

Stakeholder Involvement in Catchment and Mining Impact Management in Arid Zones of Peru, Bolivia and Chile: The Experience of the CAMINAR Project

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Abstract

The CAMINAR Project (Catchment Management and Mining Impacts in Arid and Semi-Arid South America), funded by the European Commission 6th Framework Program, had the objective of contributing to the establishment of policy options, management strategies and technologies for the sustainable management of ecosystems in river-basins of arid and semi-arid South America which are subject to impacts from mining. The project focused on three river basins: the Chili River Basin (Peru), the Poopo Lake Basin (Bolivia) and the Elqui River Basin (Chile). In each of these basins CAMINAR established multistakeholder platforms to discuss water and mining in the context of river basin management. Each of the platforms was set up by local partners taking into account the needs and opportunities of the particular social configuration of their river basin. In Peru, it became a Technical Group under the umbrella of the Regional Government of Arequipa; in Bolivia, an active process of involvement with communities at municipal and regional levels; and in Chile the project became involved in the establishment of a Regional Roundtable on water management. Miners need to foster the creation of independent river-basin organisations to obtain the social license to operate.

Key Words: multistakeholder platforms, water management, mining pollution, water governance, social

Introduction

Mining and society

Mining is as much about people as it is about minerals. The positive and negative impacts of mining have always impinged on societal attitudes towards it. Historically, the main social relationships of a mining company were with its employees and the authorities that controlled land and ores. However, since the 1980s, and parallel to the emergence of stricter environmental regulations, there has been a gradual shift in the requirements for social engagement before, during and after operation.

After the Rio de Janeiro Earth Summit in 1992, large mining companies started to understand that continuous engagement with environmental and societal concerns was a prerequisite for gaining and retaining the “*social license to operate*”, which in itself was a condition for reducing short and long term risk to the business. This awareness in the mining companies has been preceded by an increase of both local and global anti-mining activism (Moody 2005). In spite of the emergence of strong self-regulation towards “sustainable mining” in organisations such as the International Council of Mining and Metals (ICMM 2012) conflicts are still rife.

One particular aspect of this interaction between mining and society is stakeholder involvement. The ICMM sustainability principle 10 states that companies will implement effective and transparent engagement, communication and independently verified reporting arrangements with stakeholders, while principle 3 requires upholding human rights and respecting cultures, customs and values in dealings with whoever is affected by mining activities. Similar requirements appear in the Equator Principles (Equator Principles Association 2006), the credit risk management framework for determining, assessing and managing environmental and social risk in project finance transactions signed by the world's leading financial institutions. These principles are based on the International Finance Corporation Performance Standards on social and environmental sustainability and on the World Bank Group Environmental, Health, and Safety Guidelines. The guidelines on consultation are very clear (Principle 5 Consultation and Disclosure): they should be “free” (free of external manipulation, interference or coercion, and intimidation), “prior” (timely disclosure of information) and “informed” (relevant, understandable and accessible information), and apply to the entire project process and not to the early stages of the project alone. They should also be tailored to the language preferences of the affected communities, their decision-making processes, and the needs of disadvantaged or vulnerable groups. Overall, genuine dialogue is considered an absolute requirement for a mining industry willing to contribute to sustainable development (Amezaga *et al.* 2011).

Institutional aspects of stakeholder involvement

Stakeholder involvement in mining is a particular instance of stakeholder participation in natural resources management (Reed 2008). It never occurs in a vacuum but is part of an intricate network of institutional relationships. Here we define institutions as the “the prescriptions that humans use to organize all forms of repetitive and structured interaction ... at all scales” (Ostrom 2005) following the Institutional Analysis and Development (IAD) framework, a well-known approach to institutional analysis in natural resources management. Mining will inevitably bring about a reorganisation of these prescriptions around a set of new relationships between the community and the mine.

There is a growing body of literature analysing the contextual factors that frame these interactions and that are critical for the design of successful institutions (e.g. Auer 2006). We can distinguish between contextual factors that rule the fitness to local conditions (fitting factors) and contextual factors linked to the mobilisation of power both at the micro and macro-level (mobilising factors) (Clement and Amezaga, *in press*). Amongst the former, we can single out three dimensions: the biophysical conditions, the characteristics of the community (including culture) and the rules involved in resource allocation. For example, the aridity of a zone will affect the importance of water as a resource for communities, the presence of minorities or indigenous population will shape a different reality for involvement, and the existence or not of clear rules of allocation of the local economic contribution of a mine will determine the framework for negotiations. The designer of a process of stakeholder involvement should understand and be mindful of these three dimensions. Amongst the mobilising factors, we have to take into account how the political-economic context shapes power dynamics and how the discourses that frame the thinking and actions of actors are both an expression and instrument of power and knowledge. In many countries, particularly in the global South, mining is such an important component of the national economy that it is unavoidably linked to political and economic power. The temptation to use these power mechanisms to expedite mining in the face of local opposition is simply too strong to be easily dismissed. Moreover, all these dimensions are not static but are always linked to a particular historical path (Mendez *et al.* 2012). Clear examples of the long shadow of history are the intrinsic distrust of mining companies by indigenous populations, the environmental legacy of abandoned mines and the expectation of massive pollution by farmers. Frequently, the discourses that shape the attitude of different actors are based more on past realities than on the current situation.

In this paper we focus particularly on stakeholder involvement in the interface between water and mining within the framework of an international research project (CAMINAR Consortium 2010) that

was aimed at the sustainable management of mining-impacted river-basins in arid and semi-arid South America. Despite the predominance of water in mining related conflicts in the whole mining cycle (Kemp *et al.* 2010, Moran *et al.* 2008), the tendency of the mining industry has been to focus almost wholly on the extractive phase. The fact that water belongs to catchments (in this paper river-basin and catchment are used as synonymous) and that catchments are the natural unit for water management have been frequently ignored, although there are guidelines particularly oriented to this purpose (ERMITE Consortium 2004, Loredó Perez *et al.* 2010). Stakeholder participation in integrated catchment management is *per se* a contentious issue. Empirical research has shown that Multi-Stakeholder Platforms can be helpful bargaining spaces for visioning and information exchange but may not be the best vehicle for distributive negotiation and politics (Warner 2006). However, the existence of platforms for stakeholder involvement is considered a fundamental pillar of integrated river catchment management (Jaspers 2003).

Project CAMINAR

More than 25% of South America is arid or semi-arid. A general lack of rational water management systems hinders the sustenance or recovery of ecosystems and human communities in these areas. Mining potentially has one of the highest environmental impacts, yet it contributes more to legal export earnings in the region than any other sector. There is clearly a need to develop new approaches to river-basin management in the region in order to ensure harmony between important economic activities and sustainable management of water resources.

CAMINAR (Catchment Management and Mining Impacts in Arid and Semi-Arid South America, 2007-2010) was a project supported by the 6th Framework Programme of the European Commission aimed to inform policy options and to develop practical strategies and technologies for the sustainable management of mining-impacted river-basins in arid and semi-arid South America, focusing on three demonstration catchments in Peru, Bolivia and Chile.



Figure 1. CAMINAR demonstration catchments (Map courtesy of the University of Texas Libraries, The University of Texas at Austin)

CAMINAR pursued the following objectives:

1. Establish forums for dialogue on the impacts of mining on water management in arid / semi-arid river-basins in each of the demonstration countries and at regional level,
2. Critically evaluate the effectiveness of existing regulatory strategies for mining in arid / semi-arid areas for selected river-basins in the demonstration countries,
3. Develop guidelines for integrated water resources management in arid / semi-arid zones of South America with particular emphasis on mining impacts
4. Develop decision support tools to support participatory water management planning in the demonstration river-basins.
5. Derive a set of principles for future policy development and implementation to protect fragile ecosystems and dependant human communities in arid / semi-arid regions.

The project was centred on three river-basin case studies which provided the centre of gravity for its activities: River Chili (Peru), Lake Poopo (Bolivia) and River Elqui (Chile). For each of the case-study river-basins dialogue groups were installed and a process of involvement of local stakeholders was carried out. In each of the South American countries a National Working Group was formed to discuss policy options. At the end of the project a Regional Workshop analysed the wider policy implications of the findings of the project. The case-study river-basins had been carefully selected to illustrate the problems of integrated water management at the river-basin scale in arid / semi-arid areas where mining is both a key water user and an important economic actor. The final deliverable of the project has been a river-basin plan with options for integrated water management for each of the basin study basins.

Stakeholder involvement in Peru

Context

Peru is a major producer of silver, copper and zinc, as well as a significant source of gold, lead and tin. Metals produce more than half of the country's export income. The introduction of a new system of royalties and taxes in 2004 meant increasing access to (and dependence from) mining revenues for national and local governments. Since the 1960s the country has steadily produced a legislative framework for mining and environmental management, which is now considered one of the most comprehensive regulatory systems in South America. In 1993 the constitution declared all natural resources patrimony of the nation with a licence system to allow their exploitation. The creation of the Ministry of the Environment in 2008 marked the end of the previous total control of the administrative processes by the Ministry of Energy and Mines. Similarly, the 2009 Law of Water Resources established a National Water Authority and a system of integrated river-basin management.

In spite of all these developments, it is estimated that one third of the social conflicts in the country are provoked by mining and most of them are water-related (Bebbington and Bury 2008). Some of these conflicts have deep historical roots both socially and environmentally. With mining predating colonial times, the legacy of abandoned mines closed under a different regime is ubiquitous in the country and the memory of recent mining related conflicts pervades all the discussions (Muradian *et al.* 2003). Peru has great diversity of biophysical conditions ranging from the wet north to the extremely arid south. In the arid areas, allocation of the water resource itself in competition with other uses is the critical issue.

National Dialogue Group

In Peru, CAMINAR was able to join a fully developed national dialogue forum where our local partner, Asociacion Civil Labor had a leading role. The Mining and Sustainable Development Dialogue Group (GDMDS) was created in the year 2000 with the aim of promoting dialogue among the different stakeholders concerning mining and its relation to responsible environmental management and sustainable development. This is a framework that provides a meeting venue for representatives of the main mining companies, NGOs, consultants, communities, universities, municipalities, Public Attorney Offices, the Supervisory Agency for Energy and Mining Investment and the Peruvian Ministry of Energy and Mines.

GDMDS is a meeting venue for leaders in diverse fields, facilitating interaction, interconnection, agreement on initiatives, establishment of agreements, and reduction in or clarification of degrees of disagreement. Dialogue is based on respect for existing differences, while highlighting positive practices to discover the positive side of events and to learn from adversity. The existence of GDMDS is based on free and voluntary affiliation. Its authority derives from a capacity to formulate recommendations and express opinions based on transparency, technical expertise, the inclusion of opinions from all the parties involved, whilst at the same time being consistent with the development objectives of the country and its people. Using dialogue as a basic approach, GDMDS has generated trust among stakeholders from different local backgrounds, helped prevent conflict and supported the prevention and resolution of differences, provided capacity building, and the improvement of policies that enable a consolidation of management processes based on consensus at local, regional, and national levels. A very important achievement of GDMDS was the “Agreement for Mining with Social and Environmental Responsibility” (Por una Minería con Responsabilidad Social y Ambiental: Un Acuerdo Fruto del Dialogo) (2005). The Mining Agreement was a proposal for a concerted public agenda including: the creation of an Environmental Authority independent of the Ministry of Energy and Mines; working in coordination with the Government but in a decentralised manner in order to improve transparency and citizen participation; and adopting a new catchment management approach, working for the conservation and rational use of natural resources, especially water. Following on this last point, CAMINAR supported the creation of a special Committee on Water, Catchment and Mining within the GDMDS. This committee developed a full “Agenda for the sustainable management of water, catchments and mining”, which in February 2011 had 120 signatories including representatives from key NGOs, companies and government (Grupo de Dialogo 2011). The agenda is based around these points:

1. Cooperation of all actors in catchment and subcatchment management organisations
2. Public access to information, water balances and participative planning
3. Expansion of good practice in water management in mining
4. Cooperation of actors in the remediation of abandoned sites
5. Participative monitoring and environmental control in extractive industries and catchments
6. Joint action to establish a formalized and non-polluting artisanal mining sector.

Case study in Peru: Technical Group for the Chili River Basin

During the design phase of the project, the partners undertook a thorough revision of potential catchments where we could demonstrate how a stakeholder dialogue to discuss water, catchments and mining would work. It was critical that conditions existed that could allow the establishment of this group without being overburdened by already existing conflicts. The case study in Peru is the River Chili (Figure 2) which is close to the city of Arequipa. The Chili rises at 4800m above sea level, from rainfall and seasonal meltwaters of the major glaciers of the western flank of the continental divide. The natural discharge regime of the river is regulated by reservoirs at El Frayle and Aguada Blanca, and by transfers of flow from part of the upper catchment of the River Colca. Surface runoff is used to meet agricultural and hydroelectric generation demands. It is widely recognized that the sustained availability of water is vital both locally and regionally, both in rural and urban areas, without which various population centres would disappear. During the last years a large mine has been developed at Cerro Verde principally for copper using waters abstracted from the river Chili for mineral processing. Cerro Verde has expanded its production capacity in recent years. Being aware of the concerns of the local population, the company implemented a proactive policy co-financing a dam which distributes excess water to other users in the basin of the River Chili. This proactive policy created an excellent bottom line to initiate a dialogue process about the management of the river.

Negotiations with the Regional Government of Arequipa led to the establishment of an advisory Technical Group created pursuant to Regional Agreement No. 033-2007–GRA/CR-Arequipa and operating under the Environmental Management System of the region of Arequipa. The objectives of this group were the formulation of catchment management policy proposals with an emphasis on mining and the preparation

of a Management Plan for the Chili River Basin. These objectives were achieved during the project. The Technical Group comprised of 30 organisations, amongst which are public agencies such as local governments and decentralised sectorial departments, civil society organisations, NGOs, mining companies, and universities. The Technical Group for the Chili River Basin held more than 20 regular meetings and numerous workshops, conducting many other activities, including press conferences, field trips and visits, and the organisation of events related to water, catchments, and mining. After two years in operation, the group was strengthened with the addition of six new members, representing the incorporation of upper basin corporations and communities. During its lifetime the Technical Group attained further cohesion, with more space for debate, capacity, and willingness for presenting proposals and following up on agreements adopted in work sessions. Furthermore, its work expanded to nearby regional settings, such as Moquegua and Tacna, where the development of water management-related events has been supported. Minería Cerro Verde kept a cautious presence in the group. In spite of the favourable conditions for dialogue the mining company maintained a reserved attitude towards full participation in the open space. However, by the end of the project there was a clear improvement in the relationship with other actors as a consequence of their joint participation in this process. This was publically acknowledged by the actors during the final event of the project, an international seminar that took place in Lima. Remarkably, the guidelines for the River Chili management policy that were produced by the group included a section on the positive contribution of mining to the catchment.



Figure 2. River Chili (Peru)

Stakeholder involvement in Bolivia

Context

The history of Bolivia is dominated by mining. The human population and the landscape in this region still endure the long lasting legacy of these activities. Vast spreads of contaminated land and persistent pollution of air, soil and water are common in the mining areas of this country. The Bolivian legislation on the environmental regulation of mining started with the first Environment Act in 1992, and was further reinforced with the requirement of the reformed mining law of 1997 that future mining be conducted in accordance to the principles of sustainable development. The legal framework in Bolivia is now quite strong but it is poorly enforced. However, many international companies operating in the country voluntarily maintain high international standards. This has not changed the perception of the population that mining is a source of environmental destruction. Since the change of government in 2005, the state

has prioritized economic development to reduce poverty without paying equal attention to environmental sustainability. This has led to the expansion of unregulated small and medium size mines, which often have an environmental impact out of proportion with their size. This sector is very sensitive to international metal prices and reacts with rapid abandonment of the mines without any environmental precaution.

Case study in Bolivia: Lake Poopo and Uru Uru basin

The case study in Bolivia was the Lake Poopo and Uru Uru basin (Figure 3) located in the Bolivian High Planes, a plateau lying at altitudes between 3600 and 3900 masl. with a semi-arid and cold (8-10°C, annual average) climate. In the last fifty years, the average annual precipitation has been 364 mm. This study area suffers from water resource degradation, due to organic and bacteriological pollution coming from urban areas, heavy metal pollution coming from natural sources and / or the mining and metallurgic industries. Other problems are the high salinity levels of certain bodies of water, which may range from 2 to 100 g/l.

Historical and current mining operations in the area of Lake Poopo are responsible for the formation of acid drainages loaded with metals coming from mines, mineral residuals and inactive mines. An important part of the environmental damage can be attributed to the continuous generation of metal-laden acid effluents originating from the remaining active mines and the inactive mines. These effluents contaminate the water streams, lakes and underground waters, eliminating the flora and aquatic fauna in great sections of rivers and degrading the quality of the water below the security levels. Additionally, a strong natural pollution exists in this area due to the presence of minerals compounds of toxic metals. Mining production in the region is mainly destined for foreign markets. Gold, lead, tin, silver and iron (among others) are extracted. The area shows a patchwork of nested mining activities ranging from large- scale international and national mining to medium-size mines frequently run by cooperatives and small artisanal activities. Most of the population has suffered a chronic lack of protection from mining pollution and abuse from both powerful governmental and non-governmental actors. CAMINAR local partners had already conducted several monitoring campaigns in the area which provided both baseline data and excellent links with regional and local government.

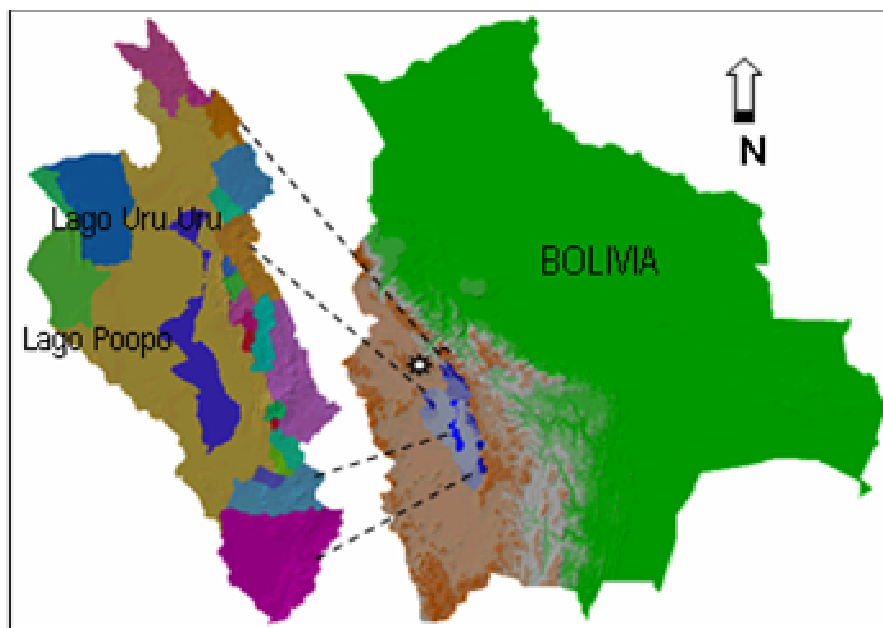


Figure 3. Lake Poopo and Uru Uru Basin (Bolivia)

Stakeholder analysis and organisation of stakeholder involvement

During the development of the CAMINAR Project in Bolivia, four sets of social and institutional stakeholders were identified by the local partners, and interactions with them were carried out in order to attain participation in the different activities undertaken, as well as in workshops, meetings, and field work:

1. Central Government Authorities
2. Regional Authorities
3. Mining Companies (large-, medium- and small-sized)
4. Communities, Municipalities, NGOs, and scholars.

CAMINAR partners already had excellent links with key ministries in the capital and were actively advising the government on the implementation of river basin policies. They are also leading members of the main association of environmental NGOs involved in a continuous dialogue on national policies, including the revision of the mining code. Four different Vice ministries (Mining, Environment, Water and Science and Technology) participated in the workshops organised by the project and engaged in direct interactions with the project members. One difficulty, which is a common characteristic in the involvement with government officials, was the changes in high-level staff in the ministries due to political reasons. The possibility of interacting with central government officers was one of the elements communicated by CAMINAR to the other stakeholders in the search for achieving interactions within an environment of cordiality and enabling appropriate communication channels.

A second group of social and institutional stakeholders were the regional authorities from the Prefecture of the Department of Oruro. One of the reasons to choose this region was the pre-existing working relationship with the technical section of the Prefecture, both in the Secretary of Environment and Natural Resources and the Departmental Directorate for Mining and Metallurgy. They were very helpful during the whole project, providing access to background information. They also helped the project by sending their technicians to participate in monitoring and follow-up field visits. This enabled the participation of the CAMINAR Project in several dialogue roundtables that were developed during the project implementation period.

The third group comprised corporate stakeholders involved in large and medium-sized mining, cooperative associations, and small-scale mining. The participation of large and medium sized companies from the area was limited. Several companies (Sinchay, Waira, Tiwanaku and Cooperative Poopo) attended the local validation workshop in Poopo and Pazña but did not engage further with the project. However, the project developed a very fruitful dialogue with the Asociación de Ingenios Mineros de Potosí which were able to express their environmental concerns, their social conflict dynamics, their ways of resolving them, and also their demands to regional and national authorities. In this respect, it may be stated that, despite the problems faced by these entrepreneurs due to the lack of investments in prevention and environmental mitigation, they are aware of the deterioration they may cause. They formulated several proposals to be considered by government for investment policy purposes.

Municipalities and local communities in this part of Bolivia are strong references of institutional support in the mining related environmental area, as they have very participatory structures. They provided technical support for the organisation of participatory workshops with the attendance of members from the municipal government, base territorial organisations and communities, some members of mining cooperatives, and base groups self-denominated “agro-miners”. The dialogue process was aimed at harmonising interests so as to avoid conflicts and generate sustainability dynamics for environmental and social systems. The empowerment of these groups and the production of participative Environmental Action Plans for both Municipalities were the main achievements of the project. According to the local communities it was the first time they were asked to participate in a process where they could trust the organisers and access reliable information about the environmental state of their lands. A highlight of the

project was the participation of one of the community leaders as keynote speaker in an international conference in La Paz.

Stakeholder involvement in Chile

Context

Copper mining in Chile accounts for more than 50% of the national exports, showing the dependency of the country on this activity. The majority of the deposits are in the very arid north, where water resources are the main limitation of expanding mining activities. Environmental regulation before the return to democracy in 1990 was very limited. However, one important legacy from that period was one of the most radical privatisations of water services in the world. Water resources were assigned to private actors, creating a free market for the trading of water rights.

Since 1994, legislation requires mining developments to undertake an environmental impact assessment. The environmental act considers the participation of the local community in the environmental impact assessment of new projects. However, this possibility is very limited and difficult to exert, often resulting in frustration for the participants. Empirical research undertaken by the CAMINAR project (Lostarnau *et al.* 2011) identified the following as key reasons; the imbalance of resources and knowledge among the majority of participating communities and project proponents, the complexity and administrative and legal constraints to participation, and the dominant interest of the Central Government in approving investments, specifically in energy and natural resources related projects, which generate wealth and jobs. Similarly, the extent of private control on water resources means that the public administration has limited jurisdiction to enforce sustainable management.

In the arid north, there are severe conflicts over access to water, especially between the agricultural and mining sectors (Oyarzun and Oyarzun 2011). Mining in this region is usually undertaken by large companies, which have voluntarily adopted strict environmental codes. However, in the framework of the consequences of the uneven mining–agricultural competition for water rights and the environmental effects of accelerated groundwater withdrawal, social unrest has locally attained serious levels. The central government is considering significant changes to the present legislation, allowing a stronger participation of the state in water management issues.

Case study in Chile: River Elqui

The Elqui river catchment (Figure 4) comprises a mountainous surface of 9.645 km², formed by narrow, steep valleys, with rivers that are tributaries to the main, but also narrow Elqui river valley. This watershed is representative of other basins of the arid belt that extends between 27° and 33°S. A historical record of precipitations, available only for La Serena, at the Elqui river mouth, indicates a systematic decreasing trend for the 1908 (170 mm) - 2003 (70mm) span. However, no correlative decrease in the Elqui river annual average discharge, measured in mid-watershed locations, has been detected. In consequence, either the precipitation at the Andean zone has not diminished or the melting of glaciers (including rock and debris-covered ice) has provided a growing portion of the water yield. As for other basins of the 27°-33°S belt, the Elqui river watershed is rich in mineral deposits and has been subjected to intensive mining activities since the beginnings of the 19th century. As a consequence, Cu, Zn, As, and other heavy metals and sulfate have been found in high concentrations in water and sediments through the basin, a condition aggravated by the active generation of rock- and mine- acid drainage (Oyarzun *et al.* 2012). Also, agricultural activity contributes with nitrate and other pollutants to surface- and ground-waters, further affecting the quality of the water resources.

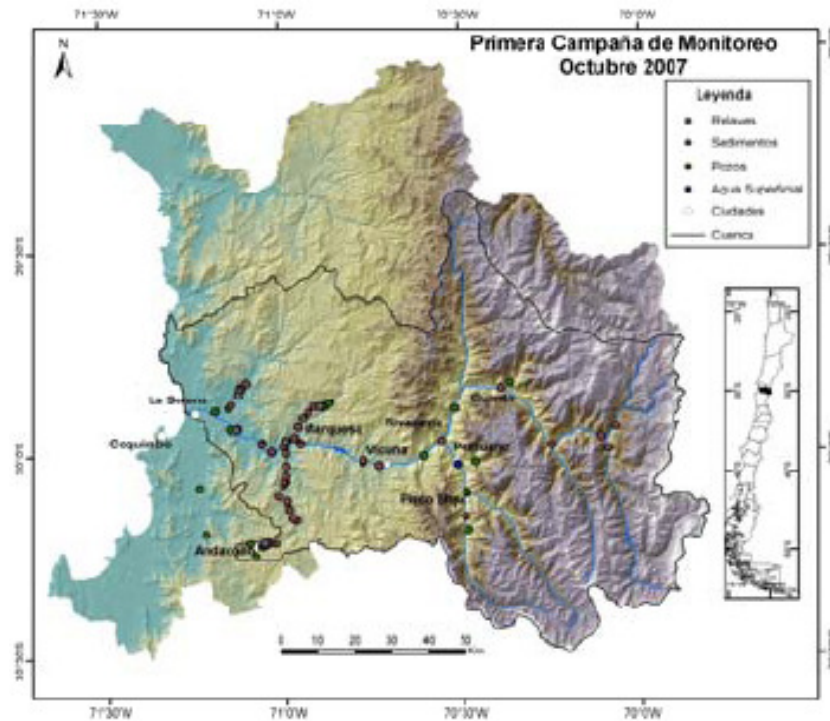


Figure 4. Monitoring points in the River Elqui (Chile)

Stakeholder involvement in Chile: Regional Roundtable for Water

Conditions for involvement at the national level were not so favourable in Chile. On the one hand, the main partner was based in La Serena (Coquimbo Region) far away from Santiago with less developed links at the national level. On the other hand, it was genuinely more difficult to reach the attention of high-level policy makers and administrators within what is still a much centralised policy-making culture. Nevertheless, the project partners managed to organise three meetings of the National Working Group to discuss the outputs of the project that were attended by members of the national administration (DGA, SERNAGEOMIN, SAG, COCHILCO), mining and agricultural consultants and stakeholders from the Coquimbo region.

Contrary to the situation in Peru and Bolivia, the context did not allow the direct establishment of a catchment-working group for the management of mining impacts in the river Elqui linked to the project, and initially there was no stakeholder consultation process that we could join. This was caused by the particular stakeholder dynamics of the catchment, but also by the general lack of consultation for water management in the country. CAMINAR stakeholder involvement in Chile had to proceed through a patient process of direct interaction with stakeholders through the organisation of thematic events and a number of research activities (e.g. participation in environmental impact assessment).

As a first step, the group performed a thorough analysis of actors involved in the use and management of water resources, environmental protection and mining activities. Three types of actors were identified:

1. Government: Regional representatives of national ministries of agriculture, mining and health; regional offices of a number of services such the Direccion General de Agua (water), Comision Nacional de Medio Ambiente (environment) and Servicio Nacional de Geologia y Minería (geology); regional government and municipalities.

2. Non-Governmental actors: Most of the interested stakeholders were in this group, including irrigators (Juntas de Vigilancia), farmers associations, rural water services, media and the wider community.
3. Companies: Water company, agricultural businesses and mining companies.

Engaging the private sector proved difficult. With the exception of two companies, the sector did not want to have an active participation nor share information. One additional difficulty to engage all these stakeholders was the fact that it is always the same actors who are requested to participate in regional initiatives. Civil servants and private sector employees do not have time available to participate, even if they see the value in engaging with a project like CAMINAR. Thus, the project developed an active strategy of collaboration with other regional activities also oriented to improve water management.

The Mesa Regional del Agua (Regional Water Roundtable) provided the best opportunity for stakeholder consultation in the River Elqui. This was an initiative of the Ministerio de Obras Publicas (public works) through the Direccion General de Aguas (water management) in several regions of the country including Coquimbo. They had the objective of increasing the participation of regional actors in the policy decisions and water resources planning at catchment level to improve the management of infrastructure and the control of use of resources in the absence of a legal entity in charge of these duties. Luckily, CAMINAR local partners were contracted to coordinate the initiative in the Coquimbo region during the last year of the project, involving more than 50 regional actors in discussions about the management of water resources in the region. Participation in these discussions provided a framework to share the findings of the project relevant to the management of the Elqui catchment.

Conclusions

Overall, the CAMINAR project was very successful in establishing stakeholder dialogue processes in arid catchments affected by mining. It was not so successful in impacting national policies, although this was expected from the beginning.

In Peru, the existence of the Grupo de Dialogo as an independent forum provided a good platform for discussion with national actors, which produced a policy-influencing document backed by key stakeholders. Peru has a vibrant scene of NGOs and community organisations ready to mobilise for political objectives. At local level, the legitimacy provided by the legal backing of the Regional Government empowered the Technical Group for the Chili River. Although the Technical Group could be considered a full success, it required a number of exceptional circumstances; external independent funding, the active agency of organisations with a high degree of local support and an absence of insurmountable conflicts. In Bolivia, the project maintained an intensive dialogue with national authorities thanks to the already existing relationships. Here the volatility of the administration was a severe limitation. The project was more successful at the local level where it influenced the Prefectura and established deep links with local communities. The project benefited from the traditions of participation at this level of government. However, a critical factor to gain local legitimacy was the fact that the partners were seen as objective actors with access to knowledge and independent from local finance. Chile turned out to be the country with the context less conducive to stakeholder involvement. National level policy-making is elitist and centralised, and as such, difficult to influence. At local level, recent history has not supported stakeholder involvement and there is no legal requirement for it. The success of the Regional Roundtable shows the conditions are ready for a change.

One commonality in the case studies was the reluctance of mining companies to engage in these processes. Unless miners foster the creation of independent river-basin organisations and contribute honestly with their knowledge of resource management, they will find it increasingly difficult to obtain the social licence to mine.

Acknowledgements

The project CAMINAR (contract no. INCO-CT2006-032539) was co-funded by the European Commission through its Sixth Framework Programme for International Cooperation. This paper does not represent the policy or opinion of the funders.

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