respective regulations, which after being approved by the Municipality of Tambogrande, would allow a public consultation to be carried out that would uniquely reveal the opinion of the population of Tambogrande with respect to the mining activity and the model for development of their districts. The first regulation created the public consultation mechanism calling it «local consultation,» and the second regulation contained the council agreement required to carry out a consultation.

Once both regulations were published in the official newspaper *El Peruano*, the Municipality of Tambogrande requested the support of the Oficina Nacional de Procesos Electorales (ONPE), the offices in charge of organizing and carrying out this kind of process. Although the ONPE at the beginning did show interest in organizing the consultation, they changed their views later on, mainly because of the intense political pressure from the Ministerio de Energía y Minas, who at first opposed local consultation. Therefore on January 19th 2002, ONPE published in the official newspaper *El Peruano*, a resolution not to organize the process and instead, «offered the District Municipality of Tambogrande, electoral advice, for the development of local consultation approved by means of the Acuerdo de Concejo...»

Although this resolution ratified the legality of the consultation, the Ministerio de Energía y Minas, by means of a resolution also published in the official newspaper *El Peruano*, authorized the Public Defender to contest administratively and judicially the resolution of ONPE, alleging it had illegalities. After the Public Defender presented the corresponding petition to object, the Mesa Técnica gave advice to the Municipality of Tambogrande on the administrative process started. They presented writ, pointing out the arguments in favor of the questioned resolution of the ONPE.

On April 26th 2002, ONPE emitted a second resolution ratifying the first one, and as a consequence, confirmed their support to carry out local consultation.

Nevertheless, later on, approximately one month before the consultation was to take place, ONPE emitted a third resolution by which they withdrew their support.

Besides all these and other inconveniences, the local consultation of Tambogrande took place on June 2nd 2002, thanks to the active local people and the organizational efforts by the Mesa Técnica. From the early hours, the people started going to the six voting centers located at different facilities, where 200 tables were installed for the 36,936 voters. Young and old, in a true democratic environment, went to vote under the protection of more than 400 police located at strategic points, as well as local and foreign journalists.

Observers from Holland, Germany, and Canada were present for the local consultation and member of the Asociación de Voluntarios Italianos en Perú, el Grupo Latinoamericano de Iglesias, el Grupo Peruano de Resolución de Conflictos, el Central Internacional de Recursos Jurídicos, el Centro de Investigación sobre América Latina y el Caribe de Universidad de York y las misiones Beléy Canadiense, associated with the Defensoría del Pueblo y el Grupo Transparencia (the designated defenders of human rights), which acted as a monitoring committee. All of the entities guaranteed the integrity of the process. The consultation was closely followed by the Congressman Johnny Peralta (APRA) and José Luis Risco (UN), by municipal officials Otto Seminario y Luis Ortiz Granda of the municipality of Piura and by the departmental secretario of APRA, César Trelles Lara.

Results of the local consultation carried out in Tambogrande on June 2nd of 2002		
In favor of No	25,381	93.9%
In favor of Yes	347	1.3%
Null Votes	889	3.3%
Blank Votes	398	1.5%
Total of votes:	27,015	

For SPDA, the consultation and then the later debate means the end of an important stage in the process. In all the instances, a reflection and debate process has begun to define the post-consultation strategy. The tendencies are clear: (1) to demand that the government recognize the consultation, legally and politically, and desist from the project; (2) to maintain the premise, acknowledged from the beginning, that consultation represents a baseline of the people's opinion on the investment and an implicit challenge for the company to obtain the social licence of the project.

There are a number of meetings being carried out in Lima and Piura to define the best strategy. One of the options is to make public all the work carried out by the Mesa Técnica and include in the event a representative of the Frente de Defensa, who will be in charge of making known the conditions that the MEM should comply with to continue with the dialogue, such as the elimination of the mine concessions in the Tambogrande Valley.

The effort displayed until now has been very intense, and the community of Tambogrande has been strengthened so they can protect their land before the threat of an extractive activity. There are various aspects to point out in this case:

- It is first time in Peru that a little known local community, not very outstanding in cultural and economic terms, makes use of the right of local consultation to find out the opinions of the people, as a prior requirement to the implementation of an extraction activity.
- The implementation of the local consultation has illustrated the need to develop the mechanism as part of the process for carrying out the works or activities that could have a highly relevant impact (such as an open pit mine or the involuntary relocation of the people).
- The Peruvian authorities, especially the MEM, have found the need to redefine the citizen participation regime in the implementation process of a mining activity, an initiative that has been taken on by the Defensoría del Pueblo, which put forward a project to modify the public hearing regime, which has not been properly analyzed or commented on by the SPDA as requested by the people of Tambogrande and the Defensoría del Pueblo.
- An efficient and effective institutional scheme has been developed to confront this conflict. We refer to the Mesa Técnica de Apoyo a Tambogrande. What is interesting about this initiative is that it has been able to complement the different approaches to the conflict, these being legal, environmental, or economical.
- A democratic and participative path has been opened to find a solution to the social-environmental conflict generated.

3. Conclusions

The main social problem is that the willingness of the local people was not taken into account, which is important in the decision-making process, together with the studies prepared by the mining company and other consultants.

One of these studies was that carried out by Robert Moran during the transition government of Valentín Paniagua, under the auspice of three private entities.⁸⁷ The result of the field and office research was that the preliminary EIA studies, done by the Canadian mining company in Tambogrande, were extremely mediocre if they were to be judged in accordance with the criteria of the Office of Environmental Studies of British Columbia, criteria that the Minera Manhattan would have had to comply with if they were to propose the extraction of a mine in their own country.

Also, 28,000 notarized signatures from a total of 37,000 potential voters were gathered in the district of Tambogrande, protesting against the continuing development of the mine,. These signatures were not taken into account by the company nor the authorities. As mentioned before, on June 2nd. 2002 a local consultation took place headed by the Municipality of Tambogrande, which resulted in 90% of the town population stating their disagreement with the mining activity in the area.

⁸⁷ These are: Mineral Policy Center and Oxfam America (both with headquarters in United States) and Environmental Mining Council of British Colombia (with headquarters in Canada).

Frequently the willingness of the people is not taken into account, since it thought that their opinion should be based on technical studies, which have not been concluded. Regrettably, these studies are sometimes not very objective and often the results are inexact or exceedingly optimistic when they are compared with reality. Therefore, clear facts gathered by independent agents are required, but this is very expensive.

Until December 9th 2002, the company had not provided an environment impact or feasibility study that would describe the future impacts and processes proposed. It is believed such a study will definitely be approved by the competent ministry. Therefore an independent study needs to be carried out to guarantee the people that their agricultural activity will not be harmed by a mining activity, nor will the areas where they live.

This is a very controversial case because in the area two resources converge, the agricultural and mining, and because the local citizens do not know if they will benefit from the project or from being relocated.

The San Lorenzo Valley, the number one producers of lemon and mango in the country, seeing themselves threatened by the possible development of an underground deposit, convoked (after many conflicts) a local consultation and the result was that 90% of the people supported agriculture in the region. Nearly 37,000 townspeople went to the consultation, in face of the threat of the mining company contaminating the river in the area and 57,000 hectares of the valley that produces mangos and lemons.

The president of the Sociedad Nacional de Minería, Petróleo y Eneregía, Ricardo Briceño, pointed out that the local consultation was illegal and, whatever the result, it would not influence the approval of the Tambogrande Mine project, as it is not part of the legal requirements. This is a debate that still generates controversy among the people and the competent authorities.

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Improving Citizen Participation in the Environmental Impact Assessment Process for Mining

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Expansion of mining in the western hemisphere presents a great potential. However, its development requires not only improved productive and management practices, but also policies that are based on social and environmental responsibility.

In general, the relationships between mining companies and their surroundings are very complex. The need for local communities and mining efforts to associate themselves is, in the short term, a very important area for analysis for companies, the State and communities. However, this is not possible if public and citizen participation instruments are not generated to facilitate a relationship based on confidence and not conflict, on dialogue and not confrontation, in a clear recognition of rights and not their violation. At present, it is highly probable that there will be more and more conflicts arising between mining companies and communities.

It is in the building of these tools that there is the need to recognize progress made and make use of experiences derived from existing management instruments, enriching them, modifying and reinforcing them as necessary, with a double objective: using them as a means to prevent conflicts or environmental impacts, and to turn them into viable, objective and reliable tools. This is the main goal of this project developed in five key mining countries of the hemisphere by environmental law centers (Canada, Chile, the United States, Mexico, and Peru).

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