

Managing Sustainable Development in Competitive Legal Frameworks for Mining: Argentina, Chile and Peru Experiences

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The integration of the concept and tools for environmental and social management of mineral development into legal frameworks for mining is posing new challenges and proving to be a complex task for law and policy making in the mining sector. In the context of developing economies, which are in dire need of alternatives to foster development, a major challenge lies in reconciling short-term demands for competitiveness in order to attract investment, with the longer-term objectives of environmental protection and social development. The purpose of this paper is to offer an insight into existing practices followed by selected Latin American countries that have been highly successful in attracting investment in recent years, with a view to meet such a challenge.

The paper reveals that efforts being undertaken strive to accommodate sustainability concerns within highly competitive legal frameworks for mining, by emphasising the concept of legal certainty and the incorporation of environmental (and eventually social) regulation, and public participation mechanisms on a gradual basis. With regard to legal tools, the agenda is mainly environment-driven, through the adoption of compulsory Environmental Impact Assessments as a core environmental management tool. Moreover, developments for the assessment of the social impacts of mining, as well as enhanced mechanisms for public involvement are slowly being introduced, with Peru providing a leading example. Notwithstanding the positive nature of these developments, much more needs to be done in order to shift the emphasis from restoration to prevention, strengthen mechanisms for compliance, accommodate inconsistent mineral law provisions, integrate the full mine life cycle into environmental and social management tools, fully assess socio-economic impacts, improve access to information and ensure meaningful community participation, in order to move forward toward a more mature and integrated system for the development of mineral resources in a sustainable manner.

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I. Introduction

From the late 1980's onwards, the main driving force behind legal reform in the minerals sector has been the need to establish competitive conditions to attract private capital investment, within a context of global liberalisation and market-based systems for the allocation of resources.¹ Generally speaking, law reform has aimed at expanding market economies, establishing a climate of stability and predictability in order to provide the conditions conducive to business activity and increase foreign investment in the economy.² In the minerals sector, although differing widely from country to country, some general trends have been evident in developing countries. These trends include a move towards reducing equity requirements for governments and nationals, decreasing taxation levels,³ replacing outdated laws, improving the efficiency of the administrative process through streamlined application and approval procedures, reducing conditions open to the exclusive discretion of governments, improving title management, strengthening security of tenure and enhancing the transferability of mining rights.⁴

The process of reform has been particularly dynamic and profound in many Latin American countries, and has been a critical factor in determining the major success of the region in driving global exploration expenditures.⁵ This process has meant a substantial departure from previous law and policies shaped in the context of the New International Economic Order and the strong assertion of the principle of permanent sovereignty over

¹ Mining is a set of operations aimed at the exploration, discovery and extraction of minerals of economic value. In large-scale mining –on which this paper will focus- large capital investment requirements, coupled with attendant risks much higher than for other industries, has led to an industry structure dominated by very large international mining companies capable of spreading risks over geographic and commodity areas. See Bosson, R. and Varon, B., *The Mining Industry and the Developing Countries* (The World Bank: Oxford University Press, 1977)

² See a. Seidman, A., Seidman, R. and Wälde, T. 'Building Sound National Legal Frameworks for Development and Social Change'; b. Webb, D., "Legal System Reform and Private Sector Development in Developing Countries", and c. Shihata, I., "Preface. Good Governance and the Role of Law in Economic Development", in Seidman, Seidman, and Wälde (eds.) *Making Development Work: Legislative Reform for Institutional Transformation and Good Governance* (London: Kluwer Law International, 1999) at p. 3, p. 33 and xvii-xxvi, respectively.

³ Barberis, D., *Negotiating Mining Agreements: Past, Present and Future Trends* (London: Kluwer Law International, 1998).

⁴ See a. Otto, J., "Foreword: The Changing Regulatory Framework for Mining Ventures", (1996) *Journal of Energy & Natural Resources Law*, vol. 14 N° 3, at p. 251. See also b. Bastida, E., "A Review of the Concept of Security of Mineral Tenure: Issues and Challenges", (2001) *Journal of Energy and Natural Resources Law*, Volume 19, N° 1, 31-43.

⁵ Sanchez Albavera, F., Ortiz, G. and Moussa, N., *Mining in Latin America in the Late 1990s* (Santiago: CEPAL/ECLAC Natural Resources and Infrastructure Division, 2001). Exploration expenditures in the region have increased from less than US\$ 200 million per year by the end of the 1980s (basically concentrated in Chile), to US\$ 1,170 million by 1997, equating 29% of world investment. Although global exploration investment has slumped thereafter as a result of the Asian financial crisis that later affected other countries, and lower metal prices, the Latin American region has remained the most favoured location from 1998, by keeping a similar proportion of total expenditures (29%). By 2001, spending in the region amounted to US\$ 576 million. From 1990 to 1997, mining investment (including exploration) in Argentina, Brazil, Chile, Mexico and Peru reached US\$ 17,379 million, 51% in Chile, 12% in Peru, and 10% in Argentina. In these three countries, investment was much higher during the 1990s than in previous decades. These figures have been reproduced from the annual survey of the exploration budgets of the world's main mining companies carried out by the Metals Economic Group. See also Moon, C., "Mineral Exploration 2001 –a Global Review-", *Mining Journal* Volume 338 N° 8674, London, March 1, 2002, pp. 4-6.

natural resources.⁶ These provided the grounds for forced-upon negotiations and large-scale nationalisations, as well as the creation of State enterprises in Latin America.⁷ Amongst other more general factors as changing perceptions on the role of the private sector and the market, the drop of commodity prices in the 80's combined with constraints to afford the service of foreign debt, and reduction in the flow of funds towards the region made difficult for State enterprises to carry on with their business. Therefore, export-oriented mineral projects turned into an attractive option to generate foreign exchange to pay for essential imports and to service debts. Further, by encouraging private investment, governments expected to stimulate economic growth and thereby increase employment and bolster regional development.⁸

Chile took the lead and set up the basis for the reform of the mining sector in the early 1980s far ahead of the rest of the countries in the region. Accelerated development of mineral resources and a focus on private investment to undertake mineral development were the key economic foundations of the reform.⁹ Throughout the 1990s, most Latin American countries have promoted policies aimed at the fostering of an enabling environment for private mining development and the enhancement of regional mining competitiveness as reflected in regional instruments relating to the mining sector, and a wave of reform of the legal frameworks for mining.¹⁰ In line with international trends, the return from a model of State intervention to the traditional model of mineral tenure by strengthening private mining rights and security of tenure, streamlining procedures and minimising State interference have been the thrust of reform efforts throughout the region. This model reflects the view of traditional development regimes, which concentrate on controlling the allocation of resources in order to promote economic growth.¹¹

⁶ The principle of permanent sovereignty over natural resources was introduced in the United Nations Assembly by initiative of Latin American countries, especially Chile, in the early 1950s. It was meant to express the widespread perception of inequitable distribution of benefits and wealth, vis-à-vis the United States. See Schrijver, N., *Sovereignty over Natural Resources. Balancing Rights and Duties* (Cambridge, Cambridge University Press, 1997), at p. 36. At the core of the principle was the recognition of the effective power of a State to control and dispose of its natural wealth and resources for the benefit of its own people.

⁷ Full nationalisation of foreign copper companies whose capital was transferred to the State-owned copper corporation (Codelco in its Spanish acronym) in Chile, and of Cerro de Pasco Corporation in Peru (1974) are notable examples in this regard.

⁸ Wälde, T., *Investment Policies and Investment Promotion in the Minerals Industries* (Dundee: CEPMLP Professional Paper PP2, 1992).

⁹ It is important to note that the World Bank has proposed the Chilean Mining Code as a model for the reform of mining laws throughout the Latin American region. In this sense, the Peruvian Mining Law, the Bolivian Mining Code, and the modifications to the Argentine Mining Code are all inspired more or less by the "Chilean Model". This regime has even been proposed as a model beyond Latin America, and some of its concepts have been adopted in the reforms introduced, *inter alia*, in Madagascar, Mongolia and China. See Naito, K., Remy, F. and Williams, J., *A Comparative Review of Legal and Fiscal Frameworks for Exploration and Mining: Best Practices* (London: The Mining Journal, 2001)

¹⁰ See a. Economic Commission for Latin America and the Caribbean (ECLAC), "La Havanna Declaration", *Proceedings of the Regional Seminar on the Modernisation of the Mining Legislation in Latin America and the Caribbean Region*, November 14-16, 1994. See also b. the Declaration of Santiago issued by the Mines Ministers of the Americas Annual Conference ("Conferencia Anual de Ministros de Minería de las Américas", "CAMMA") in December 1996, gathering the conclusions of the first annual conference held in Santiago de Chile on 15 May 1996. See also c. The World Bank, *A Mining Strategy for Latin America and The Caribbean* (Washington D.C.: The World Bank, 1996) at xviii.

¹¹ See International Institute for Environment and Development, *National Strategies for Sustainable Development: Experience, Challenges and Dilemmas*, 6 November 1998, available at <http://www.poptel.org.uk/nssd/index1.html> (last visited 9 April 2002).

During the same period, a second driver of legal reform in the sector has been the rising environmental awareness of the consequences of development, bringing in the idea that the environment has to be systematically considered in economic and political decision-making at the policy, planning and management levels. In most Latin American countries, the environmental agenda had remained a low priority faced to their political and economic crisis throughout the 1980s.¹² Only since the 1990s have trends and developments in international law, increasing concerns for the negative impacts of mining raised by booming activity, the privatisation of State mining companies,¹³ practices (and requirements) brought by international organisations involved in legal reform, as well as the same objective to provide clear, stable and predictable rules of the game for private investment provided the context and the impetus for the emergence of environmental regulation in the region.¹⁴ Both the objective of articulating legal systems that reflect environmental concerns, together with a pressing need to draft competitive legal frameworks for investment represent a typical pattern of legal reform in the sector.

Over the years the expansion of the activity has been coupled with growing disenchantment, not only on the environmental, but also on the socio-economic impacts and the benefits that mining was purported to bring about, particularly in local communities where projects take place.¹⁵ The integration of the environment in decision-making processes is only but one aspect working towards the sustainability of development.¹⁶ There is increasing consensus in the mining sector on the need to develop policy frameworks that ensure that mineral wealth is captured and creates lasting benefits for local communities and the broader population, and that investment turns into opportunities for sustainable development.¹⁷ As such, sustainable development seeks to integrate environmental and development concerns “to ensure that it meets the needs of

¹² See MMSD – Regional Partner in South America, *Draft Regional Report South America for MMSD*, Chapter 2, January 2002 at www.mmsd-la.org, page 19 (last visited 9 April 2002).

¹³ A notable counter-example to the trend of privatisation of State mining companies is Codelco (Chile), the first copper producer world-wide. It is 100% State-owned.

¹⁴ In Peru, see Pulgar Vidal, M., “Las Regulaciones Ambientales para la Actividad Minera en una Política de Fomento a las Inversiones en el Perú”, in *Consideraciones de un Régimen Jurídico Ambiental para la Minería en la Argentina*, Estudio analítico N°5 – 1995, Chapter 6, available at http://www.farn.org.ar/docs/p04/publicaciones4_f.html. As expressed by the Chilean Copper Commission, the process of enacting environmental regulations “has been a response to an international preoccupation ever greater for the environmental issues, expressed in the agendas of international organisms as the United Nations and the World Bank”, <http://www.cochilco.gov.cl/home/eng/frameset-sustentab.htm> (last visited 9 April 2002).

¹⁵ The Panguna copper mine in Bougainville, Papua New Guinea provides an emblematic example of serious social disruption arising from the development of mineral resources. Started in 1972, it was shut down by community strikes and continuous armed rebellions in May 1989. By now, local communities demands may range from information on the project, through to partnership, or even be an outright objection to the mineral development, irrespective of governmental decision and regulations or authorizations given to the company. A number of projects as Yanacocha, Antamina and Tambo Grande in Peru (where mining land-use often competes with agricultural lands owned by native or rural communities and small landholders) portray these conflicts. See Gonzales Guerra, M.C., *Community Relations in Mineral Development Projects*, Dissertation submitted for the Degree of Master of Laws in Natural Resources Law and Policy at the University of Dundee (Dundee, 2001). See a critical appraisal of investment policies and a proposal for a sustainable development strategy in the mining region of Antofagasta in Chile in Cademartori, J., “Impacts of foreign investment on sustainable development in a Chilean mining region”, 2002 *Natural Resources Forum*, 26, 27-44.

¹⁶ See in general terms MMSD, *Breaking New Grounds* (2002), available at www.iiied.org/mmsd, p.336.

¹⁷ *Ibid.*, at p. 24.

the present without compromising the ability of future generations to meet their own needs".¹⁸ It proposes an emerging framework involving an integrative approach to human development, considering social, economic and environmental objectives. All in all, sustainable development entails a rethinking of development as has been understood so far, focusing primarily on economic growth.

In general terms, the Latin American region lacks a comprehensive vision of sustainable development embracing all its aspects, despite the fact there have been significant developments in terms of environmental legislation and democratisation.¹⁹ This paper draws on some of these aspects. It deals with the integration of the concept and tools for environmental and social management of mineral development, including the provision of appropriate mechanisms for public involvement in the context of mineral investment promotion, taking into consideration the particular questions raised at every stage in the mine life cycle (exploration, development, mining, rehabilitation, post-mining), as they are instrumental for the development of mineral resources in a sustainable manner. For the purposes of this paper "sustainability" will be understood in this more restricted sense.²⁰ Far from intending to be exhaustive, the aim of the paper is to offer the reader an insight into existing practices and major challenges involved in integrating sustainability into traditional, investment-driven, legal frameworks for mining.

The paper will concentrate on Argentina, Chile and Peru. These countries have succeeded in drafting regimes for attracting investment, and are faced with the challenge to improve, strengthen or introduce environmental and social regulation and public participation mechanisms -and also provide a more comprehensive vision together with instruments for sustainability-. Moreover, mining (in the case of Chile and Peru) is, or has the potential to be (as in the case of Argentina), a key contributor to the respective economies.²¹

In order to accomplish its task, Section II will introduce, although briefly, some basic concepts of a workable framework for sustainability in mining. It intends to identify some criteria to guide the analysis of the specific aspects of sustainability relevant for this paper. Section III will look at the

¹⁸ World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), at p. 43.

¹⁹ See MMSD – Regional Partner in South America, *supra* note 12, Chapter 3, at pp. 26 and 32.

²⁰ See some further elaboration on the concept of sustainable development and in mining in Section II *infra*. The economic dimension of sustainability, as well as issues of economic and social distribution, as described above, remain outside the scope of the paper. Questions of land-use and indigenous peoples, as well as access to justice (within the analysis of public participation mechanisms) have not been included for analysis in this paper. For a comprehensive overview of the status of sustainable development policies in the Latin American region, see the thorough report prepared for the project "Mining and Minerals of South America in the transition to sustainable development" as a part of the MMSD project, *supra* note 12.

²¹ In Chile, mining is the single most important economic and productive activity in Chile. In 1998, it provided roughly over 8% of the GDP and 43% of the total value of exports. See Astorga, T., *The Mining Sector of Chile*, http://www.minmineria.cl/downloads/3doc_1.doc (last visited 9 April 2002). Peru's minerals production accounts for about 5% of the GDP. Approximately 47% of its total export revenues come from the minerals industry. See World Bank, *supra* note 10 c., p. 5. In contrast to Chile and Peru, mining of metallic and industrial minerals in Argentina accounted for less than 0,1% of GDP by 1996. However, exploration investment has boomed since 1993. By 1998 there were approximately 83 foreign mining companies operating in the country, conducting intensive exploration efforts. See Dirección de Inversiones y Normativa Minera, *Actividad Exploratoria en la Argentina* (November 1999). This is particularly important in the view of the pervasive economic and political crisis that has imploded at present (2002) and has left the country with reduced alternatives for development.

incorporation of sustainability into constitutional and legal frameworks in the countries cited, and will also sound out regional trends. It will revise the scope, enforcement mechanisms and provisions regarding social impact assessments and public involvement provided by the main regulatory instruments (basically, the Environmental Impact Assessment), and the relationship between mineral law and environmental regulations. It will also suggest a few challenges ahead. Finally, Section IV will present a set of conclusions on the fundamental issues involved.

II. A Workable Framework for Sustainability in Mining: The Berlin Guidelines

The sustainable development of a natural resource that is depletable as it is mined has often been seen as an oxymoron. Furthermore, the traditional manner in which mining has been carried out for centuries has tended to emphasise short-term gains, with no consideration for the negative impacts on the environment and communities where the project takes place, not only during operations, but also beyond mine closure. Increasing awareness for the economic, social and environmental impacts of development, coupled with technological advance, highlight the idea that, if well managed, mining can have a key role to play in creating lasting benefits for local communities and the broader population. Although a model of sustainable minerals development is far from well defined, there is an understanding that it involves at least the following dimensions:²²

- The environmental dimension emphasises that, for yielding sustainable results, mineral development has to safeguard the natural environment and the stock of natural resources, to protect life-support systems and the biodiversity of nature;
- The social dimension underscores that development can be sustainable in social and cultural terms if there is a fair distribution of benefits and costs of mining, and provided all the relevant actors, including local communities affected by a mining project, are involved, and their views are taken into account in decision-making through appropriate processes for participation and dialogue;
- The economic dimension highlights the role of creating and sustaining mineral wealth in maximising human living standards. An important issue is substitution, and in this sense depletion of a resource could be compatible with sustainable development if

²² Eggert, R., "Sustainable Development and the Mineral Industry", in Otto, J and Cordes, J. (eds.), *Sustainable Development and the Future of Mineral Investment* (Paris: United Nations Environment Program, 2000) at 2-2 and 2-3.

the interest from the revenues generated from mining are reinvested in building human and social capital, or in other sustainable activities.²³

Mining in the context of sustainable development must integrate sustainability criteria into all the phases of the mining project from exploration to development, operation, and extraction, closure and even beyond. The incorporation of closure and post-closure phases into the mine life cycle entails a significant shift in thinking. The usual practice consisted of abandoning the mine as soon as it ended its productive cycle, passing the burden of environmental and social disruption on to the communities where projects are located, and future generations (or, otherwise, closing remote mining towns together with the mines). Closure should be planned from the outset of the project, ensuring that the land and structures can be restored for alternative uses after the mine closes, and that an alternative economic base has been developed.

One of the greatest challenges facing the sector is working towards effective governance, which requires some redefinition of roles, responsibilities and the introduction of new instruments for change.²⁴ Governments have a crucial role to play in designing and enforcing a solid framework for the effective utilisation and management of mineral resources in ways that balance environmental, social and economic interests so as to ensure investment turns into opportunities for development. At present, while a few countries world-wide have partly defined a framework to address some sustainability aspects, in most of them these concepts remain embryonic.²⁵

There are existing sources of governance guidance for mineral resources development that should be taken into account.²⁶ Agenda 21, the Action Plan of the Rio Conference, does not contain any specific chapter dealing with the minerals sector, although a host of provisions are of direct or indirect relevance thereto.²⁷ The "Berlin Guidelines" provide one of the most useful guidance for mining sector governance in the context of sustainable development.²⁸ Drafted in 1991 as the outcome of the Round Table Conference organised by the United Nations and the German Foundation for International Development, they served as a basis for the first edition of the 1994 Environmental Guidelines for Mining Operations prepared by the UN Department of

²³ This position endorses a "soft" view of sustainability whereby different forms of capital (natural, manufactured, human, social, financial) are substitutable. See MMSD, *supra* note 16, at p. 22.

²⁴ See MMSD, *supra* note 16, at p. 336. The World Bank has recently launched the Extractive Industries Review, a process aimed at producing a set of recommendations (scheduled by September 2003) that will guide involvement of the World Bank Group in the sectors of oil, gas and mining. See <http://www.eireview.org/> (last visited 15 May 2002).

²⁵ Otto, J., "Institutional Frameworks: Process and Implementation" in Otto and Cordes (eds.), *supra* note 13.

²⁶ There is, though, a need to coordinate existing efforts so as to avoid the proliferation of competing and overlapping schemes and criteria. See MMSD, *supra* note 16, 353-355.

²⁷ See Pring, G., Otto, J. and Naito, K., "Trends in International Environmental Law Affecting the Minerals Industry", 17 *Journal of Energy and Natural Resources Law*, Volumes 1 and 2, 39-55 (Part I) and 151-177 (Part II), 1999. See also Pring, G., *International Law and Mineral Resources* (UNCTAD, 2000)

Economic and Social Development and its Commission for Sustainable Development, and the United Nations Environment Programme (UNEP) at the request of a number of countries looking for environmental guidance. The second edition of the Guidelines (2002) reflected the changes occurring within the mining sector and with sustainable development particularly in the evolution of legal, fiscal and regulatory policies, and a growing awareness for developing tools to manage the social impacts of mining. The Berlin Guidelines provide a model, rather than a blueprint, for sound and sustainable management of mineral development, and should be amended and improved according to the specific needs of each country.²⁹

The Berlin Guidelines provide some criteria that are relevant for the analysis conducted in this paper, as they acknowledge the need to:³⁰

- *recognise environmental management as high priority, notably during the licensing process and through the development and implementation of environmental management systems. These should include early and comprehensive environmental impact assessments, pollution control and other preventive and mitigative measures (among other measures and procedures);*
- *recognise the importance of socio-economic impact assessments and social planning in mining operations from the earliest stages of project development;*
- *ensure participation of and dialogue with the affected community and other directly interested parties on the environmental and social aspects of all phases of mining activities;*
- *encourage long term mining investment by having clear environmental standards with stable and predictable environmental criteria and procedures.*

Consistently, the Berlin Guidelines state that *if sustainable development is defined as the integration of social, economic and environmental considerations, then a mining project that is developed, operated and closed in an environmentally and socially acceptable manner could be seen as contributing to sustainable development.*³¹

²⁸ *Berlin II Guidelines for Mining and Sustainable Development* ("Berlin Guidelines") (United Nations, 2002), available at <http://www.mineralresourcesforum.org/Berlin/index.htm>.

²⁹ The Global and Regional Reports elaborated by the MMSD provide invaluable governance guidelines in the sector. See *supra* note 16.

³⁰ See Fundamental Principles for the Mining Sector, in Berlin Guidelines, *supra* note 28, at p. 4. Please note that this paper focuses on the integration of the concept and tools for the environmental and social management of mineral development, including the including the provision of appropriate mechanisms for public involvement, as mentioned *supra* in section I.

³¹ See Berlin Guidelines, *supra* note 28, at p. 5.

The next section explores the efforts undertaken by Argentina, Chile and Peru to achieve the goal of integrating sustainability into their legal frameworks for mining. For that purpose, it starts by examining regional initiatives in the sector and basic provisions in constitutional frameworks. Later, it focuses on the analysis of the main regulatory instrument to integrate sustainability (basically, the Environmental Impact Assessment, "EIA"), and looks at its scope of application, phases of the activity that are covered thereby, and enforcement mechanisms. It also seeks to identify the method and extent to which social (or socio-economic) impact assessments and opportunities for public involvement are recognised under legislation. Finally, it examines the interfaces between the licensing process to acquire mining rights and environmental regulation, and suggests a few challenges ahead.

III. Trends towards the Integration of Sustainability

1) REGIONAL INITIATIVES AND CONSTITUTIONAL FRAMEWORKS

Latin American countries have embraced the challenge of sustainable development, as acknowledged in the 1994 Summit of the Americas, and reinforced in the action plan approved in the 1996 Declaration of Santa Cruz de la Sierra.³² These expressly recognise the task of creating an environmentally responsible and socially sensitive minerals and metals industry, bearing in mind the key role of mining in the development of the Americas.³³ They also emphasise the countries' efforts towards the implementation of sustainable development as related to economic activities, and highlight the need to incorporate sustainable development concepts into the design and formulation of public policies from the very outset. Consistently, they promote the reform and modernisation of national laws, as appropriate, to reflect sustainable development concepts, and the strengthening and development of national mechanisms for effective enforcement of applicable international and national laws and provisions.³⁴ Ratification by Argentina, Peru and Chile of core international instruments embracing sustainable development reflects their commitment to such a goal.³⁵

³² 1996 Declaration of Santa Cruz de la Sierra. Plan of Action for the Sustainable Development of the Americas signed and approved by the elected heads of state and government of the Americas at the Hemispheric Summit of the Americas on Sustainable Development held in Bolivia on December 7-8, 1996, See <http://www.oas.org/usde/summit/bolivia%20declaration.htm>. The high level of adherence of the countries of the Southern Cone to international environmental agreements has been highlighted. See Contributions Formulated at the Preparatory Meeting of the Southern Cone for the World Summit on Sustainable Development Inclusion in a Latin American and Caribbean Regional Platform, in <http://www.eclac.org/> (last visited 25 September 2001)

³³ Action Plan, Initiative II.5.

³⁴ *Ibid*, 10. g. See a. Barrera-Hernández, L., "The Legal Framework for Indigenous Peoples' Participation in Oil & Gas Development Decision-Making in Latin America. The Cases of Argentina, Colombia and Peru", in Zillman, D., Lucas, A. and Pring, G. (eds.), *Human Rights in Natural Resource Development - Public Participation in the Sustainable Development of Mining and Energy Resources* (Oxford: Oxford University Press, 2002). See b. Novoa, L., "Sustainable Development and its Relationship with Mining and the Law", 1997 *Rocky Mountain Mineral Law Foundation* (RMMLF), 7-19.

³⁵ For example, all the three countries are parties to the 1992 Convention on Biological Diversity, 5 June 1992, 31 ILM 818 (1992); 1972 Convention for the Protection of the World Cultural and Natural Heritage, 16

Moreover, there is a clear trend towards the incorporation of the right to a “healthy” and “balanced” environment, suitable for “human development”, together with public participation rights, in virtually every Constitution in Latin America. This is coupled with the enactment of subsequent regulations aimed at the integration of the environmental dimension into decision making. In this regard:

The **1853 Constitution of Argentina** (as reformed in 1994) has adopted the concept of “human development” and the principle of intergenerational equity in section 41 which grants any inhabitant the right to enjoy a healthy and balanced environment, suitable for human development, so that productive activities meet the needs of the present without compromising the needs of future generations to meet their own needs. Such provision is also a source of obligations both for individuals (who *have the duty to preserve the environment*), and for the State which *will provide for the protection of this right, the rational utilisation of natural resources, the preservation of natural and cultural heritage, and biological diversity, and environmental information and education...*³⁶ Consistently, section 75 N° 19 that the Congress shall provide for human development and progress with social justice.

The **1993 Political Constitution of Peru** recognises human protection and respect for human dignity as the supreme goals of society and the State. Section 2, 22 thereof sets forth that “*every person has the right...to enjoy a balanced environment suitable for the development of life,*” while section 67 stipulates that the State will establish the national environmental policy, and it will promote *sustainable use of its natural resources*. In order to implement this constitutional provision, the 1997 Organic Law of Sustainable Use of Natural Resources N° 26821 is aimed at “*promoting and regulating the sustainable use of renewable and non-renewable natural resources, by setting forth an adequate framework for encouraging investment, seeking a dynamic equilibrium between economic growth, the conservation of natural resources and the environment, and the integral development of the human being*”.³⁷ Sections 2, 4 and 5 of the 1993 Political Constitution acknowledge the right to information, while the 1990 Code of the Environment and Natural Resources

November 1972, 11 ILM 1358 (1972); 1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, 11 ILM 963 (1972); the Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 19 ILM 11 (1980). Argentina and Peru are also parties to the Convention N° 169 concerning Indigenous and Tribal Peoples in Independent Countries adopted on 27 June 1989 by the General Conference of the International Labour Organisation at its seventy-sixth session, *entry into force* 5 September 1991. At a regional level, all the countries are parties to the American Convention on Human Rights (“San José de Costa Rica Covenant”, O.A.S.Treaty Series N° 36, 1144 U.N.T.S. 123 entered into force July 18, 1978, *reprinted in* Basic Documents Pertaining to Human Rights in the Inter-American System, OEA/Ser.L.V/II.82 doc.6 rev.1 at 25 (1992).

³⁶ The 1853 *Constitución de la Nación Argentina* as reformed in 1994 (“Argentinian Constitution”) allows room to public participation in decision-making by adopting the mechanism of “citizen initiative” whereby citizens are allowed to propose and submit law proposals (section 39), and “citizen consultation” whereby a draft law can be subject to either binding or non binding consultation.

³⁷ 1993 *Constitución Política del Perú* (Peruvian Constitution). Organic Law of Sustainable Use of Natural Resources N° 26821, Official Gazette 26 June 1997, Section 2.

recognises the right of any person to participate in the definition of policies and the adoption of actions related to the environment and natural resources, at a national, regional and local level.³⁸ The 1997 Organic Law of Sustainable Use of Natural Resources also states that citizens have the right to be informed, and to participate in the definition and adoption of policies related to the conservation and sustainable use of natural resources.³⁹

The **1980 Political Constitution of Chile** enshrines in Article 19 N° 8 the right to live in an environment free of pollution. By the same token, it stipulates the duty of the State to ensure that such a right is not affected, and to *observe* the preservation of nature. Such a formula, whereby environmental provisions are restricted to nature and pollution, has later been supplemented by a broader interpretation of what “environment” is, as the 1993 Law of Environmental Basis brings a “human dimension” and the concept of sustainable development, to the traditional environmentalist approach adopted by the Constitution.⁴⁰ This same norm provides for mechanisms on participation.⁴¹

Regional initiatives in the mining sector, such as the Mines Ministers of the Americas Annual Conference (CAMMA in its Spanish acronym) have echoed current concerns. The aim of the association has shifted from investment attraction as an overall aim in the 1996 Declaration of Santiago, towards promoting sustainable development in the Latin American region in the second conference held in Arequipa (1997). The 2000 Declaration of Vancouver contains a number of recommendations for the implementation of sustainable development.⁴² These include supporting and strengthening community capacity to participate in the assessment of opportunities and challenges in mining projects, ensuring the full use of legal mechanisms for public participation; and considering mine closure, and a formal plan for closure, from the outset of each project in order to enable mining to contribute to sustainable development. Although these initiatives are not binding, they reflect the view that the region embraces the challenge of sustainability in the mining sector. Actual implementation is, however, somehow patchy and mainly focused on environmental aspects.

³⁸ Environment and Natural Resources Code, Legislative Decree N° 613, 8 September 1990, Section VI, Preliminary Title.

³⁹ Section 5. See also the Law of Citizen Rights of Participation and Control N° 26,300 that comprises, *inter alia*, the right of participation in Constitutional Reform and draft law initiatives, and the right of control on dismissal and removal of public officers.

⁴⁰ 1980 *Constitución Política de la República de Chile* (“Chilean Constitution”); Law of Environmental Bases N° 19,300, Official Gazette 9 March 1994. See Sapag, A., “Evolución del Derecho Ambiental Chileno” in *RMMLF* 2001.

⁴¹ See *infra* 3) (v)

⁴² 1996 Declaration of Santiago, I Annual Conference of Mining Ministries of the Americas, Santiago, December 1996; 1997 Declaration of Arequipa, II Annual Conference of Mining Ministries of the Americas, Arequipa, December 1997; 2000 Declaration of Vancouver, V Annual Conference of Mining Ministries of the Americas, Vancouver, October 5 and 6, 2000, available at www.camma.org.

2) A CENTRAL/SECTORAL APPROACH TO ENVIRONMENTAL REGULATION

Constitutional provisions have been implemented essentially by means of two main approaches, as they relate to mining: either by application of a general environmental law applicable to every productive activity (“central approach”), or by the enactment of specific sectoral provisions (“sectoral approach”).

- Chile has adopted a central framework environmental law (the previously mentioned 1993 Law of Environmental Basis) which is therefore applicable to mining.
- Argentina has adopted a sectoral approach. Being a federal country, special emphasis has been placed on coordinating national and provincial powers regulating environmental matters in the mining sector. This has been done by enshrining environmental regulations in the all-embracing Mining Code, which is applicable nation-wide, thus achieving great uniformity among the provinces in the application of environmental regulations to the mining sector.⁴³ The Mining Code acts as a management framework for the distribution of powers between federal and provincial governments,⁴⁴ not only for mineral tenure aspects, but also for environmental regulations.
- Peru had initially embraced a central approach by application of the 1990 Environment and Natural Resources Code.⁴⁵ However, firm opposition to this Code (which Chapter XII was devoted to the regulation of mineral resources) resulted in its modification, and the adoption of a sectoral approach,⁴⁶ although more recent developments suggest a move towards the implementation of a national system of environmental impact assessment.⁴⁷ The 1991 Law for the Promotion of Investment in the Mining Sector abrogated the provisions on the Environmental Code relating to the mining industry, incorporating instead a specific set of environmental rules for mining investment.⁴⁸ Similar rules were also incorporated into the Single Revised Text of the General Law of Mining, which constitutes the core piece of environmental regulation for mining in Peru.⁴⁹ The Ministry has also formulated a set of non-binding management guidelines at a national level.

⁴³ Argentinian Mining Code, Compiled Text, Decree N° 456/97, Official Gazette May 30, 1997.

⁴⁴ Di Paola, M. and Walsh, J., “Las Actividades de la Industria del Petróleo y el Gas y la Sustentabilidad”, in Walsh et al (ed.), *Ambiente, Derecho y Sustentabilidad* (Buenos Aires: La Ley, 2000), at p. 153.

⁴⁵ See *supra* note 38.

⁴⁶ Gonzales, C., “Recent Development in Peru’s Environmental Law and Policy: Its Impact on the Mining Industry”, *The Dundee Yearbook of Natural Resources Law* (Dundee: Center for Energy, Petroleum & Mineral Law & Policy, First Edition, 1997), at p. 110.

⁴⁷ Law 27446, National System of Environmental Impact Assessment, 20 April 2001.

⁴⁸ Law for the Promotion of Investment in the Mining Sector, Legislative Decree N° 708, Official Gazette 14 November, 1991.

⁴⁹ Single Revised Text of the General Mining Law of Peru (Supreme Decree N° 014-92-EM, Official Gazette 4 June, 1992), which Title Fifteen is regulated by the Supreme Decree N° 016-93-EM, Regulations for the Environmental Protection of Mining and Metallurgical Activities, Official Gazette 1 May 1993.

Consistent with these approaches, in Chile the law is administered by a central inter-ministerial environmental co-ordinating committee composed of all the ministries organised at the national level (National Environmental Commission, or Comisión Nacional del Medio Ambiente –CONAMA-) plus regional commissions.⁵⁰ In Argentina, the competent authority is either the mining authority, as occurs most frequently, or the environmental authority, as opted for by each province. In Peru, jurisdiction belongs to the Ministry of Mines, who establishes its own regulations, with an increasingly strengthened institutional role for the national environmental agency.⁵¹

A persistent concern has been placed on finding mechanisms for building up appropriate environmental institutions while maintaining a climate of predictability and stability for private investment. Regional initiatives, governmental documents and specialised literature unanimously point to the need to coordinate and harmonise jurisdictional overlapping by relevant public agencies, and enhance coordination at a local level.⁵²

3) THE EIA AS THE MAIN REGULATORY INSTRUMENT TO INTEGRATE SUSTAINABILITY

(i) SCOPE

The EIA is the most common procedure to assist the project proponent, government regulators and the public to predict and evaluate the potential impacts of a project on the environment, as well as, eventually, to identify alternatives and mitigation measures by using its conclusions as a tool in planning and decision-making. In order to increase the effectiveness of the EIA, other environmental management tools are often used, which can be integrated into the EIA. These include, *inter alia*:

- a) Environmental Management Plans, that comprise methods and procedures whereby the company will achieve the environmental and social objectives and targets as identified in the EIA; and
- b) Environmental Monitoring Programmes, that are intended to assess the environmental and social performance of the project, to demonstrate that the project complies with the objectives set out in the EIA process and with regulatory

⁵⁰ Also the Environmental Unit of the Secretary of Mining has some policy functions, see <http://www.minmineria.cl/>

⁵¹ See a. Danielson, L. “Environmental Impact Assessment for Natural Resource Projects in Latin America”, *RMMLF* 1997, Paper 8, and b. Gonzales, C., *supra* note 46. See c. Law 26410 (22 December 1994), Creation of the National Environmental Council (Consejo Nacional del Ambiente, CONAM) and Regulations, Supreme Decree N° 022-2001-PCM, 8 March 2001.

⁵² See e.g. the 2000 Declaration of Vancouver, *supra* note 42. See also MMSD – Regional Partner in South America, *supra* note 12, Chapter 3, at p. 33.

requirements, and to provide the information required for periodic review, ensuring that environmental and social protection is optimised at all stages of the project.⁵³

Argentina, Chile and Peru, as well as most other Latin American countries have adopted the EIA as the main regulatory instrument used to integrate sustainability. EIAs are rather well developed in local legal systems, being conceived as a process rather than a document and their goal is “continuous improvement”, in the project’s environmental performance, rather than just getting a permit. They treat the commitments arising therefrom as binding and enforceable.⁵⁴ In broad terms, the assessment of social impacts and the coordination of public involvement are all included in the EIA system.

All the countries under study require the elaboration of a report or study of environmental impacts, which generally speaking includes a description of the mining project and its environmental impacts, including social and/or cultural aspects, and actions to minimise, mitigate, control and/or eventually repair negative impacts. There is also a varying range of environmental management tools available (such as the Environmental Adjustment and Management Plan in Argentina; Mitigation Actions Plan, Reparation and/or Restoration Plan; Compensation Actions Plan and a Monitoring Plan in Chile). Monitoring plans are also available in Peru, where special emphasis has been placed on the adjustment and management of ongoing operations. The tool adopted for this is the Environmental Adjustment and Management Programme (“PAMA” in its Spanish acronym), applicable to on-going operations in the production and operational stage. PAMA can be the basis for a “stabilisation agreement” between the operator and the Ministry of Energy and Mines so as not to set further requirements on the operator as long as the approved programme is complied with.

Legal frameworks in the countries under study have a series of weaknesses, such as the absence of specific goals, measures and technical guidance for achieving pollution prevention in the different phases of mining⁵⁵ They also lack, or have inadequate legal tools or policies to support pollution prevention in critical areas such as closure planning, financial surety, economic incentives and public participation, as will be addressed *infra* 3) iii) and v).⁵⁶

(ii) PHASES OF THE ACTIVITY COVERED BY THE EIA

⁵³ See Berlin Guidelines, *supra* note 28.

⁵⁴ See Danielson *supra* note 51 a.

⁵⁵ Environmental Law Institute, *Pollution Prevention and Mining: A Proposed Framework For The Americas*, January 2000, Research Report available at <http://www.eli.org/>, at page 50.

⁵⁶ *Ibid.*

As explained before, any serious attempt to integrate sustainability requirements into a mining project must necessarily cover the whole life cycle of the project. This implies, on one hand, that for an EIA (and also socio-economic impact assessments) to have a legitimate position in the decision-making process, the issues and implications will need to be established during the concept phase, and particularly once exploration moves from prospecting to larger scale sampling methods. Good environmental and social management of exploration should include an Environmental Management Plan where land disturbance occurs.⁵⁷

On the closure phase of the project, this approach implies that mine closure should be planned well in advance by means of physical and social rehabilitation programmes that ensure the return of all affected areas, as much as possible, to their optimum economic value.⁵⁸

Some developments have been occurring regarding the regulation of different phases of the activity in the countries under study ever since the laws adopting the respective EIA systems were enacted.

- In Argentina, the EIA covers the prospecting, exploration, exploitation, development, extraction, storage and beneficiation phases, including those activities aimed at mine closure. They all require separate Environmental Impact Reports (“EIR”), and are reviewed separately for approval. Requirements for prospecting have been eased since the EIA system was put in place. As “prospecting” was defined neither under the Mining Code nor the environmental regulations, it was not clear what sort of prospecting was subject to the EIA process. The Supplementary Norms have specified that only prospecting work implying meaningful land disturbance requires an EIA. The regulation of the exploration phase is particularly important in Argentina, as it is estimated that approximately 75% of the territory remains unexplored.⁵⁹ For the closure phase, the operator must file another EIR, or an update or amendment of the existing one to cover it, including measures and actions aimed at avoiding environmental impacts after the closure of operations. Though the EIR must include post-closure monitoring, no formal closure plans are required, thus weakening the enforcement of these rules.
- In Chile, although “prospecting” has been included within the activities that require prior environmental impact assessment, as the term has not been defined it is still unclear what sort of prospecting is subject to EIA. By interpretation of the law, EIA would be applicable just to exploration work that can be harmful to the environment,

⁵⁷ See Berlin Guidelines, *supra* note 28.

⁵⁸ *Ibid.*

which usually, but not necessarily, occurs in advanced stages of exploration, once a specific target has been identified.⁶⁰ Although there are a few general references to the closure phase throughout the law and its regulation, as well as in Mine Safety Regulations, no formal closure plans have been established, although there is a draft law on mine closure under discussion.⁶¹

- In Peru, since the enactment of the general environmental regulation for mining activities in 1993 and through to 1998, there were no environmental requirements for exploration.⁶² As mining concessions in Peru comprise both exploration and exploitation activities (the “single concession system”), the Ministry of Energy and Mines just established regulations to file an EIS for the exploitation stage. Since 1998 it is necessary to file an Environmental Assessment (“EA”), applicable to exploration activities which create significant disturbance.⁶³ It requires the description of the project, activities to be conducted, effects, control and mitigation measures, and closure or temporary shutdown plans. As compared to the general Environmental Impact Studies, the EA requires shorter periods for approval, and there is no requirement for public hearings.⁶⁴

Closure plans must be a part of an EIA or PAMA. There is a specific non-binding document on the Guidelines for Mine Closure and Abandonment, while the Environmental Guidelines for PAMAs also include a chapter on the Closure Plan.⁶⁵ There are no requirements to incorporate pollution prevention measures as a condition for the approval of the plan.⁶⁶ There is a draft law that would establish the obligation to file a closure plan prior to starting with operations, as a specific and differentiated document from the PAMA or EIA, including a system of financial surety.⁶⁷

While the EIA mainly covers the exploitation and development phase, there have been significant developments towards refining the scope and application of environmental

⁵⁹ Mining Undersecretariat, *10 Reasons to Invest in Argentina* (2001).

⁶⁰ See Danielson *supra* note 51 a. See also a. Comité Nacional Pro Defensa de la Fauna y Flora, *Prevención de la Contaminación Minera en las Américas –Estudio de Caso Chileno–*, in Environmental Law Institute, *supra* note 55, at p. 7. b. On this topic, see also an excellent piece of research prepared by Patricia González Zenteno, *Tratamiento Normativo de la Fase Minera Post Operacional en los Países Mineros Latinoamericanos y La Planificación del Cierre* (CIID: November 1999), available at <http://www.idrc.ca/mpri/documents/cierreminas.html>

⁶¹ Thus, it is the first productive sector attempting to comply with the full cycle of a project in Chile. See <http://www.minmineria.cl/>.

⁶² See Sociedad Peruana de Derecho Ambiental, *Prevención de la Contaminación Minera en las Américas. A Case Study Regarding Peru*, in Environmental Law Institute, *supra* note 55, pp. 9/10.

⁶³ Activities must originate spills and require waste disposal action, and the disturbed area to build up more than 20 platforms over more than 10 has

⁶⁴ See Sociedad Peruana de Derecho Ambiental, *supra* note 62, at p. 11.

⁶⁵ *Ibid.* See also Gonzales, C. *supra* note 46, at p. 115.

⁶⁶ See Sociedad Peruana de Derecho Ambiental, *supra* note 62.

⁶⁷ See Gonzalez Zenteno, P. *supra* note 60 b. at p. 59, also in the Final Consolidated Report updated on December 2000, Legal Annex to a report prepared by Cochilco, *Normativa de Cierre de Faenas Mineras en Chile*, December 2000.

management tools during the exploration stage, and expanding it to the closure stage. In this regard, Peru has enacted specific regulations for the exploration phase, and guidelines for mine closure.

(iii) **ENFORCEMENT MECHANISMS**

The countries under study rely heavily on the traditional administrative (from warnings and fines to temporary and definite shutdown), civil and criminal mechanisms to enforce compliance. New approaches to enforcement, such as trusts, bonds or financial sureties to guarantee compliance have not been introduced yet. Consistently, there is no mechanism either to set up a closure plan or to enforce compliance therewith (as by means of a financial surety). In addition, the voluntary use by the mining sector of environmental management systems, such as ISO 14000, is just beginning.⁶⁸ Economic instruments, which can be used as an incentive to improve environmental management, have not yet been developed. An exception is provided by a special tax benefit set up to prevent and mitigate environmental impact -that will be deductible from income tax of up to 5% of operative costs of minerals extraction and treatment- under the Argentine Mining Investment Law N° 24196.

4) SOCIO-ECONOMIC IMPACT ASSESSMENT AS A PART OF THE EIA

The socio-economic impacts are the outcome of the interaction between the project and the social environment where it takes place.⁶⁹ The Socio-Economic Impact Assessment (“SEIA”) can be conducted either as a stand-alone document, or as a part of the EIA. In general terms, the SEIA comprises three elements: a socio-economic baseline; prediction and assessment of impacts, and mitigation and monitoring measures.⁷⁰ Although SEIAs have the potential to be the starting point for building up social monitoring programmes, they are rarely used in that wider capacity to manage the social impacts of mining throughout the life of the project.⁷¹ Ideally, the findings arising therefrom should be used to put in place “Community Sustainable Plans” to provide a framework for relationships among interest groups (the community, the company, the government) for the life of the project and into post-closure.⁷²

The assessment of socio-economic impacts is included as a part of EIAs in the countries under study. In Argentina, description and measures for mitigating the socio-economic

⁶⁸ *Ibid.*, at p. 31.

⁶⁹ See Berlin Guidelines, *supra* note 28.

⁷⁰ Ministry of Energy and Mines - Dirección General de Asuntos Ambientales, *Guía de Relaciones Comunitarias* (Community Relations Guide), January 2001.

⁷¹ MMSD, *supra* note 16, pp.225-6.

⁷² MMSD, *supra* note 16, at p. 227.

and cultural aspects must be addressed in the initial environmental impact report.⁷³ Recent policy efforts have been aimed at building up social, economic, political and environmental indicators in order to improve the application of the environmental regulations, and determine the impact of large-scale projects in local communities.⁷⁴ A similar approach has been adopted by Chile, which requires the description of the socio-economic environment, life-styles, forms of social and community organisation and customs, especially in those communities protected by special laws.⁷⁵

Like Argentina and Chile, Peru also requires the description of impacts on socio-economic resources.⁷⁶ But Peru has moved a step forward towards facilitating the application of the SEIA, as regulations in force recommend the operator to use a Community Relations Guide prepared by the Ministry of Energy and Mines (Division of Environmental Affairs). Such a Guide provides a set of guidelines for preparing a Social Impact Assessment and Community Relations Plan, and other measures aimed at an appropriate management of the relationship of companies with communities.⁷⁷ The aim of the Social Impact Study is to analyse the effects that a project has over individuals, their relationships, economy and culture, and the measures to take in order to trigger the positive impacts -by taking measures to expand the effect of aspects such as local employment and acquisition of goods-, and minimise or eliminate the negative impacts. This is achieved by assessing and/or by modifying actions; and by compensating for impacts on third parties property rights (e.g. landowners), and for damage or loss.⁷⁸

Although such guidelines are not binding, they certainly provide some insights into the trend of further developments towards the enactment of implementation rules, and the increasing use of social management tools. In this sense, similar regulations in the hydrocarbons sector in Peru *instruct* the operator to use a special “Community Relations Guide” (that is based on the one used by the mining sector), as the document of reference for undertaking a Community Relations Plan. Further, this section of the EIA is denominated “Social Impact Study” in hydrocarbons activities.⁷⁹

5) ACCESS TO INFORMATION AND PUBLIC PARTICIPATION MECHANISMS

An essential role of public participation is to ensure that well-informed decisions are achieved, and that priorities and ultimately choices have been determined through democratic processes, involving all relevant actors. This requires public access to information, as well as adequate processes for participation and dialogue, in order to

⁷³ Supplementary Norms as approved by the Federal Mining Council, Annex III.

⁷⁴ See Mining Undersecretariat, *supra* note 59, at p. 21.

⁷⁵ Regulation of the EIA System N°30, Official Gazette, 3 April 1997, section f.7.

⁷⁶ See Single Revised Text, *supra* note 49.

⁷⁷ See Community Relations Guide, *supra* note 70.

⁷⁸ *Ibid.*, pp. 10 and 25/26.

ensure that the public's views are adequately taken into consideration in the decision-making process. Providing information, identifying issues that concern local communities, and influencing decisions are thus important components of public participation. As such, public participation mechanisms should be put in place as early as possible, and to the extent possible during the scoping stage of the project in order to help identify potential impacts of concern to local communities that should be addressed, eventually in the EIA.⁸⁰

Public participation mechanisms have emerged in most cases within the EIA system in the countries under study, and are mainly oriented to providing access to information, in a more or less limited way.

- In Argentina, environmental regulations applicable to mining at the national level require the enforcement authority to provide information to whoever requests it regarding the application of environmental provisions.⁸¹ In turn, the provinces -that have retained the powers to regulate general environmental matters within their own jurisdictions- can introduce public participation mechanisms as long as these do not contradict national law. In this context, a few provincial constitutions and environmental framework statutes have provided scope for public hearings in development projects.⁸² A major flaw of the public participation system in Argentina is that there is no obligation to pay due regard to the comments of interested parties.⁸³
- In Chile, law 19,300 establishes citizen participation, setting forth the responsibility of national and regional environmental agencies to establish mechanisms to ensure the informed participation of the community in the assessment process of the Environmental Impact Study ("EIS") submitted thereto.⁸⁴ Participation under Chilean law basically consists of access to information, the publication of an abstract of the EIS in the official government gazette and in newspapers with a general circulation within 10 business days following the submission of the study being mandatory. Non-Governmental Organisations and individuals who can be affected directly by the project are allowed to learn about the EIS contents and the terms of documents, and to submit their objections or comments within 60 days following the publication on the

⁷⁹ Decree 003-2000, Official Gazette 28 January 2000

⁸⁰ See Environmental Law Institute, *supra* note 55, p. 52.

⁸¹ See Argentinian Mining Code, *supra* note 43, section 268.

⁸² E.g., the provinces of Jujuy and Mendoza.

⁸³ It is worth noting that rather informal mechanisms have been used as a means of public involvement. As an example, after the closure of Mina Angela in Chubut Province, adjacent community inhabitants requested a provincial deputy to ask a report on the environmental impacts produced by the mine closure. See Draft Resolution 1748. Request of information to the Executive Power on the environmental impact produced by the closure of Mina Angela in Gastre District, Province of Chubut. B.A.E. 6) (T:P: 30) 2001), at <http://www1.hcdn.gov.ar/dependencias/cmineria/proyectos.htm>

See also http://www.diariojornada.com.ar/diario/noticias/2001_04_05_03_58_26.html (last visited 25 September 2001)

EIA. If objections or observations submitted are not duly considered or weighed in the qualifying resolution approving the EIS, action may be brought challenging the resolution.

Although it is positive that the law incorporates a mechanism to include the observations of those affected by the project, the approach has a few shortcomings, being rather late in the project timetable. It has been further argued that the means of publication can prevent isolated communities from getting timely access to this information.

- Until 2001, public participation in Peru consisted of a mechanism of information within the EIA by means of publications in the official gazette and local newspapers, and public hearings.⁸⁵ Some procedural aspects of public hearings have notably improved since the system was emplaced. While initially they were centralised in Lima, it is now compulsory that they be held in a location close to the project.⁸⁶ Executive summaries of the project are distributed among the participants, the project results are disclosed, and questions can be raised, although in written format. Comments have to be taken into account in the decision-making process. There are still shortcomings in the timing and notifications that must be overcome.⁸⁷ Importantly, the previously referred Community Relations Guide recognises the weaknesses of public hearings as a means of building up consensus or providing solutions to particular problems, as well as a starting point for communication with those affected by the project. The Guide stresses the need to initiate a process of consultation in earlier phases of the project.

As mentioned before, there have been recent developments in Peru towards the adoption of a national system of EIA. This recent law guarantees both formal opportunities for community participation during the EIA process, as well as non-formal ones. These should be promoted by the project proponent in order to incorporate the perceptions and opinions of those communities that could be affected by the project.

To sum up, mechanisms for meaningful participation in the countries under study are still at the formative stage. So far, opportunities for public participation are designed for project approval and within the EIA process, rather than as a consensus-building tool throughout the project. Although Peru has further enhanced public hearings procedures,

⁸⁴ See Regulation of the EIA system, Title V on the Participation of the Community in the EIA Process, *supra* note 75.

⁸⁵ Reference Mining Plan (Plan Referencial de Minería), www.mem.gob.pe/wmem/publica/dgm/plan-referen2000-2009/planreferencial.pdf&e=747, p. 53.

⁸⁶ Reglamento de Participación Ciudadana en el Procedimiento de Aprobación de los Estudios Ambientales Presentados al Ministerio de Energía y Minas (Resolución Ministerial N° 728-99-EM/VMM).

⁸⁷ See Barrera, *supra* note 34 a.

there are still procedural obstacles in getting access to information, and in the implementation of further action. Moreover, experience has shown that even in cases where public hearings have been implemented, effective participation is hampered if it is not accompanied by accessible information and capacity-building programmes. There are still important gaps regarding timing, what information, and to what extent participation will have an impact on the decision-making process.⁸⁸ Much still needs to be done in order to provide for meaningful and effective mechanisms for access to information and consensus-building with the affected community, as well as the enhancement of institutional capabilities to guarantee the effectiveness of such participation.

6) INTERFACES BETWEEN MINERAL LAW AND ENVIRONMENTAL REGULATION

An important question when integrating sustainability is whether environmental regulations will be incorporated within the process to obtain mineral rights, as adopted in Venezuela, or whether the environmental permitting process is completely independent from the mineral licensing process. The latter is the approach adopted by Argentina, Chile and Peru.⁸⁹ Thus the regime and procedure for acquiring, transferring, maintaining and cancelling mining rights, defining the rights and obligations of the right holder and powers of government officers, which are governed by mining laws,⁹⁰ are separated from the regulation or conditions for the use of such a resource, including environmental regulation. As in most Latin American countries, in Argentina, Chile and Peru mineral resources are vested in the State domain pursuant to their relevant Constitutions.⁹¹ Following Latin American tradition, these countries have all adopted a concession system whereby a mining claim is granted to the first applicant, provided certain requirements are met. As to the legal nature of mineral rights granted under the concession system, exploitation concessions have all the attributes of real property rights and as such, they are freely transferrable and mortgageable, and are protected by constitutional guarantees.⁹²

The separation of environmental regulation from mineral rights procedure is considered as a best practice in terms of a competitive regime for private investment, as mining rights can be pledged or mortgaged while raising funds for the mining project, without being subject to the uncertainties and delays derived from the approval of environmental

⁸⁸ See MMSD – Regional Partner in South America, *supra* note 12, at p.29.

⁸⁹ See Naito, Remy and Williams, *supra* note 9.

⁹⁰ Argentinian Mining Code, *supra* note 43 (“AMC”). Chilean Organic Constitutional Law of Mining Concessions N° 18,097 (1982); Chilean Mining Code, Law N° 18,248, Official Gazette, October 13, 1983 (“ChMC”). Single Revised Text of the General Mining Law of Peru, *supra* note 49 (“PML”).

⁹¹ In Argentina, being a federal country, minerals are vested in the Provinces’ eminent domain (“*dominio originario*”) (Argentinian Constitution, as reformed in 1994, section 124). Chilean Constitution, section 19 N° 24; Peruvian Constitution, section 66.

⁹² AMC, section 12; Organic Constitutional Law of Mining Concession of Chile, section 6; PML: section 10.

plans.⁹³ Compliance with environmental regulations is a prerequisite for the *operation* of mining rights, but not for the *acquisition* thereof. Likewise, failure to meet certain *operating* obligations is punished by administrative sanctions, rather than by constituting grounds for cancelling a mining right.⁹⁴

Even though the countries under analysis treat mining licensing and environmental permitting as separate regimes, there might be interfaces between the law stipulating the property regime of the resource, and the regulations providing conditions and restrictions for its sustainable use. A number of questions can be raised here.

A first, remarkable impact of environmental provisions on conventional regimes of mineral law involves increasing restrictions on the operation of property rights based on public interest reasons. As with any other property right, the use and enjoyment of private mining rights must be in accordance and within the limits of the laws that regulate their operation.⁹⁵ Thus, the law may harmonise and subordinate such use and enjoyment –on a reasonable basis- to the interest of society.⁹⁶ This is an expression of the doctrine of the “social function of the property” that is embedded in the San José de Costa Rica Covenant which has been signed and ratified by all the three countries under study.⁹⁷ As an example, Section 19 N° 24 2nd paragraph of the Chilean Constitution expressly authorises the setting of limitations and obligations derived from the social function of property, which comprises that required for the “conservation of the environmental heritage”. Those rules provide a reasonably clear framework for the environmental (and social) regulation of mining rights and the interpretation of restrictions on ways to use or manage mineral resources.

This view is also reflected in the previously referred Organic Law of Sustainable Use of Resources enacted in Peru, aimed at providing a normative framework that spells out the restrictions for the operation of resources rights as established by sectoral laws.⁹⁸ Pursuant to this law, natural resources shall be used in a sustainable manner, which in the case of non-renewable resources consists of their efficient exploitation under the

⁹³ *Ibid.*

⁹⁴ Williams, J., “Worldwide Observations on the Latin American Mining Law Model”, in *Proceedings of the Dundee Annual Mining Seminar*, June 2001. In Chile, where mining is subject to the general environmental regime, it is thought that exceptional benefits traditionally enshrined in mining legislation should disappear, ideally and in the long run, and be governed by the common regime in force in each country for other economic activities. See Ossa Bulnes, J.L., “Mining Legislations in Latin America: Reform and Modernisation”, in 1997 *RMMLF*, at p. 1-5.

⁹⁵ Argentinian Constitution, section 14; Peruvian Constitution, section 70; Chilean Organic Constitutional Law, section 7.

⁹⁶ AMC, section 282; ChMC, section 116; PML, section 48.

⁹⁷ American Convention on Human Rights, San Jose de Costa Rica Covenant.

⁹⁸ Such a view is reinforced whether the changing dynamic of the relationship between landowners and mine rights holders is taken into account (a matter that has been left outside the scope of this study). See Bastida, E., “Competitive Land-Uses in Some Selected Countries in Latin-America: Towards a Relative Precedence of Mining Land Use?”, *The Dundee Yearbook of Natural Resources Law* (Dundee: Centre for Energy, Petroleum & Mineral Law & Policy, First Edition, 1997). See more recent developments in Peru in Gonzales, C, *supra* note 15.

principle of substitution of net values or gains, either avoiding or mitigating the negative impact on other surrounding resources and the environment.⁹⁹

In more practical terms, there is a need to accommodate some uncoordinated provisions between mineral law and environmental regulation. Depending on each country, environmental obligations at the end of exploration rights, or the “abandonment” of mineral rights (as stipulated in the Argentinian Mining Code), need some sort of harmonisation in the light of a common sustainability goal. Also, as for starting with exploration work the relevant EIA must have been approved, such a procedure can take a substantial time from the limited exploration term set out under the Mining Code. A great deal of concern in Chile has been focused on the interfaces between environmental assessment and exploration permits, the duration of which is for two years, extendible for a further two years, and the chances of delaying the commencement of exploration within that tight schedule while awaiting the environmental assessment approval.

In some cases there is also room for synergies between legal tools used by the applicable mineral and environmental laws. A good example is provided by the informal side-use of the EIA in some provincial jurisdictions in Argentina as a tool to assess the compensations due to the landowner for the mining use of the surface land.¹⁰⁰

7) INTEGRATING SUSTAINABILITY: A FEW CHALLENGES AHEAD

There will be projects where mining land-use can be incompatible with other uses of land (protected areas, urban settlements, aboriginal lands). Sustainable development proposes an integrated approach to land use planning that recognises competing interests and attempts to negotiate the most appropriate course of action, taking into account the ecological and social limits of the area. It will be the job of the law to interpret the balances between conflicting values and principles in different areas of law on a case-by-case basis, as well as to develop new frameworks for decision making for integrated land use that comprises adequate negotiation and arbitration procedures, and compensation mechanisms to balance all the affected interests.¹⁰¹

This suggests a challenging potential role for mineral law, as well a significant shift in thinking in the principle of precedence of mining land-use embedded in traditional mineral law (on the assumption that mining is a more valuable use of land). This principle informs the Argentinian Mining Code, and has evolved both in Chile and Peru, which rely on market mechanisms for the allocation of land-use.¹⁰²

⁹⁹ See Organic Law of Sustainable Use of Natural Resources, *supra* note 37, section 28.

¹⁰⁰ Krom, B., *La Minería Sustentable del Milenio* (Buenos Aires: Editorial Estudio, 2000)

¹⁰¹ See MMSD, *supra* note 16, at p. 167.

¹⁰² See Bastida, *supra* note 98.

IV. Conclusions

It has been said that a “first generation” of legal reform in the mining sector in recent years has been aimed at setting the conditions for an enabling environment to meet investor’s needs. Now governments are faced with the challenges posed by a “second generation” of legal reform aimed at developing legal and institutional structures that balance the rights and duties of investors, governments, local communities and all those affected by mining, and ensures that investment turns into opportunities for sustainable development.¹⁰³ A proper framework for managing sustainable development, including the recognition of environmental and socio-economic impact assessments from the earliest stages of project development and beyond closure, that ensure access to information, participation and dialogue with the affected community and other directly interested parties on the environmental and social aspects of all phases of mining activities, in a context of mineral investment promotion, become an important element of such a second generation of legal reform.

This paper aims at providing an insight into existing practices and major challenges in incorporating those aspects of sustainable development (called “sustainability” for the purposes of this paper) into legal frameworks for mining in Argentina, Chile and Peru. Although far from comprehensively implemented, common efforts are being undertaken in Argentina, Chile and Peru, with the aims of accomodating sustainability concerns within highly competitive legal frameworks for mining. These efforts are characterised by placing emphasis upon the concept of legal certainty and the incorporation of environmental (and social) regulation, and public participation mechanisms on a gradual basis.

As for legal tools, the agenda has been mainly environment-driven, with the adoption of compulsory EIAs as a core environmental management tool. Implementation norms have evolved further, and the integration of the full mine life cycle into environmental management systems is gaining regulatory attention, exploration and closure plans having been incorporated in Peru in recent years. In addition, developments for the assessment of the social impacts of mining, as well as enhanced mechanisms for public participation are slowly being introduced, with Peru providing a leading role, and moving forward at a faster pace.

Notwithstanding the positive nature of these developments, the integration of sustainability into legal frameworks for mining is still in the formative stages. Much more needs to be done in order to shift the emphasis from restoration to pollution prevention, to

¹⁰³ See an agenda for a “second generation” of legal and institutional reform in the mining sector in MMSD, *supra* note 16, pp. 344 and ss.

integrate the full mine life cycle into environmental and social management systems, and to enhance the EIA administration and accommodate inconsistent mineral law provisions. There are important gaps to be filled in order to strengthen mechanisms for compliance by introducing financial sureties and closure guarantees, and adopting a mixture of regulatory and economic instruments, and negotiated voluntary agreements. Moreover, a major task lies ahead in ensuring the full recognition of the assessment of social impacts from the early stages of the project onwards, as well as meaningful access to information and community participation.

The integration of the concept and tools for environmental and social management of mineral development, including the provision of appropriate mechanisms for public involvement within legal frameworks for mining are certainly posing new challenges (conceptual, institutional and practical). They create an intricate task for law and policy making in the mining sector. Environmental and social regulation underlies the idea of placing limitations or conditions on the exploitation and management of mineral resources, and stresses the fulfillment of local needs; an approach that in many ways is at odds with the manner in which mining has traditionally been regulated. The question is even more challenging in the context of developing economies, which are in desperate need of alternatives to foster economic and social development. Often it is a sense of urgency for rapid earnings and economic development, a need for foreign exchange to service debt, the idea that tighter environmental regulation might discourage investment, plus a lack of financial resources, technical skills, and political will which undermines initiative and cohesion, and lead to poor implementation of sustainable development-related laws.

Answers to the question of integration of sustainability are context-based, and thus determined by the legal tradition, political, economic, social and cultural background, and political will of each country.¹⁰⁴ To balance the equation between short-term demands for competitiveness to attract investment, with the longer-term objectives of sustainability in developing economies is perhaps the most challenging task ahead on the road towards a more mature and integrated system for the development of mineral resources in a sustainable manner.

¹⁰⁴ Boer, B., "Implementation of international sustainability imperatives at a national level", in Ginther, K.; Denters, E. and de Waart, P. (eds.), *Sustainable Development and Good Governance* (Dordrecht: Martinus Nijhoff Publishers, 1995), at p. 112.