Framework for Responsible Mining: A Guide to Evolving Standards

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October 19, 2005

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FOREWORD

In 2003 Tiffany & Co., EARTHWORKS, and World Wildlife Fund (WWF) hosted a "responsible-source minerals dialogue" to convene NGOs, retailers, investors, insurers, and technical experts involved in the minerals sector. The purpose of the meeting was to discuss environmental, human rights, and social issues associated with mining and mined products, and to explore the potential for creating a basis for responsible sourcing and investing. Many of the participants, including representatives from each of the sectors, as well as others who have subsequently joined the dialogue, requested a research document identifying best practices in the sector. Such a document could both inform the development of sourcing and investing policies, and serve as a catalyst for further cross-sector dialogue on these issues. (See Appendix A.1 for the vision statement developed at this meeting.)

The need for such a document led the Center for Science in Public Participation (CSP²) and the World Resources Institute (WRI) to assemble a small, independent research team with expertise in environmental policy and practice, protected areas, community participation, indigenous peoples, and social issues. Marta Miranda (WRI and WWF) and Dave Chambers (CSP²) led the team. Marta Miranda has published research on mining and "no go" zones and was the author of Chapters 1 and 4. She also served as the overall substantive editor. Dave has been working in the nonprofit sector for 15 years on the environmental impacts of mining, and was the author of Chapter 2. Catherine Coumans joined the team as a consultant with expertise in social and anthropological issues related to the mining sector and wrote Chapter 3. During the course of the project, Marta Miranda moved from WRI to WWF and this project came along with her. Our respective organizations, CSP² and WWF, were pleased to work together to offer a home for this important project.

The team reviewed and assessed prior research on these issues, identified best practices in the industry where possible, and provided recommendations for retailers and other companies seeking to source or invest responsibly. Each member of the research team worked and consulted with other experts in their respective fields.

Fortunately, there was a rich vein of research, analysis, and findings from which to work. To the extent that the authors were aware of it, they sought to include the work accomplished in other initiatives in the framework. This included industry-sponsored sources such as the Mining, Minerals and Sustainable Development (MMSD) research project, current mining company policy, and materials from the International Council on Mining and Metals (ICMM); academic sources; and analysis and reports from NGOs. In many ways the project sponsors were seeking a document that drew on, and learned from, all of these, and other, sources.

We are pleased that a robust discussion of the issues covered in this document is under way in a number of key sectors. Our organizations and the authors intend for this framework to catalyze even more dialogue and subsequently a resolution across these sectors so that standards, such as those described in this document, are implemented, and a mechanism is created for independent, third-party verification of compliance with best practice in the mining sector.

The authors and our respective organizations will actively seek to promote and participate in a debate of the issues identified in the framework. We expect it to be challenged. In that sense, the framework as presented here remains a work in progress, subject to revisions based on further stakeholder input.

While the aim is not to replace other discussions and initiatives, inclusiveness should guide all dialogues aimed at ensuring environmentally and socially responsible mining. With that in mind, we encourage cross-sector dialogue that is legitimate and acceptable to all parties. A debate controlled by one sector is unlikely to produce meaningful results. Instead, solutions must be grounded in sound scientific analysis and findings and fully debated with a broad range of affected constituents. Rather than focusing the debate on issues where a technical or scientific solution has been identified, future discussions should invest time and resources on those areas in which additional research, analysis, and discussion are needed. Such guidelines might include determining the basis for free, prior, and informed consent of indigenous peoples and other affected communities; broadly accepted criteria and guidelines for conservation offsets; and avoiding negative environmental impacts from largely unregulated and unmonitored mineral exploration. It is our view that areas lacking clear, scientific consensus require the most robust debate.

In the spirit of encouraging further debate, the framework and its supporting documentation are accessible online at www.frameworkforresponsiblemining.org. We encourage those interested in participating in the dialogue to visit the Web site and submit comments. Comments will be posted on the site and taken into consideration during subsequent stakeholder engagement workshops.

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Marta Miranda is Senior Program Officer for extractive industries in the World Wildlife Fund's Macroeconomics for Sustainable Development Program Office (MPO). Prior to joining the MPO, Marta spent nine years at the World Resources Institute, where she conducted research on global extractive industries policies, with a national emphasis on Venezuela, the Philippines, and Papua New Guinea. While at WRI, she also helped establish the Venezuela chapter of Global Forest Watch, a project aimed at tracking development and change in the world's forests. Marta has edited and authored several peer-reviewed articles and books, including *Mining and Critical Ecosystems: Mapping the Risks*; *The State of Venezuela's Forests: A Case Study of the Guayana Region*; and *All That Glitters Is Not Gold: Balancing Conservation and Development in Venezuela's Frontier Forests*.

Originally from Portugal, Marta holds an M.A. in Geography from San Diego State University and a B.A. in Geography from the State University of New York, Geneseo. Ms. Miranda is fluent in Portuguese and Spanish.

Marta wrote Chapters 1 and 4, and also served as the overall substantive editor of the framework.

DAVID M. CHAMBERS, Ph.D.

Dr. Chambers is the president of the Center for Science in Public Participation (CSP²), a nonprofit corporation formed to provide technical assistance on mining and water quality to public interest groups and tribal governments.

David has 15 years of management and technical experience in the mineral exploration industry, and for the past 15 years has served as an advisor on the environmental effects of mining projects both nationally and internationally. He is a registered professional geophysicist (California # GP 972) with a Professional Engineering Degree in Physics from the Colorado School of Mines and a Masters Degree in Geophysics from the University of California at Berkeley. Dr. Chambers received his Ph.D. in Environmental Planning from Berkeley. His doctoral dissertation analyzed the U.S. Forest Service's efforts to plan for and manage minerals on the National Forests.

He has provided assistance to public interest groups on proposed, operating, and abandoned mines in Alaska, Arizona, California, Colorado, Idaho, Missouri, Montana, Nevada, Oregon, South Carolina, South Dakota, Utah, Washington, and Wisconsin, as well as British Columbia and Labrador in Canada, Kyrgyzstan, and Northern Ireland. This assistance has often been in the form of technical reviews to assist groups in submitting comments on the environmental deficiencies of proposed mines as a part of mine permitting or Environmental Impact Statement reviews, as well as suggesting mine-development alternatives that are more environmentally sound than the developer's proposals. Much of this assistance has focused on analyzing the potential adverse effects on surface- and groundwater quality of acid mine drainage from tailings pond discharges and runoff from waste rock piles.

Dave wrote Chapter 2.

CATHERINE COUMANS, Ph.D.

Dr. Coumans is Research Coordinator and responsible for the Asia-Pacific Program at MiningWatch Canada. MiningWatch Canada is a nonprofit organization supported by environmental, social justice, Aboriginal, and labor organizations from across Canada.

As Research Coordinator, Catherine has supervised Canadian and international research projects and authored peer-reviewed reports on topics such as full cost accounting for mining, revitalizing economies of mining-dependent communities, and participatory health research with women in mining communities and with women mine workers. Her publications in journals and books on mining include a chapter in *Moving Mountains: Communities Confront Mining and Globalization*; "The Case against Submarine Tailings Disposal," in *Mining Environmental Management*; "Research on Contested Ground: Women, Mining and Health," in *Pimatisiwin*; and "Canadian Companies in the Philippines: Placer Dome," in *Undermining the Forests*.

Catherine works with regional nongovernmental organizations and, in most cases, directly with mining-affected communities in India, Burma, Thailand, Indonesia, the Philippines, Papua New Guinea, and Kanaky-New Caledonia. Her work has particularly focused on indigenous peoples affected by Canadian mining companies in this region. She has provided expert testimony on mining in two congressional inquiries in the Philippines, as well as before the Constitutional Court in Indonesia.

Catherine's academic engagement with mining's impact on communities dates back to her Ph.D. research on the island of Marinduque in the Philippines in 1988–90. She holds an M.Sc. (London School of Economics) and a Ph.D. (McMaster University) in Cultural Anthropology and carried out postdoctoral research at Cornell University. She has taught at Cornell and McMaster.

Catherine wrote Chapter 3 and its associated appendixes.

ACKNOWLEDGMENTS

This document seeks to build on many prior efforts to identify environmentally and socially responsible mining practices undertaken by others in the NGO, industry, and academic communities. The authors gratefully acknowledge the work of others, including as a result of the Mining, Minerals, and Sustainable Development (MMSD); Extractive Industries Review (EIR); Global Reporting Initiative (GRI); the World Conservation Union (IUCN)–International Council on Mining and Metals (ICMM) dialogue, and the GRI mining sector supplement. The authors are also grateful for the support and insights provided by Stephen D'Esposito, Payal Sampat, and Alan Septoff at Earthworks throughout the development of this project.

Comments were sought on earlier drafts of this framework from representatives of mining companies, local communities affected by mining, social and environmental NGOs, academics, labor organizations, and governments. The authors would like to thank Anna Cederstav, Richard Cellarius, Peter Colley, Luke Danielson, Cristina Echavarria, Keith Ferguson, Antonio La Viña, Stu Levit, Ingrid Macdonald, Fergus MacKay, Paul Mitchell, Glenn Mpufane, David Putt, Michael Rae, Mohammad Rafiq, Keith Slack, Viviane Weitzner, Ian Wood, and Carlos Zorrilla for their insightful comments. Reviewers provided comments reflecting their professional expertise. Their participation should not be interpreted as an institutional endorsement from any organizations with which they are or have been affiliated. While recognizing the contributions of those mentioned above, the authors take full responsibility for the opinions expressed in this draft framework.

The authors would also like to thank those whose current and past support made this report possible: Brainerd Foundation, Bullitt Foundation, Ford Foundation, Goldman Fund, Scherman Foundation, Tiffany & Co. Foundation, True North Foundation, and Wilburforce Foundation.

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
ACT	Australian Capital Territory
AFED	Australian Federal Environment Department
AMEEF	Australian Minerals and Energy Environment Foundation
ARD	Acid Mine (Rock) Drainage
ASM	Artisanal and Small-Scale Mining
BCARD	British Columbia Acid Rock Drainage (truncated publication title)
CARC	Canadian Arctic Resource Committee
CASM	Communities and Small-Scale Mining
CBD	Convention on Biological Diversity
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CERD	Convention on the Elimination of All Forms of Racial Discrimination
CI	Conservation International
COFACE	French Export Credit Agency
CSP²	Center for Science in Public Participation
DESA	Department of Economic and Social Affairs
EBI	Energy and Biodiversity Initiative
ECGD	British Export Credit Agency
EIA	Environmental Impact Analysis
EIR	Extractive Industries Review (World Bank)
EITI	Extractive Industries Transparency Initiative
EOE	Equal opportunity employment
ESAC	Environmental Studies Association of Canada
FPIC	Free, prior, and informed consent
GIA	Gender Impact Assessment
GRI	Global Reporting Initiative
HRC	Human Rights Committee
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICMI	International Cyanide Management Institute
ICMM	International Council on Mining and Metals
ICOLD	International Commission on Large Dams
IDRC	International Development Research Centre
IFC	International Finance Corporation
IISD	International Institute for Sustainable Development
ILO	International Labour Organization
INAP	International Network for Acid Prevention
IPRA	Indigenous Peoples' Rights Act
ISO	International Standards Organisation
ISS	Indigenous Support Services
IUCN	World Conservation Union
JBIC	Japan Bank for International Cooperation

MEND	Mine Environment Neutral Drainage
MIDR	Mining-induced displacement and resettlement
MIGA	Multilateral Investment Guarantee Agency
MMSD	Mining, Minerals, and Sustainable Development
NGO	Nongovernmental organization
OAS	Organization of American States
OECD	Organisation for Economic Development and Co-operation
OPIC	Overseas Private Investment Corporation
PCIA	Peace and conflict impact assessment
PDAC	Prospectors and Developers Association of Canada
SACM	South African Chamber of Mines
STD	Submarine tailings disposal
TNC	The Nature Conservancy
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USDA	U.S. Department of Agriculture
USDOI	U.S. Department of Interior
WBOED	World Bank Operations Evaluation Department
WBCSD	World Business Council on Sustainable Development
WCD	World Commission on Dams
WCED	World Commission on Environment and Development
WCMC	World Conservation Monitoring Centre
WRI	World Resources Institute
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

The Framework for Responsible Mining is the result of a call by NGOs, retailers, investors, insurers, and technical experts working in the minerals sector to create a basis for developing responsible sourcing and investing policies. The framework outlines environmental, human rights, and social issues associated with mining and mined products, and explores state-of-the-art social and environmental improvements, providing recommendations for retailers and others seeking to source or invest responsibly, as well as regulate and encourage responsible mining practices. The framework document is a first draft, open to debate and discussion; the authors encourage feedback and hope that the framework can be improved with stakeholder input.

This executive summary introduces the issues involved; the principles guiding the framework; and the methodology, target audience, approach, and organization of the framework; and provides quick links to the sections of the framework which discuss recommendations (labeled "Leading Edge," or improved practice, in contrast to the "Norm," or existing practice). Summaries of the Leading Edge issues are included here so that the reader has quick access to a master list of all recommendations.

The Impacts of Mining

Mining effects environmental and social change no matter where it occurs. Mining-related disruptions can impact the physical environment (through, for instance, loss of habitat and contamination of surface and ground waters) or local communities (through, for instance, cultural adjustments to the presence of miners). Although some degree of disturbance is inevitable even in the best-managed mines, *nearly all negative social and environmental impacts are avoidable* if companies would operate according to the best possible standards. Unfortunately, existing frameworks have not consistently ensured responsible behavior in mining operations, and negative environmental and social impacts occur more frequently than they should.

Over the last 10 years civil society groups have successfully campaigned for more responsible corporate behavior, focusing on promoting sustainable forestry, ending the trade in conflict diamonds, and protecting labor rights in the apparel industry, among others. Retailers and other businesses understand the risks from association in the consumer mind with irresponsibly sourced products. Indeed, consumers in some industrialized countries try to make environmentally and socially responsible choices when they buy products or services, and investors and insurers have begun to respond to that; they understand that lowered environmental and social risks can translate into lowered costs of doing business.

Recognizing these trends, some corporations have moved to distinguish themselves from competitors by subjecting their operations to independent scrutiny and establishing a verifiable chain of custody for products. Many have come to realize that compliance with the laws of the countries in which they operate may not be sufficient to protect the environment or vulnerable communities. Some corporations acknowledge the need for compliance with international codes,

protocols, covenants, declarations, instruments, and customs that protect basic human rights, self-determination, cultural integrity, labor and social rights, and the natural environment.

In an effort to assess the environmental and social impacts of mining, in 2002 the International Institute for Environment and Development published a comprehensive review of major issues facing the mining sector, a result of a two-year research project known as "Mining, Minerals and Sustainable Development" (MMSD). The report was commissioned by the World Business Council on Sustainable Development (WBCSD) and was sponsored and funded in large part by major mining companies. A number of these companies also formed a new industry trade association, the International Council on Mining and Metals (ICMM), with a mandate to promote sustainable development in the sector.

This industry-led research effort was subsequently followed by detailed and sector-specific initiatives aimed at addressing the environmental and social impacts of mining in a variety of contexts, including:

- An independent review of the impacts of the World Bank's lending in the extractive industries sectors, resulting in a final report containing recommendations for future lending activities in these sectors;
- A voluntary code of conduct known as the Equator Principles to provide guidelines for all project finance in excess of $50 million. Some of the largest private banks have since followed up with more detailed sector guidelines, including for mining;
- A dialogue between the World Conservation Union (IUCN) and the International Council on Mining and Metals (ICMM) to address biodiversity conservation and mining issues;
- Government-sponsored initiatives in the extractive industries sectors to promote greater transparency and protection of human rights;
- Private sector initiatives, such as mining industry codes of conduct, which seek to set conditions for more responsible behavior in the mining sector;
- A variety of declarations, demands, and policy position papers prepared by civil society groups that aim to improve the practices of mining companies around the world; and
- Publication of a mining sector supplement to the Global Reporting Initiative (GRI) aimed at standardizing the way mining companies report their environmental and social impacts.

These initiatives and many others form the basis of the Framework for Responsible Mining. However, while collectively covering a broad range of issues related to mining, these initiatives by themselves do not provide a comprehensive basis for the development of environmentally and socially responsible mining standards. The objective of the framework is to provide the research background and to recommend principles for consideration by a broader range of stakeholders interested in promoting responsible mining.

The Principles Behind the Framework for Responsible Mining

The recommendations highlighted in this framework are based on seven common principles stemming from international agreements, such as Agenda 21 and the Rio Declaration, which have been incorporated into many domestic jurisdictions around the world. The principles are sustainable development, equity, participatory decision making, accountability and transparency, precaution, efficiency, and polluter responsibility (the "polluter pays" principle).

The Leading Edge issue recommendations of the framework are aligned with UN conventions and other agreements governing human rights, basic labor rights, right to development, right to a healthy environment, indigenous people's rights, and women's rights. In many cases, the Leading Edge issue recommendations are also consistent with the demands by many NGOs that governments and the private sector respect and promote these basic human rights.

Although many international instruments have recognized that all human beings, regardless of gender, ethnicity, age, race, religion, political views, or sexual orientation are entitled to universal claims that cannot be taken away or exchanged, it has been necessary to single out the rights of indigenous peoples and women because these groups are often marginalized and/or disproportionately impacted by mining activities.

Specific rights recognized by international instruments for indigenous peoples include their rights to existence as peoples, self-determination, control over their territories, cultural integrity, a healthy and productive environment, political organization and expression, and fair compensation for damage to their lands. These international agreements form the basis for the rights of indigenous peoples to free, prior, and informed consent to any development activities that affect their territories and livelihoods.

Recognition of the disparity between men and women in their access to and enjoyment of human rights has led to several declarations and international instruments that seek to promote the empowerment of women. Specific objectives set forth in these instruments include increasing their participation in decision making, eliminating violence and abuse, and providing equal access to health care and education.

Framework Scope, Methodology, and Limitations

The framework addresses issues related primarily to hard-rock mining (base and precious metals and gemstones). Although coal mining presents some of the same environmental and social challenges as hard-rock mining, it is also associated with additional problems (e.g., climate change) which fell beyond the scope of this research effort. Therefore the authors chose not to include the fossil fuel industries in their analysis. However, some issues outlined in the discussions on no-go zones, social issues, and governance are broadly relevant to all extractive industries and even to many major development projects (e.g., dam construction).

In preparing the framework, the authors summarized positions on varying topics and organized these according to constituent support. An earlier draft of the framework was reviewed by more than 20 experts from NGOs, industry, government, labor, and the research community. As noted

above, the issues covered in the framework are divided into widely accepted practices ("the Norm") and desired future standards ("the Leading Edge"). These are defined as follows:

The Norm refers to environmental and social practices that companies commonly adopt to comply with regulations or to ensure more cost-effective site management in industrialized nations. For example, liners are universally used for ore processing at heap leach mines. Other accepted norms in industrialized nations include the development of a mine reclamation plan, with financial provisions; emergency plans for the safe transport and storage of cyanide; and plans to prevent surface and groundwater contamination. There may, however, be disagreement as to the degree and means by which these norms should be implemented.

Leading Edge practices are those that, in the opinion of the authors, could generate significant environmental and social improvements if implemented. They are also typically supported by the literature and may be promoted by several of the four audiences identified below. The authors consider that Leading Edge issues need to be addressed in the context of identifying conditions for "responsible" mining, but further dialogue among stakeholders is necessary to develop a common and accepted approach to environmentally and socially responsible mining. *This draft document does not substitute for such a process*.

Although the framework drew from a wide array of documents, position statements, codes of conduct, and expressions of "best practice" in the mining sector, it does not include a comprehensive review of existing government regulations in the sector. Where possible, the authors referenced existing government regulations, but a comprehensive review of all legislation related to mining was not undertaken for this project.

Because governments have not developed a common approach to addressing the social and environmental impacts of mining, capturing the position of governments would require an exhaustive comparative analysis of legal and regulatory frameworks. This was not possible given the timeframe and resources of this project, and therefore government practices and positions are reflected only with respect to specific cases the authors encountered during their research. In addition, the authors were limited by the public availability of information as to the positions of the institutions involved.

Notwithstanding the authors' inability to fully represent government legislation and practice, many of the issues outlined in this framework will require government involvement and buy-in. The establishment of voluntary standards is not sufficient to ensure that mining maximizes benefits and minimizes costs to the environment and local communities. Many of the Leading Edge issues outlined in this framework require a functioning government context, including strong regulations and the will and capacity to enforce laws. The authors envision the issues outlined here as a contribution to the development of such legal and policy frameworks, and consider that governments will also need to be at the table during future stakeholder engagement processes. It is especially critical to engage developing-country government representatives during the initial stages of this process. New mining legislation is being drafted in many such countries, presenting a key opportunity to establish the appropriate legislative and governance frameworks early on.

Target Audience and Organization of the Framework

The framework targets four audiences: (1) governments and government agencies; (2) civil society groups, including NGOs; (3) the mining industry; and (4) financial institutions, including public and private banks as well as insurers.

Following this executive summary, the framework offers a more comprehensive evaluation of current practices and exploration of Leading Edge recommendations. The document identifies areas where opinions converge, recommending specific principles, standards, or criteria where appropriate. It also highlights issues where considerable debate remains. Although the authors expect that most readers will focus their attention on the executive summary and recommended options, these should be considered in light of the supporting research.

The framework's exploration of Norms and Leading Edge practices is presented in four parts of the main portion of the document, grouped by the following main themes:

Deciding whether a mine is an appropriate use of land. Chapter 1 addresses the need to preserve ecologically and culturally significant areas and to weigh land and resource use options. While many other technical and social issues may lead stakeholders to decide that mining should not proceed, these issues are considered in subsequent parts of the framework.

Ensuring environmentally responsible mine development. Once a decision to mine has been made, certain environmental provisions should be in place to capitalize on benefits while avoiding negative outcomes. Chapter 2 details the environmental issues that need to be addressed at each stage of mine development.

Ensuring that mine development results in benefits to workers and affected communities. Chapter 3 covers issues related to social acceptability and free, prior, and informed consent for mining by community men and women and indigenous peoples, respectively; health and safety provisions; broader capture of benefits; artisanal miners; and relocation and security concerns at mines.

Ensuring that appropriate corporate governance structures are in place. Chapter 4 explores broader corporate or national governance provisions to ensure transparency in revenue payments between governments and companies, and reporting company progress made toward implementing responsible practices.

Leading Edge Issues

This section of the executive summary presents a compact list of Leading Edge issues covered in the main portion of the framework. The grouping mirrors that of Chapters 1–4, and each of the four headings includes an introduction to the corresponding part of the framework.

The list is hyperlinked; the reader may click on the description of each issue to go to the relevant discussion in the framework, where details regarding support and implementation of these issues may be found.

Chapter 1. Deciding Whether Mining Is Appropriate Land Use

Mining modifies landscapes and has possible long-term impacts on communities and natural resources. Some places with mineral potential may be so environmentally or socially sensitive that the risks posed by development in these areas are too high. These areas are generally referred to as "no go" zones. Chapter 1 proposes guidelines for determining which areas should be classified as such.

Leading Edge Issues Discussed in Chapter 1

Identifying Potential "No Go" Zones

(1) Mining should not occur in IUCN I–IV protected areas or in any marine protected areas (categories I–VI).

(2) Mining should not occur in Ramsar sites that are categorized as IUCN I–IV protected areas.

(3) A multistakeholder process should be used to identify additional areas of high conservation value that qualify as "no go" zones.

(4) Companies should ensure that their projects provide net conservation benefits that are consistent with maintaining the biological resources and ecosystem services on which local communities depend.

Chapter 2. Ensuring Environmentally Responsible Mining

The development of widely accepted criteria by which governments, NGOs, and industry can measure the environmental performance—and ultimately the environmental acceptability—of mining projects is the focus of this part of the framework. Using such criteria, governments could develop unambiguous standards to condition permits required for mine development and operation; NGOs could define benchmarks for measuring the acceptability of mine development proposals, as well as the environmental performance of operating mines; and mining companies could develop and apply clear guidelines to measure the environmental component of their social license to operate.

Chapter 2 focuses on the critical elements of each site-specific environmental issue and explains why adoption of the recommended Leading Edge criteria will lead to improved environmental performance.

Leading Edge Issues Discussed in Chapter 2

Exploration

(1) Details of the exploration project and potential impacts should be made available to affected communities and area residents in an appropriate language and format, and should be made accessible to the public.

(2) To cover the lasting environmental impacts of the exploration phase, companies should provide adequate financial guarantees to pay for prompt cleanup, reclamation, and long-term monitoring and maintenance.

Environmental Impact Analysis

(1) Stakeholders should be given adequate notification, time, financial support to pay for technical resources, and access to supporting information, so that participation in the EIA process is effective.

(2) Companies should collect adequate baseline data during the EIA process.

(3) Environmental costs, including those associated with regulatory oversight, reclamation, closure, and post-closure monitoring and maintenance should be included in the environmental impact assessment.

(4) Environmental assessment should include worst-case scenarios and analyses of off-site impacts. Companies should work with potentially affected communities to identify potential worst-case emergency scenarios and to develop appropriate response strategies.

Water Contamination and Use

(1) Companies should make discharge reports of contaminants to surface and ground waters publicly available.

(2) A qualified professional should certify that water treatment, or groundwater pumping, will not be required in perpetuity to meet surface or groundwater quality standards beyond the boundary of the mine.

(3) Minimizing water usage should be a stated mine management goal.

(4) Mine dewatering should be minimized to prevent all undesirable impacts on ground and surface waters, including seeps and springs.

Acid Mine (Rock) Drainage

(1) Companies should conduct adequate pre-mining and operational mine sampling and analysis for acid-producing minerals, based on accepted practices and appropriately documented, site-specific professional judgment. Sampling and analysis should be conducted in accordance with the best available practices and techniques.

Air

(1) Companies should monitor and publicly report airborne hazardous emissions (particularly mercury, lead, and greenhouse gases).

Energy Consumption

(1) Reducing energy use and greenhouse gas emissions should be a stated mine management goal.

Noise

(1) Maximum noise level requirements should be implemented at the project boundary.

Waste Management

(1) Tailings impoundments and waste rock dumps should be constructed to minimize threats to public and worker safety, and to decrease the costs of long-term maintenance.

(2) Tailings impoundments and waste rock dumps should be constructed in a manner that minimizes the release of contaminants by installing liners if seepage would result in groundwater contamination. In addition, waste facilities should have adequate monitoring and seepage collection systems to detect and collect any contaminants released in the immediate vicinity.

(3) Net acid-generating material should be segregated and/or isolated in waste facilities.

(4) Hazardous material minimization, disposal, and emergency response plans should be made publicly available.

(5) Rivers should not be used for the disposal of mine waste.

(6) Companies should not engage in shallow-water submarine waste disposal. Deep-water submarine waste disposal should not be used unless an independent assessment can demonstrate minimal environmental and social risks.

Cyanide

(1) Mine operators should adopt the Cyanide Management Code, and third-party certification should be utilized to ensure that companies implement safe cyanide management.

Reclamation and Rehabilitation

(1) Companies should develop a reclamation plan before operations begin that includes detailed cost estimates. The plan should be periodically revised to update reclamation practices and costs.

(2) Companies should restore all disturbed areas so that they are consistent with future uses.

(3) Companies should re-contour and stabilize disturbed areas. This should include the salvage, storage, and replacement of topsoil or other acceptable growth medium. Quantitative standards should be established for re-vegetation in the reclamation plan—and clear mitigation measures should be defined, to be implemented if these standards are not met.

(4) Where acid-generating materials are exposed in the rock wall of the mine, companies should backfill the mine pit if this would minimize the likelihood and environmental impact of acid generation. Backfilling options must include reclamation practices and design to ensure that contaminated or acid-generating materials are not disposed of in a manner that will degrade surface or groundwater.

(5) Where subsidence is considered likely, companies should backfill underground mine workings to prevent negative environmental impacts.

(6) Underground workings and pits should be backfilled to minimize the size of waste and tailings disposal facilities.

Financial Guarantees

(1) Financial sureties should be reviewed and upgraded on a regular basis by the permitting agency, and the results of the review should be publicly disclosed.

(2) The public should have the right to comment on the adequacy of the reclamation and closure plan, the adequacy of the financial surety, and completion of reclamation activities prior to release of the financial surety.

(3) Financial surety instruments should be independently guaranteed, reliable, and readily liquid. Sureties should be regularly evaluated by independent analysts using accepted accounting methods. Self-bonding or corporate guarantees should not be permitted.

(4) Financial sureties should not be released until reclamation and closure are complete, all impacts have been mitigated, and cleanup has been shown to be effective for a sufficient period of time after mine closure.

Post-Closure

(1) Reclamation plans should include plans for post-closure monitoring and maintenance of all mine facilities, including surface and underground mine workings, tailings, and waste disposal facilities. The plan should include a funding mechanism for these elements.

Monitoring and Oversight

(1) If permit violations occur, companies should commit to rapidly implementing corrections in order to maintain clean surface and groundwater.

(2) The environmental performance of mines and the effectiveness of the regulatory agencies responsible for regulating mines should be addressed in an independent environmental audit. These audits should be conducted on a regular basis and the results should be made publicly available.

(3) Communities should have the right to independent monitoring and oversight of the environmental performance of a mine.

Chapter 3. Ensuring That Mine Development Results in Benefits to Workers and Affected Communities

The impact of mining is not limited to the immediate area of the mine site. In addition to direct impacts on inhabitants located on, or adjacent to, the ore body, there are impacts on communities in the environmental, social, and economic zone surrounding the mine. Certain populations or "communities of interest" require special consideration by mining companies, governments, and investors. These include indigenous peoples, artisanal miners, mine workers, and people within communities who are marginalized on the basis of ethnicity, race, caste, class, or religion. Mining has a disproportionate impact on indigenous communities as activities expand into developing countries and ever more remote regions of the world, and on women.

This part of the framework focuses on the social costs and benefits of mining. Even though benefits should outweigh costs, mining has not always generated such an outcome. Sustainable

and long-term benefits to indigenous peoples and community women and men must be deliberately considered and pursued by mining companies in consultation with members of local communities. Chapter 3 provides further information on the ways in which mining companies can provide direct benefits to local community members.

Leading Edge Issues Discussed in Chapter 3

Indigenous Peoples and Free, Prior, and Informed Consent

(1) Companies should obtain the free, prior, and informed consent of indigenous peoples before exploration begins and prior to each subsequent phase of mining and post-mining operations.

Participation in Decision Making/Consultation

(1) Companies should negotiate with affected indigenous peoples and community men and women before exploration. Such negotiations should continue throughout the life of the mine, with the understanding that indigenous peoples or local communities may withhold consent at each stage of mine development.

(2) Companies should conduct consultations that are culturally appropriate, using mechanisms and institutions that are recognized by the affected indigenous peoples and community women and men in the area in which they wish to operate.

(3) Indigenous peoples and community women and men should be provided with sufficient resources to evaluate a project in order to decide whether, and how, they would like it to proceed.

(4) Companies should not try to extract a community decision in support of mining (or encourage governments to do so for them) as this may divide communities and create dissent.

Access to Information/Disclosure

(1) The company should provide full disclosure of pertinent information regarding a mining project to both women and men, as well as to marginal groups within potentially affected communities, in culturally appropriate forms and in locally accepted languages, as well as in English.

(2) The company should provide accurate information regarding employment opportunities for local people at the mine project, especially for women, indigenous peoples, and marginal groups in the community, as well as information regarding positive and negative economic impacts on non-employed members of the community, and “just transition” arrangements for employees and the community post-closure.

(3) If requested by the community, companies should facilitate site visits to other mines they operate. Communities should be allowed to choose the sites they wish to visit, and such visits should be designed to allow communities to fully explore the company’s operations, including the opportunity to speak freely with other community members, as well as with critics, if any, of the mining company.

Consent-Benefit and Compensation Agreements

(1) Companies should enter into binding contracts with communities that specify the terms under which a particular phase of a mining project may proceed. Such agreements should be mutually agreed upon and enforceable through the national court system in the country of operation or through mutually acceptable arbitration procedures.

(2) Indigenous peoples and community women and men have the right to deny consent to a project if the project changes substantially or if the company does not honor its binding agreement with the community.

(3) If a community has withheld consent for a mining project, no further requests for consultation by that company or any other should be made within a five-year period unless the community indicates otherwise.

Recognizing Women's Rights and Addressing Gender-Related Risks

(1) Companies should conduct Gender Impact Assessments (GIAs) in conjunction with Environmental and Social Impact Assessments before mining starts.

(2) If the mine proceeds, regular gender audits should be conducted to evaluate impacts and compliance with agreed-upon measures over time.

(3) Companies should compensate households headed by women just as they would those headed by men.

(4) In conjunction with women, companies should develop, implement, and enforce a code of conduct for their employees that covers responsible use of alcohol, relations with local women, increased risk for sexually transmitted diseases and HIV/AIDS, and gender sensitivity training in the workplace and in the community. Employees should be made aware of the Code of Conduct.

(5) Companies should comply with international labor standards that safeguard women with equal pay for work of equal value; safe and healthy working environments; and freedom from discrimination, violence, and sexual harassment.

(6) Women mine workers should have access to paid maternity leave and childcare leave. Breast feeding and crèche facilities should be provided on site unless an alternative location is preferred by women mine workers. Women mine workers who become pregnant while working at the mine should be provided with the option of appropriate alternate employment during pregnancy and early motherhood that does not expose them to hazardous substances and dangerous work.

(7) Women mine workers should be allowed the option to participate in the development and implementation of mining company policies, and internal monitoring, evaluation, and verification systems to ensure that mine managers and other mine employees protect and promote women's rights and equality. The company should put in place accountability, verification and incentive mechanisms to encourage and enforce these policies and systems.

(8) Mining companies should encourage and provide employment training opportunities for women in the formal mining sector in all areas of work, including underground mining and blasting, not just in traditional clerical positions. Companies should also provide training and jobs for women in social and environmental impact monitoring.

(9) At the national level companies should encourage governments to develop the appropriate capacity, allocate sufficient resources, and foster the political will necessary to develop,

implement, and enforce successful policies and legislation that reflect human rights and labor standards and address all aspects of relations between mining companies and local community women and women mine workers.

Recognizing Labor Rights and Addressing Worker-Related Risks

(1) Companies should respect the right of their employees to join a union and the right of their employees to bargain collectively.

(2) Together with representatives from employee organizations, companies should implement training sessions to educate employees on their basic labor rights and establish independent verification and monitoring procedures to ensure that basic labor rights are protected.

(3) Together with representatives from employee organizations, companies should establish formal and confidential complaint mechanisms for employees.

(4) Mining companies should provide job training to local community members so that they can employ a maximum percentage of their labor force locally.

(5) Mining companies should maximize training and employment opportunities for women and take active measures to counter discrimination against hiring of women, harassment of women in the workplace, and unsafe working conditions for women.

(6) In addition to gender equity, companies should ensure equal pay for equal work, as well as equal employment opportunities and protections for workers of any race, ethnicity, religion, caste, sexual orientation or political opinion.

(7) Mining companies should provide HIV/AIDS awareness training for all staff and their families and develop policies to protect, support, and provide for staff and their families living with HIV/AIDS. As women mine workers are particularly vulnerable to HIV/AIDS, prevention and protection programs should be particularly directed at women.

(8) Mining companies should prioritize workplace health and safety and adopt a broad view of health.

(9) Companies should not develop mines if they are prohibited from hiring unionized labor, or if their employees are subjected to forced labor.

Recognizing the Rights of Small-Scale and Artisanal Miners and Addressing Risks to their Livelihoods

(1) Mining companies should engage small-scale miners and their communities, help them obtain legal status, integrate them into the formal sector, help them gain access to markets, and provide technical and educational resources that will allow them to work in a more environmentally and socially sustainable fashion.

(2) Mining companies should adhere to guidelines on relocation and compensation if small-scale miners have to be removed from their homes and places of work.

Resettlement/Relocation and Compensation

(1) Resettlement should be avoided if at all possible and should not occur without the free, prior, and informed consent of affected individuals set out in a binding Consent Agreement.

(2) Voluntary resettlement must be preceded by a detailed displacement impact assessment that assesses all possible costs to communities and individuals who will be affected by the displacement, either directly or indirectly.

(3) Companies should allow enough time for assessment, consultation, participation of affected people, alternative land acquisition, and resettlement.

(4) Absence of legal title should not constitute a barrier to compensation through the resettlement process.

(5) Resettled individuals should be better off in their new situation than they were before resettlement.

(6) No displacement should take place until all likely risks and outcomes have been independently assessed for men and for women, a binding agreement is in place, compensation has been provided, alternate land has been allocated, people have had a chance to start rebuilding in the new location and policies and facilities are in place that allow resettled people to preserve or increase their standard of living. In addition, resettled individuals should be able to access an independent complaint and dispute resolution mechanism.

(7) Companies should encourage the establishment of dispute resolution mechanisms so that affected women and men can freely participate in the successful implementation of the resettlement program. Any complaints should be acknowledged, recorded, and addressed expeditiously in an agreed-upon fashion.

(8) Performance bonds or resettlement insurance should be provided in case these efforts do not provide better livelihoods in the timeframe originally agreed upon.

(9) All payments and expenses related to resettlement and compensation should be publicly disclosed to ensure accountability and transparency and to counter charges of corruption or misuse of funds.

Security Issues and Human Rights

(1) Companies should conduct an independent peace and conflict impact assessment to assess the risk of provoking or exacerbating violent conflict through their operations. Companies should avoid investing in areas where the risk of violent conflict is high (e.g., in areas of civil war or armed conflict).

(2) Companies operating in conflict zones or using armed security guards should abide by all major international human rights agreements, international humanitarian law, and refugee law. Security forces should never be used to address conflicts between the company and community women and men or the company's workers.

(3) Companies should not operate in areas that require them to use military forces or excessive security in order to maintain their operations, as such conditions are likely to result in human rights abuses. Companies should also not pay for or provide logistical or other support for police or armed forces of the host country in return for security services at the mine.

(4) Companies should not adopt policies that create or intensify divisions in communities, including hiring traditional enemies of the local community or one faction of an internal division in the community as security guards.

(5) Companies should cooperate with conflict prevention and conflict resolution NGOs to alleviate existing conflicts.

(6) Companies should state in their contracts with security personnel the conditions under which force may be used and make these contracts public.

(7) Companies should make sure that mining infrastructure and properties, such as vehicles or explosives, are not used to further conflict and that economic rents from mining are not used to provoke or prolong civil conflict or to support regimes that abuse human rights.

Chapter 4. Ensuring Good Governance

Chapter 4 examines governance issues at a national or corporate scale, such as the transparency with which companies and governments acknowledge revenue payments, and the degree to which companies report on and can be held accountable for progress made against stated commitments.

Leading Edge Issues Discussed in Chapter 4

Reporting

(1) Companies should report their progress toward achieving concrete environmental and social goals through specific and measurable indicators that can be independently verified. Such information should be disaggregated at a project or site-specific level.

(2) Financial institutions should report the environmental and social risks associated with their lending in the mining sector.

(3) Companies should report money paid to political parties.

Accountability

(1) An independent dispute resolution mechanism should be established so that communities can count on fair resolution of concerns they may have with mining companies.

Transparency

(1) Companies should report payments made to central governments, state or regional governments, and local government and authorities, and these payments should be compared to revenues governments receive, as well as to government budgets.

Corporate Governance

(1) Corporate governance policies should be made public, implemented, and independently evaluated.

(2) Companies should encourage adoption of sustainability concepts by employees in the workplace.

(3) Companies should review contractor practices to ensure compliance with sustainability principles.

INTRODUCTION

Mining implies environmental and social change no matter where it occurs. Disruptions can impact the physical environment (e.g., loss of habitat and soil quality) or local communities (e.g., cultural adjustments to the presence of miners). Although some degree of disturbance is inevitable even in the best-managed mines, nearly all negative social and environmental impacts are avoidable if companies are pressured to operate according to the best possible standards. Unfortunately, existing frameworks have not consistently ensured responsible behavior in mining operations, and negative environmental and social impacts occur more frequently than they should.

Over the last 10 years civil society groups have successfully campaigned for more responsible corporate behavior (e.g., promoting sustainable forestry, ending the trade in conflict diamonds, and protecting labor rights in the apparel industry). Retailers and other businesses understand the risks to reputation and brand value from association with irresponsibly sourced products. Consumers in some industrialized countries also prefer environmentally and socially responsible choices, and investors and insurers have begun to understand and respond to the financial benefits that can accrue from lowered environmental and social risks.

Recognizing these trends, some corporations have moved to distinguish themselves from competitors by subjecting corporate operations to independent scrutiny and establishing a verifiable chain of custody for products. These companies are beginning to accept that compliance with the laws of the countries in which they operate may not be sufficient to protect the environment or vulnerable communities. Some corporations acknowledge the need for compliance with international codes, protocols, covenants, declarations, instruments, and customs that protect basic human rights, self-determination, cultural integrity, labor and social rights, and the natural environment.

In an effort to assess the environmental and social impacts of mining, in 2002 the International Institute for Environment and Development published a comprehensive review of major issues facing the mining sector, a result of a two-year research project known as “Mining, Minerals and Sustainable Development” (MMSD). The report was commissioned by the World Business Council on Sustainable Development (WBCSD) and was sponsored and funded in large part by major mining companies. A number of these companies also formed a new industry trade association, the International Council on Mining and Metals (ICMM), with a mandate to promote sustainable development in the sector.

Subsequent to the MMSD research effort, the World Bank commissioned a review of that institution’s lending in the extractive industries sector. This two-year, stakeholder-driven process resulted in a detailed report on the impacts of the of the World Bank’s extractive industries lending portfolio on poverty alleviation and sustainable development. The report included recommendations for actions the Bank should take to ensure that future lending in these sectors contributes to sustainable development while minimizing negative environmental impacts.

In addition to these overarching reviews, separate initiatives led by the mining industry, NGOs, and other civil society groups have addressed specific aspects related to the social and environmental impacts of mining.[1] Examples include:

- Regional and global meetings of civil society groups in London, Bali, and the United States in which NGOs and community groups have identified and articulated best practices via declarations, demands, and policy position papers.
- Launching of a No Dirty Gold campaign (www.nodirtygold.org) to publicize the impacts of mining and promote the adoption of best practices in the gold mining industry. The campaign targets consumers and retailers of products that use gold (such as jewelry and high-tech products) although the policy objectives are applicable across the mining sector.
- A dialogue between the World Conservation Union (IUCN) and ICMM to address biodiversity conservation and mining issues. The results of the dialogue to date have included a commitment on the part of ICMM members to respect World Heritage sites as "no go" zones, a publication with case studies highlighting good practice in the mining sector in relation to biodiversity conservation. A good practice guidance document on mining and biodiversity conservation is also being drafted.
- A dialogue between conservation organizations and the mining industry in South Africa.
- A new GRI supplement for the mining sector developed in collaboration with ICMM and NGO stakeholders aimed at standardizing the way mining companies report their environmental and social impacts.
- Regional collaboration between NGOs, such as Earth Watch Europe and Rio Tinto, to strengthen the capacity of mining companies with regard to biodiversity conservation measures.
- An industry-NGO collaboration to address issues related to mining legacies and to prevent the creation of legacy sites in the future (the Eden Project).
- The Extractive Industries Transparency Initiative, which seeks to end corrupt practices by compelling governments and companies to disclose payments made and received with respect to extractive industry development.
- The Voluntary Principles on Security and Human Rights, which seeks to end human rights abuses linked to corporate security personnel operating in conflict zones.
- More than 30 private banks have signed on to the "Equator Principles," committing them to following International Finance Corporation (IFC) standards in their lending practices for project loans above $50 million. While not aimed directly at the mining sector, the banks collectively represent more than 75 percent of all project finance and influence lending in the mining sector.

While collectively covering a broad range of issues related to mining, none of these initiatives alone will provide the basis for developing comprehensive principles and standards for the mining industry. This framework builds on the above examples and others in an attempt to provide a basis for future dialogues on desired mining practices.

[1] For a comprehensive listing and review of mining initiatives see Walker and Howard (2002).

Methodology and Limitations

This framework is based on a comprehensive review of documents from major international and national initiatives, meetings, position statements, and other expressions of "best practices" developed by the mining industry, NGOs, other civil society groups, trade associations, and the international financial sector. Where possible, the authors referenced existing government regulations, but a comprehensive review of all government legislation related to mining was not undertaken for this project. Positions on varying topics were summarized and organized according to constituent support. The draft framework was reviewed by experts in various sectors (NGO, industry, government, labor, and research community).

Because governments have not developed a common approach to addressing the social and environmental impacts of mining, capturing the position of governments would require an exhaustive comparative analysis of legal and regulatory frameworks. This was not possible given the timeframe and resources of this project, and therefore government practices and positions are reflected only with respect to specific cases the authors encountered during their research. In addition, the authors were limited by the public availability of information as to the positions of the institutions involved.

Notwithstanding the authors' inability to fully represent government legislation and practice, many of the issues outlined in this framework will require government involvement and buy-in. The establishment of voluntary standards is not sufficient to ensure that mining maximizes benefits and minimizes costs to the environment and local communities. Many of the "leading edge" issues outlined in this framework require a functioning government context, including strong regulations and the will and capacity to enforce laws. The authors envision the issues outlined in this framework as a contribution to the development of such legal and policy frameworks, and consider that governments will also need to be at the table during future stakeholder engagement processes. It is especially critical to engage developing-country government representatives at an early stage. New mining legislation is being drafted in many such countries, presenting a key opportunity to establish the appropriate legislative and governance frameworks necessary to ensure environmentally and socially responsible mining.

Sectoral Scope

The framework addresses issues related primarily to hard-rock mining (base and precious metals and gemstones). Although coal mining presents some of the same environmental and social challenges as hard-rock mining, it is also associated with additional problems (e.g., climate change) which fell beyond the scope of this research effort. To make the framework more manageable, the authors chose not to include the fossil fuel industries in their analysis. However, some issues outlined in the discussions on no-go zones, social issues, and governance are broadly relevant to all extractive industries and even to many major development projects (e.g., dam construction).

Audience and Organization of the Framework

This report consists of (1) an executive summary recommending "leading edge" mining standards and/or principles, and (2) a more comprehensive explanation of these issues. The document identifies areas where opinions converge, recommending specific principles, standards, or criteria where appropriate. It also highlights issues where considerable debate remains. Although the authors expect that most readers will focus their attention on the executive summary and recommended options, these should be considered in light of the supporting research.

The framework is aimed at four audiences actively engaged in a discussion of environmental and social impacts of, and suggested guidelines for, mining: (1) governments and government agencies; (2) civil society groups, including NGOs; (3) the mining industry; and (4) financial institutions, including public and private banks as well as insurers.

The framework is intended to provide expert guidance to these audiences, and to catalyze further debate and discussion among stakeholders interested in improving mining standards. Its origins are rooted in a specific request articulated by those participating in the "Responsible Source Minerals Dialogue" for clarity on environmentally and socially responsible mining practices. However, because it seeks to summarize and build upon the work done by others, the framework is also intended to catalyze a broader debate among private sector actors involved in the mining sector, civil society groups, and technical experts regarding the conditions under which mining could proceed in an environmentally and socially "responsible" manner.

As a working document, the responsible mine framework is not intended to represent final positions on particular issues. Rather, it conveys a "snapshot" of current practices, state of knowledge, and information on issues of concern to those seeking environmentally and socially responsible mining. Over time, we hope the document will be supplemented and updated to reflect new knowledge and progress toward more responsible mine practices.

Current Practice versus Desired Future Standards

The issues covered in the framework were divided into widely accepted practices—"the norm"—and desired future standards—"the leading edge." These are further defined as follows:

> *The Norm.* There are certain environmental and social practices that companies commonly adopt to comply with regulations or to ensure more cost-effective site management in industrialized nations. For example, liners are almost universally used for ore processing at heap leach mines. Other accepted norms in industrialized nations include the development of a mine reclamation plan, with financial provisions; emergency plans for the safe transport and storage of cyanide; and plans to prevent surface and groundwater contamination. There may, however, be disagreement as to the degree and means by which these plans and practices should be implemented.

The U.S. government requires formal procedures for mining-related permits, known as "Best Management Practices." Many mining companies also use the phrase "best practices" to describe those practices they consider to be the minimum (and sometimes maximum) effort required to operate a mine. However, the industry's use of the term is rarely accompanied by a detailed definition of such practices.

Because there is no universal agreement among governments, industry, and NGOs as to what constitutes "best practices," the authors chose to use professional experience to catalogue those practices that are generally accepted by governments, mining companies, and financiers, and are usually implemented at most new mines in developed countries.

The Leading Edge. Leading edge practices are those that, in the opinion of the authors, could generate significant environmental and social improvements if implemented. They are also typically supported by the literature and may be promoted by several of the four audiences identified above. The authors consider that "leading edge" issues need to be addressed in the context of identifying conditions for "responsible" mining, but further dialogue among stakeholders is necessary to develop a common and accepted approach to environmentally and socially responsible mining. This draft document does not substitute for such a process.

A detailed description of universally and near-universally accepted plans and practices would be too lengthy for this framework. It would also obscure the key debate regarding environmental and social standards—the discussion of how and whether to implement leading edge practices. Thus, the framework discusses only briefly current or widely accepted practices. This does not imply that companies should not be encouraged to adopt "the norm," but rather that the greatest environmental and social improvements will be achieved by addressing "leading edge" issues.

Thematic Organization

The framework is divided into four chapters, according to the following main themes:

1. Deciding whether a mine is an appropriate use of land. This chapter addresses the need to preserve ecologically and culturally significant areas and to weigh land and resource use options. While many other technical and social issues may lead stakeholders to decide that mining should not proceed, these issues are considered in subsequent chapters.

2. Ensuring environmentally responsible mine development. Once a decision to mine has been made, certain environmental provisions should be in place to avoid negative outcomes and capitalize on benefits. This chapter details the environmental issues that need to be addressed at each stage of mine development.

3. Ensuring that mine development results in benefits to workers and affected communities. This includes issues related to free, prior, and informed consent of communities for mining, health and safety provisions, capturing benefits more broadly, and developing consent agreements with communities.

4. Ensuring that appropriate corporate governance structures are in place. This includes broader corporate or national governance provisions to ensure transparency in revenue payments between governments and companies, and reporting company progress made toward implementing responsible practices.

A Principles- and Rights-Based Approach to Mineral Development

Past efforts to address the social and environmental impacts of economic activities have highlighted common principles and a rights-based approach to development. Many of these principles are enshrined in international agreements and constituted key underpinnings for the work conducted in prior stakeholder engagement processes, such as the World Commission on Dams and the Extractive Industries Review (EIR).[2]

Common Principles

The recommendations highlighted in this report are based on seven common principles stemming from international agreements, such as Agenda 21 and the Rio Declaration, which have been incorporated into many domestic jurisdictions around the world:

1. Sustainable development. The principle of sustainable development provides the key foundation for the remaining six principles. Initially articulated in the Brundtland Commission report, sustainable development is commonly accepted to mean "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[3]

2. Equity. Principle 3 of the Rio Declaration states that development must occur in an equitable manner that respects the rights of future generations while considering the current needs of society. Under the concept of "common but differentiated responsibilities," Principle 7 calls on developed countries to assume leadership for sustainable development, given the pressures their societies place on the global environment. Similarly, Chapter 4 of Agenda 21 states that developed country governments should take the lead in reducing unsustainable practices and reducing consumption. Chapter 24 of Agenda 21 sets specific action items to ensure that women are treated equally to men. In this context, equity implies fairness in the distribution of costs and benefits of development, as well as in the treatment of women and other traditionally marginalized groups.

3. Participatory decision making. Principle 10 of the Rio Declaration states that all citizens have the right to participate in natural resource development decisions, which must be accompanied by effective access to information and opportunities to seek appropriate forms of redress and accountability if agreements are not respected. The principle of participatory decision making is also an element of the Aarhus Convention signed by European governments in 1998. This

[2] This section is based on the following: World Bank (2003); WCD (2000); Oxfam Community Aid Abroad (2004) MPC (2001); MMSD (2002).
[3] WCED (1987: 43).

convention includes binding provisions related to access to information, participation, and judicial redress.

4. *Accountability and transparency.* Corporations are increasingly held accountable to a broad range of stakeholders, including their shareholders, employees, affected communities, and governments. In the mining sector, this implies that companies should support independent monitoring and oversight and disclose the impacts of their operations.

5. Precautionary approach. Article 15 of the Rio Declaration states:

> *In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*[4]

Interpreted in the context of mining, the precautionary principle implies that governments have the right to decide against promoting development and to establish regulations to prevent serious environmental degradation when development proceeds. It also implies that governments should exercise precaution when considering new mining technologies that may negatively impact the livelihoods of future as well as current generations.

6. Efficiency. Chapter 4 of Agenda 21 calls on governments to promote efficient production by optimizing natural resource use and minimizing waste. For the mining industry, this principle implies greater efficiency in the use of energy and water, maximizing reuse and recycling of materials, including the metals produced, and minimizing waste. This "cradle to grave" approach to mineral development also entails establishing links throughout the mineral product supply chain to promote greater eco-efficiency in minerals use.

7. Polluter pays. National legislative frameworks have recognized that individuals and corporations responsible for generating pollution are responsible for paying for cleanup and environmental remediation. The polluter pays principle is captured in Principle 16 of the Rio Declaration, which states that countries are responsible for ensuring that polluters pay for costs associated with development.

Basic Rights

Human beings are endowed with basic rights recognized in several United Nations (UN) conventions, such as the Universal Declaration of Human Rights; the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work; the UN Declaration on the Right to Development; the International Covenant on Economic, Social, and Cultural Rights; and the International Covenant on Civil and Political Rights. Many NGOs have advocated that governments and the private sector respect and promote these basic human rights, and consider risks to local communities when making development decisions.[5]

[4] UNEP (1992)
[5] WCD (2000: 198); Oxfam Community Aid Abroad (2004: 3).

Human rights. All human beings, regardless of gender, ethnicity, age, race, religion, political views, or sexual orientation are entitled to universal claims that cannot be taken away or exchanged. These rights are well recognized in many international instruments, including the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant of Economic, Social and Cultural Rights. Such rights include a decent standard of living, medical care, social services, employment, self-determination, and representation, as well as freedom from violence, freedom of thought, and freedom of expression.

Basic labor rights. The ILO sets International Labour Standards in the form of conventions and recommendations, which are considered minimum standards for respecting basic labor rights. The ILO considers eight conventions fundamental to ensuring the rights of human beings at work. These conventions encompass the rights to freedom of association, the abolition of forced labor, equality, workplace health and safety, and the elimination of child labor.[6]

Right to development. The UN Declaration on the Right to Development aims to improve the livelihoods of all people. This agreement stipulates that governments should ensure that development is based on the free and fair participation of all citizens and the equitable distribution of benefits. The declaration also states that all people have the right to self determination. The right to self-determination is also articulated in the International Covenant on Economic, Social, and Cultural Rights.

Right to a healthy environment. The concept of the right to a healthy environment emerged as a result of the 1992 UN Convention on Environment and Development. In 1993, the United Nations Environment Programme (UNEP) proposed a law that would recognize the "…right of present and future generations to enjoy a healthy environment and decent quality of life…" Many national constitutions also provide for a fundamental right to a healthy environment. In recent years, growing support has emerged for recognition of both the right to development and the right to a healthy environment through the principle of sustainable development.

Indigenous peoples' rights. By virtue of their special status as traditional occupants in many parts of the world, and their close relationship to land and natural resources, indigenous peoples have been accorded separate recognition in UN conventions and declarations. The draft UN Declaration on the Rights of Indigenous Peoples specifically addresses indigenous peoples' rights. These instruments recognize specific rights for indigenous peoples, including their rights to existence as peoples, self-determination, control over their territories, cultural integrity, a healthy and productive environment, political organization and expression, and the right to fair compensation for damage to their lands. Such rights are also enshrined in the ILO's Convention 169, a binding treaty that addresses indigenous and tribal peoples' rights. Such agreements form the basis for the rights of indigenous peoples to free, prior, and informed consent of any development activities that affect their territories and livelihoods.

[6] Available online at www.ilo.org/public/english/standards/norm/whatare/fundam/index.htm.

Women's rights. Although in theory women are endowed with the same rights as men, they remain marginalized in many parts of the world. Recognition of the disparity between men and women in their access to and enjoyment of human rights has led to several declarations and international instruments that seek to promote the empowerment of women. Chapter 24 of Agenda 21 sets specific objectives for eliminating disparities in the treatment of men and women, including increasing their participation in decision making, eliminating violence and abuse, and providing equal access to health care and education.

CHAPTER 1: DECIDING WHETHER MINING IS APPROPRIATE LAND USE

I. Importance of "No Go" Zones

Because mining implies modification of landscapes and possible long-term impacts on communities and natural resources, some places with mineral potential may be so environmentally or socially sensitive that the risks posed by development in these areas are too high. Such areas, generally referred to as "no go" zones, can include socio-cultural as well as environmentally valuable areas. This chapter examines how to determine whether a potential mine site is an appropriate use of land resources. Other environmental conditions (e.g., exceptionally high seismicity) or practices (e.g., riverine tailings disposal) may also lead to a "no go" decision, but these are addressed in Chapter 2. The absence of community consent for a mine project may also result in a "no go" decision; this issue is covered more fully in Chapter 3.

High Conservation Value Areas

Natural habitats serve a variety of important functions, many of which are critical for maintaining ecosystem and human health. Some areas may be rich in biodiversity and others provide essential ecosystem services, such as clean water, climate regulation, and soil maintenance. Many governments, researchers, and conservation NGOs seek to protect such areas from destructive human activities to ensure that important ecosystem functions and services remain intact. According to biodiversity assessments, habitat destruction triggered by human activities is the most important cause of biodiversity loss.[7] Because these areas are especially vulnerable to habitat modifications, mining may be incompatible with maintaining critical ecosystem values.

Over the last century, governments have committed to protecting natural resources through regional and international agreements. Early agreements, such as the 1909 Convention for the Preservation of Wild Animals, Birds, and Fisheries in Africa and the 1968 African Convention on Nature and Natural Resources focused on species preservation. More recent conventions have acknowledged the importance of integrating conservation and sustainable use of natural resources outside of protected areas.[8]

Most national governments have developed systems for designating protected areas as a means of conserving natural resources for future generations to enjoy. In many countries, regional and local governments also designate certain areas as protected for the purposes of recreation, tourism, or specific conservation and land uses. National governments may also choose to nominate especially significant protected areas for inclusion in international registries of important places, a designation that can carry with it increased funding and resources to manage the area.

[7] McNeely et al. (1995: 751).
[8] UNESCO (1972); Ramsar Convention Bureau (n.d.); United Nations (1992); Phillips (2003).

Officially delineated protected areas currently cover approximately 10 percent of the world's terrestrial habitats. However, many regions and ecosystems remain under-represented; a recent assessment of the state of the world's protected areas found that the Pacific region has the fewest protected areas, and less than 0.5 percent of the world's oceans and seas is protected.[9] In addition, many remote parts of the world, such as the island of New Guinea and deep sea environments, remain largely unassessed for their biodiversity value. New research continues to reveal the extent to which these places may contain highly critical biological resources.

In light of evolving knowledge and emerging research, some high conservation value areas are likely candidates for protected status in the future. In addition, notwithstanding the potential increase in new protected area designations, many conservationists believe that protected areas are insufficient to guarantee conservation of valuable ecosystems.[10] Some argue that conserving ecosystem values that span broad landscapes with mixed uses will require an integrated approach to land use management that respects ecosystem values, but allows for a wide range of human activities.[11] According to conservation biologists, conservation of valuable biological resources may be best achieved by establishing corridors linking protected areas to allow species greater mobility and a better chance of long-term survival.[12]

Reconciling Natural "No Go" Zones and Community Rights to Free, Prior, and Informed Consent

The early paradigm of protected areas envisioned setting aside wilderness for scenic or hunting purposes, often at the expense of local communities dependent on natural resources for their livelihoods. Therefore, many local communities and indigenous groups—especially in Africa—felt constrained by the use restrictions imposed on them when a protected area was established. This traditional paradigm has shifted in recent years toward an increasing recognition of the importance of involving local communities and indigenous peoples in the identification and management of new protected areas.

Given the need to take into account the livelihoods of local communities and indigenous peoples, any discussion of "no go" zones with regard to mining must be reflective of the interests not only of the global conservation community, but also those who depend on natural resources to guarantee sustainable livelihoods. *In other words, a policy on natural "no go" zones must be consistent with a community's right to give free, prior, and informed consent for development to occur* (see Section II.A in Chapter 3). In reality, managing potential conflicts between global interests (maintaining a global wealth of ecosystem goods and services) and local needs (providing economic opportunities for communities to improve their livelihoods) will constitute the biggest challenge to establishing and managing a "no go" zones policy. These goals are not necessarily at odds with one another, but in some circumstances, trade-offs may be required. Where there are conflicts between global and local interests, a transparent and participatory decision-making process should be followed to ensure that—at a minimum—those bearing the

[9] Chape et al. (2003).
[10] Soule (1986).
[11] Miller (1996); Saunier and Meganck (1996).
[12] Soule (1986).

costs of decision outcomes are compensated fairly. Elements of such a process are contained in this and other chapters (particularly Chapter 4).

II. Options for Defining "No Go" Zones

Over the last five years, many NGOs have pressured mining companies and financial institutions to adopt a set of "no go" zones for mining. Although ICMM's recognition that World Heritage Sites constitute "no go" zones signaled progress in this debate, adoption of a broader set of "no go" zones has met with resistance from mining companies and financial institutions because of:[13]

(1) Difficulties identifying a broadly applicable set of "no go" zones.
(2) Uncertainty in the mining industry and financial sector regarding criteria for establishing protected areas.
(3) A belief in the mining industry that current best practices would sufficiently minimize negative environmental impacts in sensitive areas.
(4) A need for access to land to fuel growing demands for metals and for poor countries to develop.

The Norm

Many mining companies, multilateral development banks, export credit agencies, and private banks acknowledge the importance of ensuring that mining does not hinder valuable ecosystems upon which societies depend. Most large mining companies address biodiversity issues through site-specific mitigation of impacts at the mine site level.

Few companies have implemented broader policies identifying natural "no go" zones, although there is growing recognition of the existence of natural "no go" zones. In 2003, ICMM members committed to consider World Heritage Sites off-limits to mineral development. World Heritage Sites are areas nominated by national governments to be considered of global natural or cultural importance. Governments are committed to identifying and protecting these areas through the World Heritage Convention, to which more than 175 countries are signatories. The acknowledgement by the mining industry of World Heritage Sites as "no go" zones represents and important step forward and a precedent upon which further action to identify additional "no go" zones can be built.

Leading Edge Issues

Almost any company considering a commitment on "no go" zones for mining could be considered "on the leading edge." This is especially true for private financial institutions, most of which have yet to develop "exclusion lists" that preclude extractive activities in any legally designated protected area. Because World Heritage Sites are already recognized by many major

[13] MMSD (2002: 162–66).

mining companies to be "no go" zones, the leading edge issues below focus on those areas where more work is required.

(1) Mining should not occur in IUCN I–IV protected areas or in any marine protected areas (categories I–VI).

The World Conservation Union (IUCN)—a network comprising 82 countries, 112 government agencies, 774 national NGOs, 82 international NGOs, and 34 affiliates—provides guidance to governments on the development and implementation of protected areas and land use policies. The UN maintains a global list of protected areas, which is maintained by the World Conservation Monitoring Centre (WCMC) based on the reports WCMC receives. The categorization system encompasses six management classes (I–VI), with I–IV being managed primarily for conservation purposes.[14] Categories V and VI are considered "mixed use" zones, where recreation and sustainable resource extraction are allowed.

The classification system does not hold the force of law, but it is designed to reflect the commitments governments make toward conserving their natural heritage. The categories were not designed to be prescriptive, nor to mandate particular uses. Rather they are meant to describe types of protected area management for the purpose of allowing greater global comparison among protected areas. Theoretically, governments indicate the appropriate IUCN category for listing purposes when a protected area is established. In reality, often WCMC itself must assign the category, and errors of interpretation are possible.

Most conservation NGOs and many civil society groups support these areas as "no go" zones for mining. In 2000, IUCN members passed a recommendation urging governments to place IUCN I–IV protected areas off-limits to extractive industry development. Known as Recommendation 2.82, this has since been followed by support from many in the NGO community for declaring protected areas off-limits for mining. In subsequent global meetings, IUCN members reaffirmed their commitment to Recommendation 2.82, and it remains IUCN's policy with respect to mining in protected areas.

In addition, scientists agree that the marine environment is highly threatened and that further protection of this biome is needed. Less than 1 percent of the marine environment is protected; marine protected areas are relatively few in number and any mixed use allowed is for sustainable fishing or tourism purposes. Mining in such areas would directly threaten the uses for which the reserve was established.

Although industry groups have not explicitly endorsed a "no go" zones policy encompassing IUCN I–IV protected areas, there is growing recognition of the importance of protecting natural heritage. ICMM's sustainability principles specifically state that members will "respect legally designated protected areas," although further definition on how this principle will be applied or verified is not provided.

[14] The categories are as follows: I-Strict Nature Reserves and Wilderness Areas; II-Natural Monument; III-National Park; IV-Wildlife Refuge; V-Protected Landscape/Seascape; VI-Managed Resource Protected Area.

Among export credit agencies, the Overseas Private Investment Corporation's (OPIC) environmental handbook states that projects operating in or impacting IUCN I–IV protected areas are categorically excluded from OPIC loans and guarantees. The World Bank does not support projects that would result in degradation or destruction of IUCN I–IV protected areas and some banks that have signed the "Equator Principles" have adopted similar policies.[15] ABN Amro includes the IUCN protected area classification system as a filter in its decision-making system for lending in the extractive industry sectors.

National legislation in some countries explicitly prohibits mining in IUCN I–IV protected areas.[16] For example, U.S. policy effectively precludes mining in designated wilderness areas and national parks (categories I and III, respectively), unless a valid claim was established prior to establishment of the protected area.[17] In practice, however, some governments have allowed mining in protected areas by passing additional legislation or executive orders.[18]

Three primary concerns have emerged with respect to the adoption of IUCN I–IV protected areas as "no go" zones: (1) IUCN protected area categories describe similarities in protected area management objectives, but do not speak to an area's importance for conserving biodiversity, its conservation status, or the effectiveness of its management; 2) adoption of the categories is voluntary; and 3) they are not yet universally implemented.

In part to address the first concern, IUCN in partnership with Cardiff University undertook the "Speaking a Common Language" project to identify how the categorization system could be better applied when protected areas are established. Final results were reported at the Fifth World Parks Congress in 2003 and a working group has been subsequently established to implement the project's recommendations. While some modifications will be made to ensure consistent application of the categories, the basic framework remains intact and is expected to become the global standard for protected areas classification.

With respect to the second concern, other management frameworks (e.g., those prepared by the International Standards Organisation—ISO) are also voluntary. It is much more important that the categories be clearly defined and a process exist to ensure they are consistently applied. In this respect, participants at the Fifth World Parks Congress recommended that the World Commission on Protected Areas investigate the potential for certification or other voluntary reporting mechanisms to address issues related to comparability between protected areas and to promote their adoption as voluntary standards.

Finally, as the categorization system is improved, it will gain further acceptance by national governments and other stakeholders, thereby ensuring its adoption as a global standard. Results

[15] Citigroup and Bank of America adopted policies reflecting the World Bank's Natural Habitats Policy (OP 4.04). However, it is not clear how these institutions will determine project lending activities' potential for degradation or destruction of protected areas—nor are there monitoring measures in place to ensure that such degradation does not occur.
[16] For example, Philippine Mining Law 1995 and Indonesian Forestry Law 1999. No mining occurs in wilderness areas in the United States; it occurs in less than 10 percent of national parks (Humphries 1996).
[17] However, the U.S. delegation to the 2000 World Conservation Congress also publicly dissented to the passage of Amman's recommendation 2.82.
[18] In 2004 the Indonesian Prime Minister signed an executive order allowing mining in protected forests, some of which are classified as IUCN I–IV protected areas.

from recent Conferences of the Parties to the Convention on Biological Diversity (CBD) have already begun to build support among many governments toward adoption of the categorization system.[19]

(2) Mining should not occur in Ramsar sites that are categorized as IUCN I–IV protected areas.

Ramsar sites comprise wetlands deemed to have global value according to ecological, biological, or hydrologic criteria, nominated by governments for inclusion on the "Montreaux Record." More than 1,200 wetlands sites have been listed under the convention, covering nearly 2 million square kilometers, and many comprise key habitat for threatened or endangered migratory bird species. Unlike World Heritage sites, however, Ramsar sites are deemed to be valuable for sustainable use as well as conservation objectives.

The Ramsar Convention recommends the "wise use" of wetlands, but it does not clearly articulate activities or uses that do not constitute "wise use." Such determination is left up to government discretion. However, the Convention also empowers local communities to influence decisions regarding what uses (or degree of protection) a Ramsar site will be subject to. Although Ramsar sites are generally interpreted to be managed for multiple uses, Article 4.1 of the Convention encourages governments to set aside valuable wetlands for protection.

Because Ramsar sites are categorized according to the IUCN protected area classification system, some conservation NGOs have advocated a policy that would consider all IUCN I–IV Ramsar sites as "no go" zones.[20] Others have called for all Ramsar Sites to be considered "no go" zones for extractive industry development.[21] Several export credit agencies consider Ramsar sites sensitive areas, requiring additional due diligence to determine whether development should be supported.[22] OPIC treats Ramsar sites according to the IUCN category to which they are assigned (i.e., Ramsar sites within IUCN I–IV categories would be considered "no go"). Given that the Ramsar Convention does not intend for all wetlands listed on the Montreaux Record to be off limits to development, a policy that is consistent with the IUCN classification system should be followed.

(3) A multistakeholder process should be used to identify additional areas of high conservation value that qualify as "no go" zones.

The current protected areas system does not fully encompass all areas of high conservation value. In some parts of the world (e.g., Pacific Islands, Guyana), there is no official protected area system, although these places are among the most biologically rich in the world. Some protected areas (e.g., proclaimed and critical watersheds in the Philippines) are not categorized as IUCN I–IV protected areas, but they are considered in national laws as "no go" zones for mining.

[19] Pers. comm. Rafiq Mohammad, March 9, 2005.
[20] Dudley and Stolton (2002: 9).
[21] Rich (2004).
[22] For example, OPIC, the French Export Credit Agency (COFACE), and the British Export Credit Agency (ECGD) all have policies in this regard.

State or provincial authorities may also define protected areas where development activities are restricted. Countries have taken steps to define these sensitive areas, sometimes with the help of conservation biologists and other experts.

Recognizing that high conservation value areas exist outside officially designated protected areas, some NGOs have sought consideration of such areas as "no go" zones for mining, a call that was echoed in the World Bank's EIR.[23] NGOs contend that some biologically valuable areas may become future protected areas while others are considered too environmentally or socially sensitive for mining to occur (e.g., areas with high species diversity, small islands, mountaintops, oceans, sacred groves, and conflict zones).[24]

Although many financial institutions and mining companies recognize the importance of conserving areas of high biodiversity, most prefer to define potential "no go" zones on a case-by-case basis, based on the likelihood that negative impacts to biodiversity will be mitigated.[25, 26] Some financial institutions have defined exclusionary lists prohibiting investment in industrial or extractive industry projects in "high conservation value," "intact," or "endangered" forests.[27]

For the most part, however, financial institutions with policies guiding investment in sensitive ecosystems have adopted the World Bank/IFC's safeguard approach, which precludes investment in projects that involve "significant conversion of critical natural habitats."[28] The World Bank keeps an internal list of areas that meet its definition of "critical natural habitat" owing to their species richness, degree of endemism, rarity, vulnerability of species, representativeness, and integrity of ecosystem processes. Investments in such areas may occur if the IFC determines that the project sponsor will implement "adequate" mitigation measures, there are no feasible alternatives for the project or its siting, and the benefits are determined to outweigh the costs.[29] OPIC has taken the IFC natural habitats safeguard policy one step further by stating that all "critical natural habitats" are off-limits for industrial or extractive investment.

In practice, however, the World Bank's Natural Habitats Safeguard Policy has proven difficult to implement. There are no datasets that identify "critical natural habitats" in a way that would

[23] The final report of the Extractive Industries Review recommended that the World Bank not finance any projects that "affect critical natural habitats." The report does not define what such a commitment would mean. World Bank (2003: 57).
[24] Activist NGOs consulted by the Extractive Industries Review called upon the World Bank not to support projects in sacred groves. Activist civil society groups that signed the Bali Declaration strongly advocated for a global set of "no go" zones that would encompass small islands, mountaintops, and conflict zones, in addition to officially designated protected areas.
[25] Principle 7 of the ICMM Sustainable Development Principles states only that members will "[s]upport the development and implementation of scientifically sound, inclusive and transparent procedures for integrated approaches to land use planning, biodiversity, conservation and mining."
[26] EBI (2003: 39).
[27] Citibank states that it will only finance preservation and "light, non-extractive uses of forest resources in forest areas of high ecological value" (See www.citicorp.com). Bank of America's new forestry commitment precludes any industrial activities (forestry, mining, oil, gas) in primary forests, high conservation value forests, and other intact forests. Similarly, ABN Amro's forest policy states that the bank "does not finance projects or operations, which will result in resource extraction from, or the clearing of, either primary or high conservation value forests." ABN AMRO (2001). Belgian export credit agencies (Delcredre and FINEXPO) do not support projects operating in "endangered" forests.
[28] World Bank (1998a). See also Citibank's environmental policy online at www.citigroup.com.
[29] World Bank (1998a).

allow for their clear designation as "no go" zones in a global policy. Scientists still have an incomplete understanding of the relationship among species, their habitat requirements, and their resilience. Although there is considerable evidence in the literature suggesting that intact habitat is critical for ensuring species survival, minimum habitat size requirements differ depending on the size and range of the species to be conserved.[30]

Conservation organizations such as the World Wildlife Fund (WWF) and Conservation International (CI) have mapped global conservation priorities, but the results are too coarse at a global level to be considered "no go" zones. For example, World Resources Institute's (WRI) intact forests maps for Russia and Canada are useful for identifying forests where caution may be warranted, but the landscapes mapped include broad swaths of forest where industrial activity may have been part of the landscape for decades. Implementing a commitment that precluded mining in all tropical forests might limit the options of many developing countries for improving their citizens' livelihoods if development were to proceed under the right conditions.

Outside IUCN I–IV protected areas, a global commitment based on identification of specific sites is not likely to be feasible. However, biological criteria, such as species richness, endemism, intactness, and rarity can be used to determine when an environmentally sensitive area might qualify as a "no go" zone. Actual definition of "no go" zones will likely require a stakeholder engagement process that determines the degree of risk that affected stakeholders are willing to accept.[31] Designing this process and defining the appropriate biological criteria to be considered in a "no go" decision constitute the key challenges that NGOs, mining companies, and financial institutions face to implement a truly leading edge commitment on "no go" zones.

(4) Companies should ensure that their projects provide net conservation benefits that are consistent with maintaining the biological resources and ecosystem services on which local communities depend.

Several conservation organizations have called on companies to invest in "conservation offsets" when operating in high conservation value areas. Some companies have supported a "no net loss" approach to their operations in areas of high biodiversity.[32] In 2003, Rio Tinto announced that it would pursue a policy of "net biodiversity gain" when operating in areas of high conservation value. The concept of "conservation offsets" is also reflected in the World Bank's Natural Habitats policy, and in working drafts of IFC's revised Environment Policy.[33]

In theory, conservation offsets would be implemented after all other issues related to community consent, compensation, and social benefits had been addressed. However, the concept of "conservation offsets" has not been sufficiently tested at a global level to warrant its full

[30] Beier (1993: 94–108); Laidlaw (2000: 1639–48); Terborgh (1992: 283–92); Thiollay (1989: 128–37); Armbruster and Lande (1993: 602–10).
[31] Miranda et al. (2003: 46–47); FOE-I (2002); Dudley and Stolton (2002: 9, 12).
[32] EBI (2003); Mulongoy and Chape (2004: 43).
[33] World Bank, OP4.04; IFC, Environmental and Social Performance Standards, Performance Standard 6, version dated February 5, 2005.

adoption. Key questions need to be addressed. For example, at what scale is a conservation offset appropriate and who makes this determination?

That companies are considering the concept of biodiversity gain rather than minimizing losses is a significant improvement. However, the above questions related to scale and appropriateness must be addressed, and the offset should be designed in a transparent and collaborative manner to ensure than such approaches do not result in a form of payment to further conservation interests alone.

CHAPTER 2: ENSURING ENVIRONMENTALLY RESPONSIBLE MINING

I. Introduction

For many years government agencies, mining industry associations, individual mining companies and NGOs have expressed a desire for criteria by which they can measure the environmental performance—and ultimately the environmental acceptability—of mining projects. The development and application of such widely accepted criteria is in the interest of all sectors involved in mining projects. With these criteria, governments could develop unambiguous standards to condition permits required for mine development and operation. NGOs could use such criteria as benchmarks against which to measure the acceptability of mine development proposals, as well as the environmental performance of operating mines. Mining companies could apply clear guidelines to measure the environmental component of their social license to operate.

Although these sectors acknowledge the need for environmental guidelines for responsible mining, their development remains contentious. Over the years, some NGOs have developed lists of prescriptive criteria to pressure agencies and mining companies to correct environmental issues at mine sites. Although the mining industry recognizes the need for such guidelines, many companies prefer a voluntary approach to implementing environmentally and socially responsible practices.

Stakeholder opinions also differ regarding the details and application of environmental guidelines. For example, some groups doubt that mining can be conducted in an environmentally and socially responsible manner. Others are concerned with specific practices. For example: Should the use of cyanide be allowed? Is ocean disposal of mining waste acceptable? Should mines that will require the perpetual treatment of water be allowed? Should all open pits be backfilled? The answers to these questions are not straightforward, and the debate on these issues throughout the NGO community, the mining industry, government agencies, financial institutions, and metal product retailers can be contentious.

The mining industry is under considerable pressure to improve its environmental performance. Some companies would like to use their environmental record to enhance their market/financial performance and/or to access ore bodies. But companies vary in their technical and financial capacity—and sometimes institutional will—to develop and adopt environmental best practices.

In general, environmental policies and guidelines are best implemented and monitored at the mine site, where the impacts occur. Measuring and reporting at the corporate level is important, especially to evaluate a company's governance policies and practices, but it cannot take the place of site-based reporting. Although environmental policies are often initially developed and adopted at the corporate level, examining the implementation of these policies at a mine site level provides a true measure of a company's environmental success or failure on the ground. Site-based reporting allows more effective compliance monitoring and it allows companies to make and monitor new commitments as new mines are opened. Such an approach is essential

because new mines, or mine expansions, provide the ideal opportunity to advance best practice in the sector.

This chapter aims to capture the critical elements of each site-specific environmental issue and to provide a brief justification regarding why adoption of the recommended leading edge guideline will lead to improved environmental performance. Because the chapter covers numerous environmental issues, the amount of background information provided is limited.

II. Leading Edge Issues

A. Exploration

Mineral exploration is a phased process, beginning with geologic reconnaissance and geochemical sampling, followed by geologic sampling and geophysical reconnaissance, and ending with core drilling to sample target minerals at depth. The early stages of exploration are relatively benign with regard to surface disturbance, but may generate transportation-related issues. Significant surface disturbance can occur in the final stages of exploration, where drill rigs are needed, and where multimillion-dollar tunnels are occasionally used to access ore deposits for detailed drilling and mapping. If mineral exploration reaches the drilling or tunneling stage, regulatory agencies require oversight and financial assurance to mitigate potential environmental damage.

Junior mining companies hold the rights to explore many of the world's undeveloped mineral deposits. Financing for these companies is sometimes very speculative. Exploration financing has typically been secured through more speculative markets, such as the TSX Venture Exchange in Canada or the Over-the-Counter Bulletin Board in the United States. When a junior company identifies a mineable deposit, it often sells its rights to the deposit, or enters into a joint venture partnership with a major mining company to develop a mine. In these instances major mining companies provide technical expertise and financial connections that are needed to develop the project.

The Norm

The exploration stage of mining generally receives the least scrutiny from government agencies, NGOs, and the public. However, because exploration is increasingly competing with other land uses (e.g., viewsheds, recreation, religious and cultural uses), the mining industry has begun to take a closer look at exploration practices. At least one industry association, the Prospectors and Development Association of Canada, has developed detailed guidelines for mineral exploration.[34]

[34] PDAC (2004).

Leading Edge Issues

Mining requires investing in a large number of exploration projects before a viable operating mine can be developed. Many exploration projects are developed by companies with few formal corporate environmental and social policies or without adequate government oversight, which in some cases has led to significant negative environmental impacts. To avoid significant environmental damage (e.g., from drilling, road building, and tunneling), companies should adopt universally accepted best practices to protect the environment. Some major mining companies are already developing policies in this area, encompassing such practices as reclamation of exploration roads; recycling of drilling muds; and full environmental assessment of projects with significant environmental disturbance, such as exploration tunnels.

(1) Details of the exploration project and potential impacts should be made available to affected communities and area residents in an appropriate language and format, and should be made accessible to the public.

Land disturbance caused by exploration activities, such as drilling, trenching, or road construction should require public notification, planning, and permitting. The first step in determining whether an exploration project might have significant environmental, social, or economic impacts is to make project information available to those who may be potentially impacted. The potential impacts of exploration may not be fully understood by either the exploration company or by regulators, given that it is difficult to accurately predict the impacts of a mine at such an early stage.

Government agencies in the United States already require this practice, and the Canadian mining industry has shown recent leadership on this issue.[35] The Prospectors and Developers Association of Canada recommends "providing information in a complete and timely manner and, to reduce misunderstanding, in language understood by the majority in the community."[36] This position is also supported by several researchers from the NGO community.[37]

The financial sector has not been significantly involved with exploration issues because large lenders are unlikely to finance exploration projects.

(2) To cover the lasting environmental impacts of the exploration phase, companies should provide adequate financial guarantees to pay for prompt cleanup, reclamation, and long-term monitoring and maintenance.

Without a financial guarantee related to exploration guidelines and planning, there would be no practical way to accomplish the desired cleanup. These sureties often consist of bonds that apply to a specific project area. Bonds can be posted for multiple exploration projects, but must be tracked to ensure that the total coverage amount does not exceed the total financial bond obligation.

[35] USDA (2004: 4); USDOI (2003: 500); Republic of South Africa (2004).
[36] PDAC (2004: Chapter 17, Community Engagement).
[37] Oxfam Community Aid Abroad (2004: 24); Rosenfeld et al. (2000: Section 4.3.4).

Financial sureties for exploration projects are required by a number of government agencies, especially in the United States.[38] But even when financial guarantees for exploration are required, regulators sometimes do not adequately monitor exploration projects to detect damage, or do not require bonds large enough to cover damages that have occurred.

B. Environmental Impact Analysis

Environmental Impact Analysis (EIA) and its many name variations encompass an attempt to predict, and suggest mitigations for, the environmental and socioeconomic changes related to a development project.[39] EIA is becoming broadly, although not universally, accepted by all stakeholders as a useful and necessary tool. The level of impact required to trigger the development of an EIA is still subject to debate, although it is generally accepted that a new mine, or major expansion of an existing mine, would qualify for such analysis. There are still many government agencies, in both developed and developing countries that do not require the development of an EIA. This allows mines in many countries, including the United States, to be approved without having undergone a thorough environmental analysis.

The lack of any formal accountability tied to these analyses is an inherent weakness in the EIA process. The accuracy of predictions in the EIA for environmental impacts and mitigations, social assessments, socioeconomic benefits, and actual project construction and operation details are seldom compared to actual results after a mine goes into operation. The actual details of mine construction and compliance with environmental regulations are usually tied to regulatory permits, which may not reflect concerns or guarantee assurances that were made in the EIA.

The Norm

Most stakeholders agree that mine development requires rigorous environmental analysis and transparent public engagement. However, because the EIA process is time consuming, expensive, often politically charged, and poses significant technical challenges, stakeholder opinions vary on how this process should be implemented. For instance, in Canada the EIA process does not encompass the depth of analysis that is typical in the United States and many developing countries. In Canada decisions regarding mine operation can be left until later stages of project development—e.g., reclamation plans, financial sureties, and post-closure water treatment requirements.

[38] USDA (2004: 4); USDOI (2003: 500).

[39] Environmental Impact Analyses/Statements are often required by governments or financial institutions. Sometimes this assessment is performed on an ad hoc basis by government agencies that have no regulatory requirement for this analysis, but see the need because of the complicated nature of a proposed project, and the need for informed public involvement in the development decisions. Sometimes the assessments are voluntarily preformed by the project proponent, although these efforts have often lacked informed public involvement in scoping the breadth of the analysis and resultant development decision.

Leading Edge Issues

(1) Stakeholders should be given adequate notification, time, financial support to pay for technical resources, and access to supporting information, so that participation in the EIA process is effective.

The need for public involvement, access to supporting information, and adequate time to review and comment on EIAs is broadly accepted by all sectors. However, providing financial support for stakeholder involvement remains controversial. An EIA and its supporting documentation are highly technical documents, often including details related to geology, ore processing, and proposals for disposing of mine waste that poses significant environmental risk. Properly assessing the potential risks of a proposed mine requires consulting experts knowledgeable in these topics to assist those most likely to be affected by the mine in understanding the potential environmental, social, and economic impacts of its development. The industry and government agencies have access to such experts. However, many civil society groups are wary of the analysis they receive from industry or government experts. Several civil society groups have proposed that companies or government agencies provide financial support so that these groups can hire their own technical experts.[40] Expert analysis that is provided independently of the industry or governments can help build community confidence and a common basis of understanding.

The MMSD report supported this proposal in principle, but some in the mining industry have thus far wanted to evaluate such a proposal on a case-by-case basis.[41] OPIC[42] as well as Australia's Ministerial Council on Mineral and Petroleum Resources and Minerals Council of Australia[43] strongly support public involvement, but have thus far not addressed financial support for communities and civil society groups to hire their own experts.

(2) Companies should collect adequate baseline data during the EIA process.

Baseline data—especially on surface and groundwater quality, existing wildlife, the presence and health of aquatic organisms, as well as meteorological data—necessary to understand the water balance at a project site are critical to evaluating the potential impacts of mine development. Ideally baseline data collection should begin at the exploration stage.

Baseline data are also important for social and economic considerations. Although determining whether enough baseline data have been collected to form an adequate basis for drawing conclusions in an EIA is somewhat subjective and site specific, all parties stand to lose if assumptions are based on poor or inadequate data in an EIA.

[40] World Bank (2003: 21, 47, 50); Solomon (2003a: 31); MPC (2001: 26–29); Miranda et al. (2003: 48).
[41] MMSD (2002: 224, 265, 301).
[42] OPIC (2004: Public Consultation and Disclosure Section).
[43] MCMPR and Minerals Council of Australia (2003: Chapter 2—Stakeholder Engagement, p. 6).

The adequacy of baseline data required for an EIA should be determined by the details of the project, its anticipated environmental and social impacts, and the type of monitoring that will be required once the project is developed. Baseline data should be evaluated by an independent expert to ensure that all environmental and social parameters have been accounted for.

(3) Environmental costs, including those associated with regulatory oversight, reclamation, closure, and post-closure monitoring and maintenance should be included in the environmental impact assessment.

While there is near universal acceptance that the costs of reclaiming and closing a mine should be included in an EIA, opinions differ as to how much detail should be provided at the mine proposal stage. The Extractive Industries Review (2003), Miranda et al. (2003), and the Mineral Policy Center (2001) recommend a detailed analysis of the reclamation and closure costs. World Bank guidelines support early submission of a reclamation plan and calculation of mine closure costs, but do not specify the level of analysis required to accurately estimate these costs.[44]

Establishing an accurate estimate of the costs of mine development is necessary to assess whether environmentally sound mine closure is technically feasible and economically viable.[45]

(4) Environmental assessment should include worst-case scenarios and analyses of off-site impacts. Companies should work with potentially affected communities to identify potential worst-case emergency scenarios and to develop appropriate response strategies.

Many EIAs do not include an analysis of worst-case environmental and social risk scenarios for proposed mines. For example, if a large tailings dam is proposed upstream of human dwellings, the impacts of dam failure due to a large earthquake should be analyzed. Although such potential failures may not be anticipated as part of mine development, consideration of them as worst-case scenarios would lead companies to institute more conservative dam design. Since 1982, the International Council on Large Dams has published guidelines for safer and environmentally responsible tailings dam design, but such measures have not been widely adopted. Tailings incidents continue to occur regularly, with an average of two major incidents documented per year between 1995 and 2001.[46]

Many larger mining companies are employing risk management analyses to evaluate the potential impacts of mine accidents. As part of standard due diligence and good risk management practices, companies should include obvious worst-case scenarios and their impact on nearby communities in their EIAs, including tailings and waste rock containment failure, process plant spills, temporary or premature mine closure, and a thorough analysis of the socioeconomic impacts (e.g., educational, medical, civil infrastructure).

[44] World Bank (1998b: 269).
[45] These costs should include detailed cost calculations of (1) contingency; (2) mobilization and demobilization; (3) engineering redesign; (3) engineering, procurement; (4) construction management; (5) contractor overhead; (6) contractor profit, agency administration; (7) inflation.
[46] ICOLD (2001: 6).

The potential for off-site negative impacts during the transportation of hazardous materials to the mine site is often not thoroughly considered in EIAs. For example, cyanide is often used in large quantities at gold mines. A cyanide spill can cause significant environmental impact and social disruption.

As past cyanide spill incidents have shown, it is extremely important that companies have a mine spill response plan that is tied closely to community emergency planning. These plans should also be regularly tested so that communications and coordination difficulties do not contribute to confusion and delay should an accident occur.

C. Water Contamination and Use

Water constitutes the primary vehicle by which mining contamination can be transferred to the environment. Metals that have been relatively immobile in a tightly bound subsurface can leach into surface and ground waters in large quantities when mined rock is exposed to air and water. Metals at very low dissolved levels can negatively affect aquatic organisms. Since waste rock dumps are not lined, containment of contaminants from waste rock is frequently an issue.

Water consumption is also of concern, especially in water-scarce regions. Large mines typically consume significant amounts of water in processing mined ore. Because companies recognize that water consumption is tied directly to processing costs and to the ability to operate during dry periods, the industry has been in the forefront of water conservation measures. However, despite this economic reality, some mining operations continue to consume excess amounts of water. Because water use is often closely related to water discharge from the mine, water conservation can both save water and minimize the discharge of contaminants.

The Norm

Regulators and companies have long recognized the impacts of mining-related contamination on water resources, and companies generally seek to contain contamination within the mine site. Despite this goal, water contamination continues to be the most common environmental impact from mining.

Leading Edge Issues

There are several leading edge practices that could mitigate water contamination problems, and lead to water conservation at mines.

(1) Companies should make discharge reports of contaminants to surface and ground waters publicly available.

Companies seldom release monitoring information directly to the public, except for aggregate information occasionally provided in annual reports. Water quality monitoring reports collected by government agencies are sometimes available to the public, but getting comprehensive data in a timely manner is typically difficult. Water quality information collected beyond regulatory requirements is seldom available to the public.

NGOs such as the Mineral Policy Center have long called for public reporting of water quality monitoring data.[47] The Mining Sector Supplement to the Global Reporting Initiative (GRI), led by the mining industry, also calls for public reporting of "significant discharges to water by type"[48] (see further details on GRI in Chapter 4). The World Bank requires water quality monitoring for projects it funds, and suggests that: "The results should be reported to the responsible authorities and relevant parties, as required."[49] Although World Bank guidelines do not specify these "relevant parties," the message is clear: such reports should be publicly disclosed.

Because the public may not be aware of a problem until the impacts have been detected, disclosure is one of the most effective ways to improve performance. Disclosure of water quality monitoring results can act as an early warning system, making it much more likely that mitigating measures will be implemented in a timely fashion. Such disclosure can also allow companies to cooperatively develop innovative solutions with communities affected by mining before problems become costly and difficult to remediate.

(2) A qualified professional[50] should certify that water treatment, or groundwater pumping, will not be required in perpetuity to meet surface or groundwater quality standards beyond the boundary of the mine.

Some civil society groups propose that no new mine be approved if it would require water treatment in perpetuity.[51] If a mining company goes bankrupt, paying for water treatment becomes a public burden. Water treatment that includes groundwater pumping can negatively impact local aquifers if conducted over the long term, and it can be costly. Even if a responsible mine operator allocates funds for perpetual water treatment, the public is still at substantial financial risk because of imprecision in quantifying the actual treatment costs over a period of possibly hundreds of years and predicting the actual effect of interest rates and inflation on funds put aside to pay for water treatment.

From a practical perspective, development of some mines—in particular, sulfide base metal mines—will probably require mining potentially acid generating deposits. However, given that current technology allows for more precise identification and treatment of potentially acid-

[47] MPC (2001: 31).
[48] GRI (2003: #EN12).
[49] World Bank (1998b: 270).
[50] For the purposes of discussion a "qualified professional" might be an individual, consulting firm, or company. A qualified professional certifying recommendations should in turn be "certified" by a professional association or reviewing body.
[51] CSP2 (2000).

generating deposits,[52] it should be required for a mine proponent to design a project so that perpetual water treatment will not be required. Mines requiring perpetual water treatment should not be opened because the long-term financial and environmental risks to the public are too great.

To ensure the quality of predictive water quality analyses, a qualified mining professional should certify that perpetual water treatment will not be required. Such certification would require a mining professional to put his or her reputation on the line, thus ensuring more cautious analysis and acknowledgement of uncertainties by those charged with evaluating the potential for acid mine generation.

(3) Minimizing water usage should be a stated mine management goal.

Minimizing water consumption should be a stated goal of development plans for proposed mines, and for the operating plans of existing mines. NGOs, the general public, local and regional government, water authorities, and farmers are concerned with water conservation and sustainability, and the industry recognizes that minimizing water consumption leads to cost savings and greater operational reliability.[53] Even though most stakeholders recognize that minimizing water consumption is important, it remains unaddressed in some projects because it has not been explicitly made an operational goal.

(4) Mine dewatering should be minimized to prevent all undesirable impacts on ground and surface waters, including seeps and springs.

Dewatering to facilitate the development of large open pits can lead to depletion of groundwater resources, loss of discharge from nearby springs, and pit lakes that form after mine abandonment, causing additional loss of substantial amounts of water due to evaporation in arid environments. This evaporative loss can have long-term negative impacts on groundwater and surface water flows. Rosenfeld et al. (2000: 29) recommend minimizing mining-related groundwater dewatering in arid areas.

Many mines are located in water-stressed parts of the world.[54] However, mine operators and government regulators tend to ignore dewatering as a consumptive use because the water is returned to the environment. However, in dewatering both surface and underground mine workings groundwater is often discharged to the surface where a significant volume can be lost to evaporation and surface use.[55] Although this may result in additional water resources for

[52] For example, see the work on ARD prediction done by the Mine Environment Neutral Drainage (MEND) Program in Canada (www.nrcan.gc.ca/mms/canmet-mtb/mmsl-lmsm/mend), and the International Network for Acid Prevention (INAP) (www.inap.com.au).
[53] For example, see Rosenfeld et al. (2000: 29); GRI (2004: #EN5, #EN21, #EN22); World Bank (1998b: 269).
[54] For example, in the arid portions of Australia, North and South America, and South Africa. See map 2 in Miranda et al. (2003).
[55] Some mines do recharge to groundwater wells or through infiltration galleries, but even these disposal methods do not necessarily ensure that the water is returned to the aquifer that it came from. Water that is "infiltrated" also tends to leach dissolved solids as it migrates back to the water table, and this can change the character of the groundwater.

present surface water users, it can come at the cost of a significant loss in groundwater available for future uses. In addition, contamination may make the water unsuitable for non-mining uses. Mine operators should take proactive measures to ensure that long-term groundwater losses from the discharge from mine dewatering operations do not adversely impact other groundwater uses.

D. Acid Mine (Rock) Drainage

The cause of most water contamination from mining is directly related to Acid Mine (Rock) Drainage, commonly referred to as ARD. Predicting the potential for ARD is an important part of the environmental screening for a proposed mining project. Industry and government agencies have made significant progress in identifying the sources of ARD, and in adopting mitigation measures to prevent ARD when potentially acid-generating material is exposed as a part of mining.[56] However, even after 30 years of experience implementing present predictive measures, it is still difficult to determine with certainty whether ARD will cause problems at a given mine.

Acid production occurs when mine waste contains insufficient buffering minerals to neutralize the acid produced as sulfide and minerals oxidize. It is virtually unavoidable when mining sulfide ores. ARD is a major concern for the public—and for government agencies that provide permits for proposed mines. Assuring the public and government agencies that the potential for negative impacts is both understood and accurately disclosed is an important part of the EIA process, and constitutes part of the operational reporting by a mine operator.

One potential approach to this issue might to publicly state objectives and measurement criteria to benchmark the point at which ARD would be recognized as a "problem," and to define what actions would be taken to address the problem at that time. As part of this process, the public would need better access to monitoring data than is typically the case.

Pollution, as defined by the relevant water quality standards, should not go beyond the boundary of the mine site. Groundwater pollution beyond the mine site boundary has been allowed in some cases if the contaminated groundwater is not used—or planned for any future use. As many mines are located in remote areas, the nearest neighbor may be miles away. However, if allowed to spread unchecked, groundwater pollution could contaminate an aquifer a significant distance away from the mine. In addition, policy makers are unable to accurately predict future demands for this resource. Permitting widespread groundwater contamination precludes the option for valuable future uses.

[56] Significant joint government/industry-funded programs include MEND in Canada, INAP, government programs such as those in the U.S. Geological Survey, U.S. Office of Surface Mining, British Columbia Acid Mine Drainage Task Force, and individual research efforts by companies such as Placer Dome, Rio Tinto, and others.

The Norm

It is now widely accepted that testing for ARD should be done as a part of the EIA in advance of mine development.[57] However, there is still no agreement on the exact sampling methods to be employed. Finally, there are no universally accepted standard specifying the number of samples needed to support conclusions on ARD prediction.

Leading Edge Issues

(1) Companies should conduct adequate pre-mining and operational mine sampling and analysis for acid-producing minerals, based on accepted practices and appropriately documented, site-specific professional judgment. Sampling and analysis should be conducted in accordance with the best available practices and techniques.[58]

Ongoing monitoring of potentially acid-producing materials during the lifetime of a mine is necessary to properly inventory this material, and to assist in creating a record of the location and chemical characteristics of potentially acid-generating material, so that mitigation measures can be developed. Operational sampling is practiced by many mining companies, and is now required by a number of regulatory agencies.[59] Companies routinely sample drill hole material to determine whether it can be graded as ore or waste. A simple laboratory processing step could be added to drill hole sampling procedures at a low cost to determine the acid-generating potential of these samples.

E. Air

The Norm

Air quality problems have not posed major problems at modern mines—with some notable exceptions: lead, mercury, and dust.

Airborne contamination from lead mining and processing is very difficult to contain, and has caused significant human health, environmental, and livestock impacts. Mine workers and livestock grazing immediately downwind of a mine are generally the most impacted. Complete enclosure of ore processing and transport facilities is required to contain lead contamination.

The metal mining industry is responsible for approximately 9 percent of the mercury air emissions by U.S. industry, according to reports submitted to the U.S. Toxic Release

[57] For example, see Oxfam Community Aid Abroad (2004: 24); World Bank (2003: 56); Placer Dome (2004b); MMSD (2002: 238–39, 248); IFC (2004: 5); World Bank (1998b: 268); BCARD (1998: Chapter 3).
[58] See, for example, those practices and methods recommended in Buka Environmental et al. (in press).
[59] For example, Fort Knox Mine, Fairbanks, Arkansas and Alaska Department of Environmental Conservation.

Inventory.[60] Much of this is due to mercury emitted from high temperature ore processing methods. Some companies are addressing the problem by installing mercury precipitation equipment on their processing facilities, but emissions continue to pose risks to human and ecological health.[61]

Finally, to address the problems posed by silica dust in underground mining, many countries have instituted regulations, mining methods, safety equipment and testing procedures. Problems with dust pollution in underground mining are often related to the lack of, or inadequate enforcement of, these regulations. Dust can also pose human health problems in surface mining operations, although not to the same extent as in underground mining. At most surface mines road watering is done to suppress dust during warm weather. Excessive dust has created a nuisance for communities located near some mines in developing countries, especially in areas where roads are unpaved.

Monitoring of air emissions is generally poor. While companies employ sophisticated modeling techniques to predict air emissions, detailed monitoring data is often lacking, and what is available is not readily accessible by the public, making verification of compliance with regulations difficult.

Leading Edge Issues

(1) Companies should monitor and publicly report airborne hazardous emissions (particularly mercury, lead, and greenhouse gases).

Many in the NGO and financial communities support monitoring and public reporting of air emissions. Some companies already report greenhouse gas emissions as a part of their annual sustainability reports, and greenhouse gas reporting is a part of the GRI recommended process. While industry generally reports greenhouse gas emissions, it has not been so forthcoming with air emission data on metals. Companies may find reporting airborne metals emissions difficult owing to accounting problems. Reporting of metals transported through water emissions is becoming more common, signaling that reporting airborne metal emissions could follow.

As was demonstrated in the United States with the Toxic Release Inventory reporting of airborne mercury emissions, the potential advantage to public disclosure of contaminants is that it can trigger earlier interventions to prevent problems before they occur. Airborne emissions should be monitored and reported, and these reports should include metals as well as particulates and greenhouse gases.

[60] U.S. Environmental Protection Agency (2002).

[61] Mercury is toxic at very low concentrations, so even the emission of small amounts of mercury can create contamination problems downwind from emission sources. In addition, many mining-mercury emission sources are not regulated, or are under voluntary emission compliance programs. This means that best-available technology may not be in use even at those facilities that do have mercury scrubbers.

F. Energy Consumption

Because mining requires crushing ore into sand or clay-sized particles, and the refining of metal ores requires further energy use, mining consumes roughly 4–7 percent of all energy used worldwide; other estimates based on International Energy Agency data put it higher at 7–10 percent.[62]

The Norm

As with water consumption, mining companies have been interested in pursuing energy saving measures because of the direct correlation to operational cost savings.

Leading Edge Issues

(1) Reducing energy use and greenhouse gas emissions should be a stated mine management goal.

A sizable share of the energy used in extraction, refining, and processing metals comes from burning fossil fuels such as coal and oil, which contributes to global climate change. World Bank guidelines recommend that companies seek to reduce greenhouse gas emissions, thereby decreasing energy use.[63] The mining industry supports this goal, as greenhouse gas reduction is associated with a reduction in energy use, resulting in potentially significant cost savings.

Energy conservation rather than substitution from renewable sources would provide the greatest opportunity for reductions in greenhouse gas emissions. Some opportunities for substitution with renewable energy sources exist (e.g., hydro- and wind power), but these are site specific. Because companies stand to gain financially from energy conservation measures, energy and greenhouse gas reduction should be an explicit management goal for each mine site. Without such a commitment, the reduction will only occur incidentally as a part of isolated energy saving efforts at a mine.

G. Noise

The Norm

Because many mines are located in remote areas, noise pollution has not been a major issue. However, an increasing number of mines are posing noise problems because they are

[62] Worldwatch Institute (2003: Table 6-1); MMSD (2002: 251).
[63] For example, see Rosenfeld et al. (2000: 32); World Bank (2003: 65).

encroaching on populated areas. There are no universally accepted noise standards, and noise regulations are applied at the local level, if they exist at all.

Leading Edge Issues

(1) Maximum noise level requirements should be implemented at the project boundary.

Noise—especially from blasting and the movement of large vehicles—is recognized as a potential problem when the mine is near populated areas. Therefore, noise levels should be recognized as a mine management issue. Where mines are near populated areas, companies should adopt quantitative noise guidelines—such as those required by international financial institutions including the Export-Import Bank of the United States and the International Finance Corporation—and monitor compliance.

H. Waste Management

The Norm

Mine operators generally seek to provide safe containment for tailings and waste rock, to minimize off-site contamination due to this waste, and to have a hazardous materials spill emergency response plan in place.

Leading Edge Issues

The leading edge issues on waste management fall into two categories: (1) the timing, degree of public participation, and methodology involved with safe containment of mining wastes and emergency planning; and (2) contentious waste disposal practices, particularly riverine and submarine disposal.

(1) Tailings impoundments and waste rock dumps should be constructed to minimize threats to public and worker safety, and to decrease the costs of long-term maintenance.

Mining companies, international financial institutions, and NGOs agree that tailings impoundments and waste rock dumps should be constructed to minimize threats to public and worker safety, thereby minimizing the costs of long-term maintenance, since this is in the best interest of all parties. Nevertheless, companies continue to propose the development of mines that could threaten public safety or result in accidents that take workers' lives. Examples of such practices include tailings dam designs that might be unnecessarily risky, or steeply sloped waste rock dumps that might fail and result in worker fatalities. The issue of public and worker safety in designing mine waste storage facilities should be explicitly addressed in design criteria.

(2) Tailings impoundments and waste rock dumps should be constructed in a manner that minimizes the release of contaminants by installing liners if seepage would result in groundwater contamination. In addition, waste facilities should have adequate monitoring and seepage collection systems to detect and collect any contaminants released in the immediate vicinity.

Mining companies, NGOs, financial institutions, and governments agree that waste storage facilities should minimize the release of contaminants, and that companies should practice proper monitoring and waste isolation. However, the conditions under which a liner should be required are subject to debate. Some argue that the use of liners should be standard practice,[64] while others prefer a case-by-case analysis owing to cost considerations.[65] In some cases, soil or ground conditions, such as a clay layer or very tight bedrock, can provide "natural" containment. Unfortunately, tailings impoundments that were thought to have natural containment have caused pollution and negative environmental impacts.

Notwithstanding the potential pollution from tailings impoundments, contamination from waste rock piles is more common than that emanating from tailings impoundments, since waste rock is rarely placed on artificial or engineered clay liners. One key to maintaining adequate containment is to institute a good monitoring system, and a viable strategy for collecting contamination if it is not contained by natural liners. Without a monitoring system, containment is not verifiable.

(3) Net acid-generating material should be segregated and/or isolated in waste facilities.

Many agree that acid-generating materials, especially waste rock, should be segregated and isolated in waste facilities.[66] However, implementing this goal still poses challenges. For example, some mines still rely solely on the neutralization of potentially acid-generating material by mixing it with acid-consuming material. But, since there is often no backup plan for halting contamination should the mixing approach fail, ARD continues to pose problems in many mines.

Many mines are also deficient in identifying and keeping records on the placement of potentially acid-generating material in waste dumps, which can make mitigating problems that arise after mine closure more difficult, costly, and less effective. Planning, testing, and record keeping for potentially acid-generating material should be a transparent part of the mine operating process.

[64] For example, see Rosenfeld et al. (2000: 33–34); Solomon (2003a: 33).
[65] For example, see SACM (2001: 55); IFC (2004: 4, 6); World Bank (1998b: 268); MCMPR (2003: 16, 18).
[66] For example, see MPC (2001: 37); Solomon (2003a: 33); World Bank (1998b: 268); BCARD (1998: Section 4); Placer Dome (2004b).

(4) Hazardous material minimization, disposal, and emergency response plans should be made publicly available.

While entities representing all sectors except financial institutions have endorsed the development of emergency response plans,[67] execution of these plans continues to pose problems.[68] Spill response plans should be publicly available, and such plans should be regularly tested in direct coordination with local communities to ensure that critical communication links are operational.[69]

(5) Rivers should not be used for the disposal of mine waste.

Disposal of mine waste, tailings and/or waste rock, into rivers has been extremely controversial for many years. This practice was allowed in the United States into the 1960s, but is now banned. Riverine disposal is still being used for several mines in the Asia-Pacific area, although some mining companies are acknowledging that such waste management methods are environmentally and socially unacceptable.

While there has been significant pressure for an industry-wide ban on riverine waste disposal, and the MMSD report states that there should be a clear commitment by industry and governments to avoid this practice in future projects,[70] only three mining companies have publicly stated that they will no longer utilize it as a waste disposal alternative.[71] Other companies are reluctant to join for fear of forgoing future development options. Financial institutions have adopted a similar approach by not categorically eliminating riverine waste disposal as an option, but endorsing it only when justified by an environmental analysis.[72]

While the process is effectively banned in most developed countries, including the United States, as noted above, and Canada,[73] this ban is not enshrined in national laws, and could technically be overturned by regulatory change—an unlikely outcome, given the low public acceptance of this practice in these countries. The practice is allowed in Papua New Guinea, but only as a result of an exemption provided by the national government to mining companies that allows their operations to sidestep national water quality standards. Notwithstanding this exception, riverine mining waste disposal is associated with serious environmental and social problems and thus should not be practiced in future mine operations.

[67] NGOs: MPC (2001: 33); World Bank (2003: 58); Solomon (2003a: 32). Governments—Australia: MCMPR (2003: 2); Industry: MMSD (2002: 399).
[68] For example, a cyanide spill response plan was in place at the Kumtor Mine in Kyrgyzstan when a cyanide transportation accident occurred on May 2, 1998. The coordination with local authorities was poor.
[69] See the UN's endorsement of this approach in UNEP (2001: 2).
[70] MMSD (2002: 250).
[71] Falconbridge, WMC, and BHP.
[72] World Bank (1998b: 268).
[73] USEPA regulations 40 CFR 440.102 (July 1, 04 edition); Canadian Metal Mining Effluent Regulations, P.C. 2002-987, June 6, 2002, updated August 31, 2004 [Minister of Fisheries and Oceans, pursuant to subsections 34(2), 36(5) and 38(9) of the Fisheries Act].

(6) Companies should not engage in shallow-water submarine waste disposal. Deep-water submarine waste disposal should not be used unless an independent assessment can demonstrate minimal environmental and social risks.

Marine waste disposal, also called submarine tailings disposal (STD) is a contentious issue. Although STD typically involves dumping tailings into the marine environment, companies may also use oceans to dispose of waste rock. The debate centers on a distinction between shallow and deep marine disposal, where "shallow" is usually described as the depth at which light still penetrates (approximately 300 feet below the surface) and "deep" is defined as the zone below which light cannot penetrate. Disposal of waste at shallow depths has been shown to significantly affect marine life, given that shallow marine environments are among the most biologically diverse. The impact of tailings and waste rock dumped at deeper depths is largely unknown, particularly because the deep sea is more difficult to access, and the relationship between deep sea organisms and other aquatic organisms is poorly understood.

Local communities, fishermen, some biologists, and NGOs are generally critical of STD,[74] and some propose a complete ban on this practice. Others stop short of calling for an absolute ban, but would support strict restrictions on potential STD disposal sites. Governments and some mining companies support deep STD while avoiding shallow STD, although one company has publicly stated that "…it is unlikely that the technology will be pursued in any of our future developments."[75] A group of companies recently proposed involving NGOs and governments in a research effort to address the technical issues of deep STD, but that process has stalled.[76] The World Bank has stated that STD is acceptable when justified by an environmental analysis.[77]

Given that disposal of waste in shallow depths has been known to severely impact marine biodiversity, shallow STD should not be planned or permitted as a means of waste disposal for new mines. There are many legitimate technical questions yet to be addressed for the disposal of mine waste at deeper depths. Barring adequate research to address the potential environmental and social impacts of deep sea tailings disposal, and given the significant concerns expressed by local communities over the implications of this practice on their livelihoods, mining companies should not propose mines with deep sea tailings disposal systems unless independent, scientific analysis can confirm minimal environmental and social impacts.[78]

[74] MPC (2001: 35); Rosenfeld et al. (2000: 38); World Bank (2003: 31–32, 57); Solomon (2003a: 33).
[75] See the BHP Billiton Web site at http://www.bhpbilliton.com/bb/sustainableDevelopment/environment.jsp (Go to Home > Sustainable Development > Environment). Visited on March 10, 2005.
[76] In 2004 several companies convened a stakeholder engagement process on submarine tailings disposal. In addition to NGO representatives, the process included CSIRO and CANMET participation. The process has not progressed further owing to a lack of administrative and management support.
[77] World Bank (1998b: 268).
[78] A detailed critique of submarine tailings disposal, as well as an outline of some of the technical needs to be addressed by independent scientific research, is available in the *Submarine Tailings Disposal Toolkit* (Project Underground and MiningWatch Canada 2002).

I. Cyanide

The use of cyanide, primarily in gold processing, has been a focal point for highlighting mining-related contamination because many jurisdictions have experienced significant water pollution problems associated with cyanide spills, and because the public is familiar with the acute toxicity associated with its use. Notwithstanding the toxicity of cyanide, heavy metal contamination is much more prevalent in mining operations and is of greater concern owing to its persistence and impact on the environment. However, the public has tended to focus less on the impacts of heavy metal contamination than on cyanide.

Some have called for a prohibition on the use of cyanide. If this were to be adopted, gold processing would have to be done by (1) another chemical lixiviant equivalent to cyanide to dissolve gold from host rock, and all similar lixiviants have greater potential environmental impacts than cyanide; (2) using only gravity methods, which are only viable for separating larger gold particles from host rock; or (3) shipping to a smelter for pyro-metallurgical separation (used only when base metals such as copper are also present in the ore). These processing approaches would be significantly more expensive than cyanide processing—except for gravity methods, which are cheaper than cyanide, but far less effective in recovering gold—and therefore would raise the market price of gold.

The Norm

Most mine operators recognize that cyanide levels must be reduced from processed material before waste is discharged into tailings ponds; that measures such as netting or floating covers should be used to protect wildlife on open processing ponds; and that the mine must utilize sound cyanide storage, safety, and transportation management plans.

Leading Edge Issues

(1) Mine operators should adopt the Cyanide Management Code, and third-party certification should be utilized to ensure that companies implement safe cyanide management.

A number of significant efforts to develop guidelines for cyanide management have been launched in recent years.[79] The most notable is the International Cyanide Management Code, prepared under the direction of a multistakeholder Steering Committee, whose members were chosen by UNEP and the International Council on Metals and the Environment.[80] The Code is a voluntary program for gold mining companies developed with strong industry participation.[81]

[79] SACM (2001).
[80] ICMI (2002: 2).
[81] The International Cyanide Management Code has come under heavy criticism from NGOs. While many accept the benefits that would derive from the issues that the code addresses, they are unwilling to support it because it fails to address the environmental and public health issues they consider critical.

The IFC has recommended that companies abide by the Code.[82] Environment Australia and the South African Chamber of Mines have also published cyanide management guideline documents.[83]

Adopting the Cyanide Code is a necessary, but not sufficient, step in solving the numerous problems associated with cyanide and mining waste. The Cyanide Code has several major deficiencies, among them are: adoption of and compliance with the Code is voluntary; there is a lack of truly independent auditing (auditors are selected and paid by the mine operator); several major species of cyanide byproducts (e.g., cyanate and thiocyanate) are not included in the monitoring, yet pose significant contamination risks; and there are no comprehensive guidelines for cyanide waste disposal facility closure.

Adopting of the Cyanide Code will help in reducing the number of cyanide transportation accidents, which itself will be a significant improvement, but having a truly comprehensive and effective cyanide management policy will require considerably more guidance than is provided in the International Cyanide Management Code.

J. Reclamation

Reclamation of mined sites is a universally accepted norm, although universal reclamation standards do not exist. Discussions over the adequacy of reclamation include (1) the final use that is appropriate for reclaimed mine lands; (2) whether re-contoured mine lands should be re-vegetated or whether reinvasion of natural vegetation is sufficient; (3) the timing of the reclamation process (whether it occurs concurrently with mining, or when it is most expedient for the mine operator); (4) whether open pits should be backfilled with waste in a way that does not degrade the environment; and (5) how much money should be set aside to guarantee that reclamation is accomplished, and what form of financial surety is required for this guarantee.

The Norm

Most companies agree that a mine reclamation plan should be in place prior to closure, with financial assurance to ensure that the plan can be executed if the mine operator becomes insolvent. Reclamation planning typically includes re-contouring the slopes of waste dumps to stable angles. However, the angle at which a slope is considered stable is sometimes an issue. Reestablishing vegetation to approximate pre-mining conditions is a universally accepted goal, but this practice is often planned only when it is clear that erosion of regraded slopes will occur. Backfilling of mined out underground areas and open pits is done only when it is economically competitive with waste storage options in other mine areas. Consultation with stakeholders is a common goal for all sectors, but there are different opinions on the timing and means by which this should occur.

[82] IFC (2004: 12).
[83] ENAUS (2003); SACM (2001).

Leading Edge Issues

The leading edge issues identified below are focused on fine-tuning the reclamation planning process, particularly with respect to the timing for developing a reclamation plan, ensuring appropriate post-mine land uses, and backfilling mine sites with mined out material. They are meant to provide some guidance on what should be included in a reclamation plan so that it conforms to progressive reclamation policies and is environmentally sound.

(1) Companies should develop a reclamation plan before operations begin that includes detailed cost estimates. The plan should be periodically revised to update reclamation practices and costs.

Mining companies, international financial institutions, and NGOs generally agree that a reclamation plan should be drafted during the proposal stages of mine permitting and planning, and that such a plan should include a detailed cost estimate for reclamation. Early drafting of the plan is important because the mine operator, regulators, and the public need to know what the area will look like after reclamation, whether the proposed reclamation scheme is technically feasible and affordable, and whether there are sufficient funds to carry out the reclamation tasks if the operator were to go bankrupt.

Because a pre-mining reclamation plan is largely conceptual, it is important to periodically update the plan goals, technical implementation details, and projected costs. Consensus is emerging among some governments and companies that formal reclamation updates should occur on a three- to five-year timeframe.[84]

(2) Companies should restore all disturbed areas so that they are consistent with future uses.

The future use of the reclaimed mined land should be clearly defined through a participatory process so that the public can evaluate the land uses that will be available after mining, and so that reclamation planning can be focused on this goal. There is broad consensus on the clear designation of a post-mining land use, but more effort needs to be placed on ensuring meaningful public input and reaching true consensus on a final land use designation.

(3) Companies should re-contour and stabilize disturbed areas. This should include the salvage, storage, and replacement of topsoil or other acceptable growth medium. Quantitative standards should be established for re-vegetation in the reclamation plan—and clear mitigation measures should be defined, to be implemented if these standards are not met.

The goal of re-contouring waste dumps and other mine facilities should be to make them stable to avoid erosion and slumping, to facilitate the post-mine land use, and to conform visually to other landforms in the area. Native species should be used in this effort; however, non-invasive

[84] ENAUS (2002: 14).

exotic species may sometimes be needed to temporarily stabilize slopes until native species can be reestablished. Where non-native species are used, a plan should exist to facilitate ultimate cover by native species. To facilitate re-vegetation, whether by seeding, planting, or with "natural re-vegetation," replacing whatever topsoil or growth material was present before mining can make a significant difference in reestablishing stable vegetation on a former mine site. Topsoil takes many years to build because it has a large organic component. Topsoil amendments should be considered, including but not limited to nutrients (such as nitrogen) and organics (mycorrhiza) that may have been lost during years of storage.

These measures are well supported by mining companies, financial institutions, and NGOs. Most companies routinely practice such restoration techniques, although the industry has not made specific commitments in this regard.

(4) Where acid-generating materials are exposed in the rock wall of the mine, companies should backfill the mine pit if this would minimize the likelihood and environmental impact of acid generation. Backfilling options must include reclamation practices and design to ensure that contaminated or acid-generating materials are not disposed of in a manner that will degrade surface or groundwater.

There is some debate on the technical merits of covering acid generating material in pit walls, and backfilling an exposed pit wall can be expensive. Environment Australia has recommend that companies backfill pits known to have acid-generating potential.[85] Although some NGOs have been advocating this practice for some time, only the more progressive government agencies (e.g., environmental departments) in developed countries have formally supported it. The potential environmental damage caused by exposing acid-generating materials to air and water is significant, but because of the potential costs associated with backfilling, companies will most likely implement this practice only when it is financially feasible or when they are required to do so. Pit backfilling decisions should be made on the basis of the degree to which such an action would prevent long-term environmental degradation and minimize potential future costs to taxpayers for environmental remediation.

(5) Where subsidence is considered likely, companies should backfill underground mine workings to prevent negative environmental impacts.

Subsidence due to the collapse of abandoned mine workings can cause significant long-term environmental damage by allowing water to flow unimpeded into mine workings, leaching contaminants as water travels through the mine site. In some cases, collapse can cause safety problems and property damage. The government of Australia and the U.S. Export-Import Bank have endorsed backfilling near surface underground mine workings.[86] From both an environmental and risk management standpoint, backfilling mined-out areas that are likely to cause surface subsidence constitutes good practice for underground mines.

[85] ENAUS (2002: 16).
[86] For example, see MPC (2001: 35); ENAUS (2002: 16); ExIm (2004, Annex A—Environmental Guidelines/Tailings Disposal).

(6) Underground workings and pits should be backfilled to minimize the size of waste and tailings disposal facilities.

The government of Australia, the World Bank, and some NGOs support minimizing the size of waste and tailings facilities by backfilling them, although not all sectors agree on how this should be accomplished.[87] Governments and the financial community factor the cost of backfilling into their consideration of whether such practice is feasible. The industry generally considers backfilling, but only when it can be proven that the practice is economically positive or neutral to operating costs.

As an initial measure, it is important to ensure that minimizing the size of waste facilities through backfilling is directly addressed during the planning stages of a mine. If companies seriously consider backfilling as a waste management practice in their EIAs, some economic advantages may also be identified. For example, it may be cheaper to backfill mined-out pits than to transport waste rock to new, more remote dumps. Similarly, backfilling mined-out areas may be more economical than expanding existing dams in mountainous areas.

K. Financial Guarantees

A financial guarantee is a critical component of the reclamation and post-closure process because it can be used to cover the costs of closure should the mine operator be unable to do so. The mining sector is vulnerable to significant fluctuations in metals prices, and many companies have gone bankrupt, sometimes before mine closure or reclamation is complete. Because closing a mine can typically cost tens of millions of dollars, regulators need a dependable source of funds to pay for the physical reclamation of the mine site as well as the necessary oversight by government officials. Since mine closure is the responsibility of the mine developer, these costs are not included in the budgets of regulatory agencies, nor should they be.

Government agencies need financial sureties that are readily available to ensure that mine reclamation occurs. Should a mining company default on its closure commitments, funds will be required immediately to operate and maintain mine facilities, such as water treatment plants.

The financial surety should be protected from frivolous legal challenges. Given the large size of most financial bonds, a surety agent stands to gain financially by collecting interest on the bond amount while potentially unsuccessful legal challenges are debated in the courts. Finally, the reclamation cost estimate upon which the surety is based must be accurate and up to date. Unfortunately, errors in these calculations have required millions of dollars of taxpayer subsidy to close bankrupt mines.[88]

[87] For example, see MPC (2001: 35); Rosenfeld et al. (2000: 27); ENAUS (2002: 3); IFC (2004: 5); World Bank (1998b: 269).
[88] Author's personal experience with bankruptcies at the Zortman-Landusky and Beal Mountain mines in Montana.

The Norm

Requiring financial sureties for large mines is an accepted practice in developed countries,[89] although opinions differ regarding the form of surety. Governments have employed a number of financial vehicles to meet surety requirements. These vehicles generally take two forms: independently guaranteed sureties and sureties guaranteed by mining companies. Because mining companies can and do go bankrupt, NGOs and governments favor sureties that are independent of the company operating the mine, usually in the form of a bond, letter of credit, cash deposit, or some combination of these instruments. However, the mining industry has found it increasingly difficult to obtain bonds for mining operations. As a result, companies are placing pressure on natural resource agencies in the United States to accept corporate guarantees—i.e., a financial surety guaranteed by the mine operator.

The financial sector has not developed specific requirements for mine sureties, although banks risk significant loss of capital if a mining company were to declare bankruptcy while still holding outstanding loans.

Leading Edge Issues

(1) Financial sureties should be reviewed and upgraded on a regular basis by the permitting agency, and the results of the review should be publicly disclosed.

Companies, NGOs, and governments generally acknowledge the importance of this issue, but there are still many instances where it is not being fully or even partially implemented.[90] Government permitting agencies have the mandate for reviewing financial sureties, and therefore bear the greatest responsibility for ensuring that financial sureties are regularly reviewed and updated. However, reviewing financial sureties requires time, as well as financial and technical expertise. For this reason, governments often have little incentive to perform this check on a frequent basis. The mining industry also has little incentive to push for frequent analysis of financial sureties, since the reviews almost always result in an increase in the surety amount. Taxpayers stand to lose the most, as they will ultimately bear the brunt of paying additional cleanup costs should bankruptcy occur.

The NGO community has pressured government agencies to perform timely and accurate reviews of financial sureties, but successes in this effort have been linked to actual bankruptcies, which resulted in significant expenditures of public funds to fill the gap between the financial surety and the actual closure cost.[91] The mining industry and governments should work more

[89] This practice has not become the norm in developing countries, where financial sureties may only be required at the exploration stage to ensure that mining companies do not hold national land for speculative purposes. See Bevilacqua et al. (2002).
[90] For example, see GRI (2004: MM18); MPC (2001: 39–40); World Bank (2003: 57); MCMPR (2003: Section 2).
[91] Financial failures of mining companies in Montana, South Dakota, and Nevada have required millions of dollars of public funds to complete the closure of bankrupt mines.

closely with NGOs to implement realistic review schedules and procedures for reviewing financial sureties.

(2) The public should have the right to comment on the adequacy of the reclamation and closure plan, the adequacy of the financial surety, and completion of reclamation activities prior to release of the financial surety.

The MMSD report recommended that closure plans be subjected to a public comment period.[92] The EIR report (2003), MPC (2001) and Rosenfeld et al. (2000) all recommend these practices. However, some governments are reluctant to allow public comment before release of the financial surety, if they allow for a public comment period at all.

(3) Financial surety instruments should be independently guaranteed, reliable, and readily liquid. Sureties should be regularly evaluated by independent analysts using accepted accounting methods. Self-bonding or corporate guarantees should not be permitted.

MPC (2001), Rosenfeld et al. (2000), the EIR report (2003), and Solomon (2003a) call for a secure financial instrument for reclamation surety, and regular review of the financial surety using "accepted accounting standards." The World Bank requires companies to set aside funds for reclamation over the life of the mine, but does not specify what financial instruments should be used.[93]

There is far less agreement among these sectors that self-bonding/corporate guarantees should not be utilized. NGOs do not consider corporate self-bonding instruments to be adequate financial guarantees, and in fact most U.S. government agencies do not allow corporate guarantees, although this is not explicitly stated in their general mining policy statements.[94] Those jurisdictions that allow corporate guarantees have yet to adopt guidelines that fully protect the public from a potential bankruptcy the same way that independently guaranteed sureties do.

Because of the complexity associated with establishing guidelines, developing contingency procedures in the case of bankruptcy, and diligently managing corporate guarantees, self-bonding or corporate guarantees should not be permitted.

[92] MMSD (2002: 245).
[93] World Bank (1998b: 269).
[94] For example, neither the U.S. Forest Service nor Bureau of Land Management will accept a corporate guarantee, and the only states that will accept corporate guarantees are Arizona, Colorado, Nevada, Utah, and Wyoming (from Kuipers 2000: I–14), and more recently (2004) Alaska and Michigan.

(4) Financial sureties should not be released until reclamation and closure are complete, all impacts have been mitigated, and cleanup has been shown to be effective for a sufficient period of time after mine closure.

MPC (2001: 39–40) and Rosenfeld et al. (2000: 71) argue that financial sureties should be released only when reclamation and closure have been completed and there are no lingering environmental impacts from mining operations. This issue could be addressed by combining surety release criteria with a public comment period to review the success of closure and reclamation efforts. As a result, taxpayers and affected communities would be less exposed to risks owing to closure problems that might occur after a government returns funds held through financial surety.

There are only isolated examples of public comment periods on the adequacy of mine reclamation. In the United States a single technical representative from a regulatory agency may be responsible for judging the adequacy of mine reclamation. Limiting review of mine closure opens the door to outside pressure from mining companies eager to close the books on a project that is no longer yielding positive returns. Once a financial surety has been returned, there is usually limited legal recourse if environmental impacts occur later on.

L. Post-Closure

Post-closure issues have often been ignored in mine closure planning, especially at the pre-mine planning stage. Post closure issues are generally categorized as monitoring and maintenance, water treatment, and catastrophic events.

Monitoring and maintenance issues include long-term water quality sampling, geotechnical inspections of tailings dams and waste rock facilities, and minor repair work such as regrading the slopes of dams and waste dumps and re-vegetation where primary seeding or planting have failed. If water treatment is required, significant financing will be necessary after the mine has closed. Long-term water treatment can double the cost of mine closure, which is why some advocate not allowing the development of mines requiring perpetual water treatment. If the company were to abandon the site without providing sufficient funds for perpetual water treatment, governments and taxpayers would be forced to pay cleanup costs.

Financial sureties are not generally required for catastrophic events such as earthquakes, floods, tailings dam failures, or the unanticipated onset of acid mine drainage after mine closure. Where such incidents have occurred the public has generally been responsible for a large part of the cleanup costs.[95] A national fund or financial pool could be established to pay for catastrophic events. However, at the moment the authors are not aware of any active legislative or regulatory proposals that address this issue.

[95] An example is the long-term water treatment due to AMD at the Summitville Mine in Colorado.

The Norm

Companies do not consistently address post-closure monitoring and maintenance issues as part of reclamation planning, and a financial surety is not consistently provided to address potential post-closure problems.

In the past five years many EIAs have included post-closure costs in their analyses, but this is not universally practiced, and some companies assume that—barring the need for post-mining water treatment—closing a mine will result in a "walk away" operation. That is, there will be no corporate financial or legal obligation for post-closure activities.

Leading Edge Issues

(1) Reclamation plans should include plans for post-closure monitoring and maintenance of all mine facilities, including surface and underground mine workings, tailings, and waste disposal facilities. The plan should include a funding mechanism for these elements.

Many in the NGO community, financial institutions, and the corporate sector consider that all mines should include planning for and financing of long-term monitoring and maintenance, with the aim of determining whether post-closure monitoring and maintenance considerations have been addressed in a systematic and consistent manner.

M. Monitoring and Oversight

Controversy surrounding monitoring is usually related to several issues: (1) monitoring data are almost always collected by the mining company; (2) mining companies consider some monitoring data to be confidential, especially those data that are not explicitly required by regulatory authorities; and (3) the public is not normally allowed access to the mine site to collect its own samples.

The Norm

Most mines seek to comply with all monitoring requirements specified by regulatory agencies, and companies strive to provide timely reports to regulatory agencies. All stakeholders consider compliance with monitoring requirements to be important.

Leading Edge Issues

(1) If permit violations occur, companies should commit to rapidly implementing corrections in order to maintain clean surface and groundwater.

Although there is general consensus that permit violations should be remedied, a fairly wide range of opinion exists on what constitutes "rapid" correction of permit violations. In addition, some in the NGO community argue not only that permit violations should be rapidly corrected, but also that these violations should be the subject of citizen legal actions and criminal penalties.[96] The Global Reporting Initiative supports public reporting of permit violations.[97] However, when remedies require significant investments in capital and operating expenses, industry implementation of these corrections can be slow.[98]

As a compromise between criminalization of permit violations and the assumption that violations will be promptly corrected, a written commitment on the part of the mine operator to expeditiously correct permit violations—for example, as the introductory part of a monitoring plan, or even as a corporate policy—might help make this a less contentious issue.

(2) The environmental performance of mines and the effectiveness of the regulatory agencies responsible for regulating mines should be addressed in an independent environmental audit. These audits should be conducted on a regular basis and the results should be made publicly available.

There are a number of examples where mining companies have structured successful monitoring agreements with communities.[99] Some NGOs[100] and the MMSD report [101] both proposed this approach. An Alaska government agency has adopted this approach in several specific instances with positive results.[102] Where it has been implemented, independent auditing has successfully provided an analysis of both mine and regulatory program effectiveness to government agencies. Independent analysis can also be used by the public and the industry to determine the

[96] Rosenfeld et al. (2000: 74); Solomon (2003a: 29).
[97] GRI (2003: 2, 5).
[98] An example of "slow" compliance with permit violations is exceedance of water quality standards with storm water runoff. Resolving storm water exceedances is often related to implementing vaguely defined best management practices. In this context, the practice might require construction of better setting ponds or collection and treatment of the storm water—both potentially costly procedures that companies are often reluctant to implement unless they are explicitly required by permit conditions.
[99] Examples include the agreement between the Stillwater Mining Company and community groups in Montana, as well as agreements with First Nations in Canada, including the Musslewhite Mine where a Community Support and Development Agreement was originally signed in 1982. A new Agreement was signed in November 2001, which covered the remaining life of the mine, and included revenue-sharing arrangements, economic development, and measures to continue to protect the local culture and environment.
[100] MPC (2001: 30–32); Solomon (2003a: 16, 23).
[101] MMSD (2002: 399, 403).
[102] Alaska Department of Environmental Conservation, Solid Waste Permits for the Fort Knox and Greens Creek Mines.

effectiveness of environmental management programs. Such a policy can and should be widely implemented.

(3) Communities should have the right to independent monitoring and oversight of the environmental performance of a mine.

Some NGOs propose independent monitoring that would include access to mine sites to take samples and process them independently of the company or its monitoring staff. In addition, these groups also seek independent funding for these tasks. In some cases agreements between a mining company and an NGO have provided many of these elements.[103] The MMSD report proposed "community-based environmental monitoring," but without specifying what such a monitoring program would entail.[104]

The best approach to this issue might be a written commitment on behalf of the industry to support community-based environmental monitoring, with the details of the agreement to be left to the individual community and company involved. In addition, in the case of indigenous communities, agreements should provide for joint monitoring and evaluation making full use of indigenous knowledge (see Section II.C in Chapter 3).

[103] For example, the Good Neighbor Agreement between Stillwater Mining Company and Northern Plains Resource Councils, Montana, May 2000 (see www.nprcmt.org/pdf/Good_Neighbor_Agreement.pdf).
[104] MMSD (2002: 300–01).

CHAPTER 3: ENSURING THAT MINE DEVELOPMENT RESULTS IN BENEFITS TO WORKERS AND AFFECTED COMMUNITIES

I. Introduction

Communities of Interest

Mining usually affects human populations even when an ore body is located in a remote area. Impacts from mining are experienced directly by inhabitants located on, or adjacent to, the ore body, as well as by communities in the environmental, social, and economic impact zone downstream of the mine.[105] Since the mid-1990s, the social, cultural, and economic issues faced by mining-affected communities have gained increasing recognition and have "moved to the top of the agenda of challenges facing the mining industry."[106]

Certain populations or "communities of interest" require special consideration by mining companies, governments, and investors. These include indigenous peoples, artisanal miners, mine workers, and people within communities who are marginalized on the basis of ethnicity, race, caste, class, sexual orientation or religion. Indigenous peoples[107] are increasingly affected, as mining is expanding in developing countries and in ever more remote regions of the world.[108] In general, mining has a disproportionately negative impact on women. Thus, women in each of these affected "communities of interest" require particular attention when considering the impact mining may have on a community.[109]

Indigenous peoples and members of local communities affected by mining are inherent "holders of rights," but also, frequently, "involuntary bearers of risks."[110] Beyond those directly affected by a specific mine, wider circles of interested communities have been recognized and accorded various types of input, from veto right (governments) to the right to be consulted and to participate (national and even international civil society groups), to the right to be informed (media, shareholders). Models vary in how these wider stakeholder circles are drawn, who is included, and what type of input they are accorded with regard to mine development.[111] In this chapter we discuss indigenous peoples and non-indigenous affected communities (including those in the wider footprint of the mine), mine workers, artisanal miners, and women.

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[105] These so-called downstream communities may be located quite far away from the mine but may nevertheless be directly affected and need to be taken into account in all aspects of mine planning. MMSD (2002: 200); Young and Septoff (2002).
[106] McMahon and Strongman (1999).
[107] Indigenous peoples are those who self-identify as indigenous in the Americas, Africa, and Asia and the Pacific.
[108] It is predicted that about 50 percent of gold mined between 1995 and 2015 will come from indigenous lands and territories (Earthworks and Oxfam America 2004: 22).
[109] See particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm). MMSD (2002: 205); World Bank (2003: 44).
[110] The "rights and risks" framework proposed by the WCD is useful in evaluating evolving standards in mining. WCD (2000: 206).
[111] For an example, see MMSD (2002: 58).

Addressing Social Risks and Benefits

Civil society groups, the investment community, trade unions, some governments, and some mining companies have identified a wide range of potential social risks faced by indigenous peoples and local communities and have developed norms and criteria for responsible mining.[112] However, these codes of conduct are voluntary, and negative social impacts remain pervasive. Potential negative social impacts from mining include the following:

- Increased poverty—e.g., through a degraded environment on which, in many cases, community subsistence depends[113] and an overall increased cost of living due to higher wages earned by a small segment of the population;
- Increased internal economic inequality—e.g., between men and women, between those with jobs at the mine and those without, between those who receive royalty payments and other benefits and resource rents and those who do not;
- Destabilized internal power relations, internal conflict, disruption of traditional social structures, and increased gender inequality as a result of unequal access to jobs in the mine by men, the loss of male support for household work, and degraded environments that cause women to expend more energy accessing safe water and food for the family;[114]
- Economic dependency as local economic activity is reorganized to meet the needs of the mine, leaving the community vulnerable to a typical "boom and bust" economy when the mine closes down;[115]
- Militarization—e.g., as a result of the need to protect the mine's assets from local opposition, from scavenging by poor communities, or from existing local conflicts that may be exacerbated by "revolutionary taxes" from the mines;
- Displacement, forcible eviction, or forced relocation leading to impoverishment and loss of cultural and social cohesion;
- Problems related to accelerated in-migration of outsiders—e.g., conflicts due to different sociocultural values between newcomers and native residents, overuse of local resources, and imported diseases;
- Problems related to increased accessibility of previously remote or "traditional" communities—exposure to new health risks (e.g., influenza, malaria, HIV/AIDS) and unhealthy dietary changes (e.g., through consumption of imported processed foods);
- Increases in alcohol and drug use, prostitution, gambling, and internal law and order problems as a result of an influx of mainly men who are not integrated into the local community nor subject to its social constraint mechanisms, or the unusually rapid accumulation of wealth by local men;

[112] The focus in this chapter is on local social impacts from mining. There is also a large body of research that documents and analyzes the negative impacts of mining on regional and even national economies; a phenomenon known as the "resource curse." For examples of this literature see De Echave (2001); Stahl (2001); Power (1996); Randall and Ironside (1996); Tester (1991); Matthews (1983); Sampat (2003); Ross (2001); Slack (2004).
[113] World Bank (2003: 20); MMSD (2002: 202).
[114] See particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[115] Akabzaa (2000); Kuyek and Coumans (2003).

- Human rights abuses—e.g., as a result of militarization, increased sexual violence, and forced relocation;
- Loss of land, loss of sustainable livelihoods, and loss of livelihood from small-scale mining as a result of displacement of communities by mining;
- Loss of cultural cohesion and loss of sacred places—e.g., as a result of displacement and the destruction of sacred sites;
- Loss of development choices and options, loss of power over community decision making, loss of control over the future of the community and its assets, with further economic and social dislocation at mine closure;[116] and
- Breaches of core labor standards through the use of forced labor, child labor, denying workers the right to unionize and to collective bargaining, and breaches in health and safety standards, and so on.

While these potential impacts are well documented, the specific risks a community may be subject to are dictated by its particular environmental, political, sociocultural, and legislative context, as well as by its relationship with a particular mining company.

Governments, civil society groups, and some investors and mining companies increasingly recognize that mining should not leave affected communities worse off than they were before mining started. This means, firstly, that potentially negative social and economic impacts, such as those outlined above, should be identified at the project level, acknowledged, and addressed.[117]

Governments and some companies also recognize that the depletion of a nonrenewable resource through mining should provide direct benefits to locally affected communities. Local communities and indigenous peoples, artisanal miners, women, and traditionally marginalized groups should share directly in the wealth that is generated in ways that are sustainable and negotiated and agreed upon by the affected groups themselves.[118] In cases where mining requires relocation of communities, the emerging standard is that those affected should be consulted, they should agree to the relocation, and they should be better off in their new circumstances than they were before relocation.[119] International law recognizes the right of indigenous peoples to give their free, prior, and informed consent to relocation; ideally this consent would be given subsequent to agreement on benefits and a right of return once the reasons for relocation cease to exist.

Where mining occurs, the benefits to communities should outweigh the costs. However, social and economic benefits are not an automatic consequence of mining.[120] Sustainable and long-term benefits to indigenous peoples and community women and men must be deliberately considered

[116] World Bank (2003: 32–36; 38–42); ELI (2004: 2); MPC (2001); MMSD (2002: 202–08)**;** WWF (2001: 4); Kuyek and Coumans (2003); Sosa (2000); Oxfam Community Aid Abroad (2002: 26).
[117] In some cases, the social impacts cannot be addressed to the satisfaction of local communities. When this occurs, the community will have to determine whether a mine should proceed. More on this follows in this chapter.
[118] Green (1998: 14); MMSD (2002: 26, 148–52, 185, 199); ICMM (2003: Principle 9).
[119] World Bank (2003: 58); Oxfam Community Aid Abroad (2004: 26); MMSD (2002: 160); WCD (2000: XXXV).
[120] For a discussion of the issue of deriving benefits from resource rents from mining for communities and countries see also MMSD (2002: 209–12).

and pursued by mining companies in consultation with members of local communities.[121] The sections that follow in this chapter provide further information on the ways in which mining companies can provide direct benefits to local community members. Examples include:

- Impact and Benefit Agreements with indigenous peoples;
- Employment for women and minorities in communities;
- Providing title to land that can be profitably mined and appropriate technologies for small scale miners;
- Ensuring that resource rents are provided to communities to develop sustainable economic projects that will diversify the local economy and provide work after the mine closes down; and
- Paying full taxes and royalties, rather than seeking relief from taxes or other exemptions from payments.[122]

As social risks are ultimately borne by specific communities and by workers, the implementation of mining practices, rooted in human rights and core labor standards, must occur with the full participation of indigenous peoples, local communities, and workers. Mining companies must engage indigenous peoples and community women and men in consultative, participatory, culturally appropriate, and mutually acceptable processes before applying for mine permits and at all subsequent stages of mining. In order for this dialogue to be meaningful, companies should disclose critical information regarding financial, environmental, and social risk in a form that is understandable to those affected. Before applying for mining permits, companies should facilitate independent social, human rights, and gender impact assessments; provide baseline and ongoing health studies; and, should a mine proceed, ensure meaningful community participation in independent audits and verification of compliance with regulations and commitments.[123] Companies should not proceed if baseline studies suggest that their activities may violate human rights standards or core labor standards,[124] even if human rights are not upheld by national laws or practice.[125]

Human Rights and National and International Law[126]

Countries have an obligation to enforce international law, which reflects detailed rules for the protection of human rights that have been developed over the last half-century.[127] Companies must comply with the laws and regulations in the countries in which they operate.

[121] Mining consultant Richard Jackson notes that "sustainability in mining is largely about managing wisely the financial resources it generates." Jackson lists the challenges to sustaining mining's benefits including the industry's low level of predictability in cash-benefit flows (Jackson 2005: 6).
[122] Chapter 4 discusses the payment of taxes, another way wealth generated from mining can benefit local communities and the country as a whole.
[123] ICMM (2003: Principle 4); MMSD (2002: 142–43, 293–311); Young and Septoff (2002).
[124] ICMM (2003: Principle 3); MMSD (2002: 126;189–90); ILO Convention 29 (1930) Forced Labour Article 5; ILO's 1998 Declaration on Fundamental Principles and Rights at Work.
[125] Oxfam Community Aid Abroad (2004).
[126] A number of useful resources explore international and national legislation in the context of holding companies to account for human rights abuses: International Council on Human Rights (2002); Oldenziel (2005); Deva (2004); Abrahams (2004); International Peace Academy (2004); SustainAbility et al.(2004); Seck (1999).
[127] International Council on Human Rights (2002: 2). In particular, states have an obligation to regulate the behavior of non-state actors with respect to human rights treaties that are binding on states that ratify them (Ibid.: 47).

Although States are required to implement treaties they ratify, international bodies often have little power to enforce compliance. For example, the International Labor Organization (ILO has drafted 183 treaties to address laborers' rights. Governments ratify ILO conventions and are therefore legally bound too implement them. However, while breaches of ILO conventions can be brought before the ILO Committee of Experts, any resulting "sanctions" are primarily limited to diplomatic pressure and publicity.[128]

Questions are being raised with increasing urgency regarding whether international human rights law legally binds private actors, such as companies, and whether international law can be used to hold companies *legally* responsible for human rights abuses.[129] Legal experts generally agree that international human rights law places *indirect* obligations for compliance on companies through the obligations of states to implement these international rules, rather than holding them *directly* accountable.[130]

However, enforcement of these instruments by international bodies is still weak. The United Nations Commission on Human Rights can investigate and condemn human rights violations, including those involving private companies, but it can only enforce its findings through reports that may embarrass governments.[131] A wide range of human rights treaties are legally binding on states that ratify them, but only six human rights treaties in the United Nations are upheld by monitoring bodies or "control committees."[132] Individuals may file complaints regarding human rights abuses in their countries to all but two of the committees, but these can only be filed once all remedies within their country have been exhausted.[133]

Corporations are increasingly under pressure to follow international human rights standards as a result of three emerging developments in international legal frameworks: (1) the evolution of an extensive framework of international human rights instruments into customary law that may eventually become binding on corporations, (2) UN efforts to develop instruments that specifically address the human rights obligations of corporations, and (3) efforts underway by states to develop extraterritorial legislation to hold their corporations to account for human rights and environmental activities abroad.

Long-standing declarations, such as the preamble and article 30 of the Universal Declaration of Human Rights, and newer international instruments, such as the OECD Guidelines and the ILO

[128] Ibid.: 89–90.
[129] Ibid.: 2.
[130] Ibid.: 76; Gagnon et al. (2003: 53). The authors note the disparity between the *rights* afforded corporations through international trade agreements such as WTO, NAFTA, and OECD in the absence of binding international *obligations* on corporations to abide by human rights.
[131] International Council on Human Rights (2002: 85–86).
[132] International Covenant on Civil and Political Rights, 1991; International Covenant on Economic, Social and Cultural Rights, 1948; International Convention on the Elimination of All Forms of Racial Discrimination, 1969; Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, 1984; Convention on the Elimination of All Forms of Discrimination Against Women, 2000; Convention on the Rights of the Child, 1989; listed in Rights and Democracy (2004: 2).
[133] International Council on Human Rights (2002: 83–85). While the Committee on Economic, Social and Cultural Rights explicitly interprets the rights it oversees as applying to private companies, this committee does not receive complaints from individuals.

Tripartite Declaration,[134] constitute a body of "soft law," which applies standards explicitly to companies. While these instruments are not yet strictly binding, they are not without authority and practical impact.[135] Many believe that "the language of ethical duty is shifting by degrees towards a language of legal obligation" and that "[l]ooking further into the future, one can see a conscious and gradual evolution of international law towards clear, binding norms that are directly applicable to companies."[136] However, it is not yet clear whether aspects of these "soft law" instruments have already "crystallized" into binding customary international law with respect to corporations.[137]

Recent work of UN bodies reflects the growing belief in the United Nations that transnational corporations should comply with a common minimum standard of practice across national boundaries, particularly with respect to human rights norms. This is especially evident in the work of the Sub-Commission on the Promotion and Protection of Human Rights, which in 2003 drafted the UN Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights.[138] The work of the Sub-Commission indicates that the UN recognizes that corporations should be held in direct compliance with international human rights law.

Finally, corporations can be held accountable through regional legal frameworks. Regional intergovernmental bodies in Europe, Africa, and the Americas have established human rights treaties and international human rights commissions or courts with binding jurisdiction to which individuals can complain if they have exhausted efforts to attain a remedy in their own

[134] Only two international procedures were developed specifically with corporations in mind that have *direct*, if weak, enforcement implications for companies. These are the OECD Guidelines for Multinational Enterprises and the ILO Tripartite Declaration. While these two procedures can directly scrutinize corporate behavior, they are both limited as they rely on the voluntary cooperation of companies, they do not provide remedies, and individual companies are not judged. International Council on Human Rights (2002: 99–116).
[135] International Council on Human Rights (2002: 73).
[136] Ibid.: 74–75.
[137] Gagnon et al. (2003: 54). Customary rules of international law emerge when practice and intentions of states show they are acting as if they consider themselves bound by an unwritten rule (International Council on Human Rights 2002: 5).
[138] The Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights first introduced a Draft Human Rights Code of Conduct for Companies in 2000 based on internationally recognized human rights reflected in texts such as the OECD Guidelines for Multinational Enterprises, the Global Compact, the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, and the Global Sullivan Principles (E/CN.4/Sub.2/2000/WG.2/WP.1/Add.1, May 25, 2000).

In 2003, the Sub-Commission on the Promotion and Protection of Human Rights drafted the UN Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights. (See daccessdds.un.org/doc/UNDOC/GEN/G03/160/08/PDF/G0316008.pdf?OpenElement.) In April 2005, members of the Commission on Human Rights passed a resolution requesting the Secretary-General to appoint a special representative on the issue of human rights and transnational corporations and other business enterprises; this representative would be tasked with identifying and clarifying standards of corporate responsibility and accountability for transnational corporations with regard to human rights. Unfortunately, this resolution does not reference the UN Norms. Preceding this vote, the United Nations High Commissioner for Human Rights prepared a report (E/CN.4/2005?91) that includes an appendix listing and reviewing the legal status of 23 initiatives and standards regarding corporate behavior. Of these, only the U.S. Alien Tort Claims Act is legally binding on companies.

countries.[139] It is also clear that "international law is now evolving to regulate companies, both directly and indirectly through states" as states are developing international law to grant rights and obligations to non-state actors.[140] However, while individual states are obliged to respond to corporate activities that violate human rights within their territory, not all states have demonstrated sufficient political will to fully implement human rights treaties, let alone enforce them. States are not currently required to control directly the activities of their corporate nationals outside of their territorial jurisdictions.[141] Nonetheless, a growing trend toward implementing extra-territorial legislation would allow governments to regulate the behavior of their corporations overseas.[142] In Belgium a proposed law would legally bind Belgian corporations to specific standards of sustainability and responsible behavior if they receive any form of financial support for their activities from the Belgian Export Credit Agency.[143]

Human Rights and Social Standards for Mining

While not yet directly bound by international law or extra-territorial provisions, at least some mining companies[144] understand that compliance with existing national legislation may be

[139] International Council on Human Rights (2002: 87).

[140] International Council on Human Rights (2002: 73). The establishment of the International Criminal Court will create an opportunity to prosecute individuals for international crimes against humanity such as genocide or war crimes, but only if individual governments cannot or are unwilling to do so (International Council on Human Rights 2002: 45).

[141] Gagnon et al. (2003: 57). An important exception to this situation is the United States Alien Tort Claims Act. This is a piece of national legislation that has international coverage and allows U.S. District Courts to take jurisdiction in matters involving injuries connected with the violation of the law of nations or a treaty to which the United States is a party (E/CN.4/2005/91). Another relevant example is that of the United Kingdom, where tort litigation was used against RTZ (formerly a Rio Tinto subsidiary) by a cancer victim who had worked in RTZ's uranium mine. Two other cases, against Thor Chemical and against Cape Asbestos, are also setting precedents in the United Kingdom. In Australia a lawsuit against the activities of BHP mining company in Papua New Guinea led to an out-of-court settlement. (International Council on Human Rights 2002: 105.)

[142] Legislatures in the United States, United Kingdom, and Australia are considering draft legislation that would require accountability for some aspects of overseas corporate activity (Gagnon et al. 2003: 58–61). Note that the Australian-proposed legislation is not progressing under the current government but progressives in Australia expect to push the legislation forward again under more favorable political conditions at some point in the future. In Canada, a recent parliamentary standing committee report submitted to the Government of Canada considered the activities of Canadian mining companies operating outside of Canada and requested that the government make "Canadian government support… conditional on companies meeting clearly defined corporate social responsibility and human rights standards." For a copy of the June 2005 report, see www.parl.gc.ca/committee/CommitteePublication.aspx?SourceId=122765.

[143] The Belgian Bill obliges companies to meet standards set out in the following sources: (1) the OECD Guidelines for Multinational Enterprises; (2) the five ILO core labor standards (ILO 29 and 105 on forced labor; ILO 87 on Freedom of Association; ILO 98 on collective bargaining; ILO 100 and 111 elimination of discrimination in respect of employment, occupation and wage; and ILO 138 and 182 on the abolition of child labor), all of which have been ratified by the Belgian government; (3) the UN Norms on the responsibilities of transnational corporations and other business enterprises with regard to human rights; 4) the OECD Convention Against Bribery of Foreign Public Officials in International Business Transactions, which Belgium ratified in 1999; (5) the World Bank's environmental and social operational policies, included in its Pollution Prevention and Abatement Handbook. See Belgische Kamer van Volksvertegenwoordigers—Wetvoorstel. Doc 51 0648/001, Proposition de Loi, Chambre des représentants Belgique, January, 6, 2004. Available online at www.dekamer.be/FLWB/pdf/51/0648/51K0648001.pdf.

[144] MMSD (2002: 339–40); Rio Tinto (2003a); Anglo American (2002a); International Council on Human Rights (2002: 70).

insufficient to guard against damage to brand and corporate reputation.[145] These companies' publications indicate, to varying degrees, that they recognize the authority of international conventions and treaties, as well as codes, protocols, covenants, declarations, instruments, and custom that protect basic human rights and labor. Some of these international standards are reflected in codes and guidelines that are relevant to mining companies:

- The Global Compact;
- The International Sullivan Principles;
- The U.S./U.K. Voluntary Principles on Security and Human Rights;
- The Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises;
- The ILO Tripartite Declaration;
- The UN Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights;
- The OECD Convention Against Bribery of Foreign Public Officials in International Business Transactions;
- The Publish What You Pay guidelines; and
- The World Bank's environmental and social operational policies and its Pollution Prevention and Abatement Handbook.

As these codes are not legally binding, the degree to which indigenous peoples and local communities are protected from the social risks they face from mining is still largely influenced by the standards individual companies and project managers are willing to adopt—or can be persuaded to adopt—through an "effective international framework or safeguards applied by lenders and investors, consumers, or the public spotlight."[146]

At the same time, mining companies are increasingly faced with the need to obtain a "social license to operate," or demonstrable public acceptance, in the case of non-indigenous communities, and "free, prior and informed consent" in the case of indigenous communities.[147] These terms imply an inherent right of directly affected communities to determine whether or not they believe a mining project is in the interest of their community.[148] Mining companies are

[145] Unlike in other resource sectors, such as agriculture, fishing, and forestry, there are no specific international governance regimes or statements of principle for mining (MMSD 2002: 340).

[146] MMSD (2002: 124).

[147] Free, prior, and informed consent is an example of a "social license," but it is currently only supported in international law with respect to indigenous peoples. There is no direct legal justification for the proposition that non-indigenous "local communities" have an inherent right to FPIC. In the World Bank Extractive Industries Review process and in the World Commission on Dams process a careful distinction was made between indigenous peoples' right to FPIC, which is derived from international law, particularly the right to self-determination (a right of "peoples" not "communities"), and local community consent, which is based on a social license—i.e., demonstrable public acceptance of the project. The latter has no direct legal meaning or status, but much practical significance if properly employed. FPIC for indigenous peoples is obtained in accordance with customary law and through customary institutions, unless indigenous peoples indicate otherwise. By definition, non-indigenous local communities have no customary law or institutions but are theoretically given the opportunity to express their wishes through local government institutions.

[148] Discussions are under way regarding how community "consent" and free, prior, and informed consent, or lack thereof should be determined. Some argue that consent should be unanimous, particularly in communities that traditionally make important decisions by consensus. Others contend that a majority decision may determine whether a project will go ahead.

increasingly accepting these concepts as they realize that mining in the face of ongoing social conflict does not make good business sense.[149]

II. Leading Edge Issues

A. Indigenous Peoples and Free, Prior, and Informed Consent

Indigenous peoples are recognized by international law and institutions as distinct, self-determining peoples with inherent collective rights, in addition to the individual rights of their members. As such they have the right to, among others, govern themselves; freely pursue their economic, social, and cultural development; freely dispose of their natural wealth and resources; and be secure in their means of subsistence. This status also requires that relationships with outsiders be consent-based. Special importance and protection is granted because of indigenous people's unique relationships to their traditional lands and territories, including the right to own and control their lands, territories, and resources.[150] This traditional relationship to territory and resources defines core aspects of indigenous life: culture, spirituality, history, social organization, food security, economy, and health.[151] Indigenous societies have distinct systems for decision making, including unique social and political institutions, and systems of wealth generation and distribution.[152] The United Nations Working Group on Indigenous Populations recognizes this unique status.[153] The very definition of who may be considered "indigenous" is linked, in part, to this prior and continuous habitation of the land on which people live.[154]

Increasing Encroachment by Resource Extraction on Indigenous Land

Technological and communications advances have allowed mining companies to enter previously inaccessible and inhospitable areas, such as tropical mountaintops, deserts, and the arctic. At the same time, the drive to locate and lay claim to untapped mineral wealth is driving exploration and mining companies into these isolated parts of the world that have traditionally provided sanctuary for the Earth's remaining indigenous peoples. Projections now estimate that half of the gold mined between 1995 and 2015 is likely to come from native lands.[155]

The threat that such encroachment poses to the identity and rights of indigenous peoples is well articulated by indigenous peoples themselves:

> *Our futures as indigenous peoples are threatened in many ways by developments in the extractive industries. Our ancestral lands—the tundra, drylands, small islands, forests and mountains—which are also important and critical ecosystems*

[149] MMSD (2002: 25, 142); Anglo American (2002b: 38); Rio Tinto (2003b: 10).
[150] ILO Convention 169 (1989) Articles 13–19; UN Convention on Biological Diversity (1992) Article 10c.
[151] In most countries indigenous peoples are also the poorest and most marginalized peoples.
[152] MMSD (2002: 200).
[153] United Nations Document E/CN.4/Sub.2/1986/7.
[154] United Nations Document E/CN.4.Sub.2/1996/22.
[155] Earthworks and Oxfam America (2004: 22).

> *have been invaded by oil, gas, and mining developments which are undermining our very survival.*[156]

The threat that resource extraction poses to indigenous rights and existence is explicitly recognized by international organizations.[157] In 2002 the UN Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people noted:

> *…resources are being extracted and/or developed by other interests (oil, mining. logging, fisheries, etc.) with little or no benefits for the indigenous communities that occupy the land. Whereas the World Bank has developed operational directives concerning its own activities in relation to these issues … and some national legislation specifically protects the interests of indigenous communities in this respect, in numerous instances the rights and needs of indigenous peoples are disregarded, making this one of the major human rights problems faced by them in recent decades.*[158]

Indigenous Rights with Respect to Land and Natural Resources

International human rights law defines state obligations with regard to indigenous peoples and resource extraction on their lands. International instruments also explicitly limit states' rights to pursue development at the expense of indigenous peoples' rights.[159] Legal precedents indicate that states and private corporations are obliged to respect internationally recognized indigenous rights.[160] Intergovernmental organizations, such as the World Bank, are also subject to international law with respect to human rights, as explicitly set out by the International Court of Justice in the WHO Agreement Case.[161] (For a detailed discussion on the content of international instruments that support indigenous rights, see Appendix A.2).

[156] Indigenous People's Declaration on Extractive Industries, April 15, 2003, Oxford, United Kingdom.

[157] The World Bank's first policy on indigenous peoples—Operational Manual Statement 2.34, "Tribal People in Bank-Financed Projects"—was developed in response to condemnation of the Bank's financing of projects in the Amazon with disastrous results for local indigenous groups (Tebtebba and Forest Peoples Programme 2003: 26).

[158] Stavenhagen (2002: para. 56).

[159] Examples include the UN Human Rights Committee (CCPR/C/52/D/511/1992,10); the Inter-American Commission on Human Rights (OEA/Ser.L/V/II.96, Doc. 10 rev. 1 1997,89.); the African Commission on Human and Peoples' Rights (Communication No. 155/96, The Social and Economic Rights Action Center and the Center for Economic and Social Rights/Nigeria, at para.58 and 69.); the 1993 Vienna World Conference on Human Rights (Vienna Declaration and Programme of Action, adopted by the World Conference on Human Rights on June 25, 1993, Part I, at para.10 UN DOC.A/CONF.157/23, July 12, 1993); UN Committee on Elimination of Racial Discrimination, General Recommendation XXIII (51) concerning Indigenous Peoples, adopted at the Committee's 1235th meeting, August 18, 1997 (UN Doc. CERD/C/51/Misc.13/Rev.4); and UN Committee on Economic, Social and Cultural Rights, General Comment No. 7, The Right to Adequate Housing (Art. 11(1) of the Covenant): Forced Evictions (1997). The list can be found in the Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies (UN Doc. HRI/GEN/1/Rev.5, 26 April 2001, pp. 49–54, at para. 18) in Tebtebba and Forest Peoples Programme (2003: 27).

[160] Among others, see UNEP (1992); United Nations Doc. A/Conf. 166/9 (1995); G.A. Res. 42/115, 11 February 1988.

[161] ICJ (1980: 89–90).

International environmental treaties, such as the CBD, explicitly recognize indigenous peoples' rights to land and a healthy environment. In 2004, the Conference of Parties to the CBD adopted detailed guidelines for conducting social and environmental impact assessments concerning activities that impact indigenous peoples' territories and waters.[162] These guidelines were adopted by the consensus of the 175 governments that are party to the Convention and enjoy widespread support among indigenous peoples. As such, they constitute a widely supported viewpoint on best practice regarding social and environmental impact assessments.

The recognition and special international consideration accorded to the world's indigenous peoples is in part expressed through the requirement that their free, prior, and informed consent (FPIC) be obtained as a condition for development and resource extraction on their land.[163]

Free, Prior, and Informed Consent

FPIC can be broken down into the following required elements:

- ***consent*** that is obtained ***free*** of coercion or manipulation;
- securing such consent ***prior*** to any authorization by the government or third parties, and prior to commencement of activities by a company affecting indigenous peoples' lands, territories, and resources; and
- consent that is ***informed*** by meaningful participation and consultation of indigenous peoples based on the full disclosure of relevant aspects of the proposed project by the company and permit granting authority in a form that is understandable and accessible to indigenous peoples and local communities.

In the context of mining, FPIC entails full and informed participation by indigenous peoples and their communities if proposed mining activities—including prospecting and exploration—affect indigenous territories and rights. The concept also extends to defining the terms and conditions of mining projects prior to a company receiving permits for prospecting or exploration, and at each new stage of mining, based on full disclosure of social and environmental risk on the part of the company and a full understanding of their rights by indigenous peoples and communities. If the project is consented to, terms and conditions are set out in a binding agreement.[164]

The concept of FPIC captures and provides a context for all other social considerations in the relationship between a mining company and indigenous peoples and their communities. FPIC is premised on the understanding that indigenous people have the right to determine their own

[162] Akwé: Kon "Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place on, or Which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities." In Decisions Adopted by the Conference of Parties to the Convention on Biological Diversity at its Seventh Meeting (UNEP/BDP/COP/7/21).
[163] The requirement for FPIC with respect to indigenous peoples is supported by the World Commission on Dams (WCD 2000), the World Bank Extractive Industries Review (World Bank 2003), the Forest Stewardship Council, UNDP, the Convention on Biological Diversity (1992), IUCN, and WWF.
[164] Most of these components of FPIC are supported and elaborated in a wide range of texts—such as Goodland (2004); MacKay (2004); Tebtebba and Forest Peoples Programme (2003: 42); United Nations (E/CN.4/sub.2/AC.4/2004/4); MMSD (2002); WCD (2000); World Bank (2003)—as well as by organizations such as UNDP, IUCN, and WWF.

development path. FPIC is required in relation to resettlement or relocation and as a result, involuntary relocation of indigenous peoples is prohibited by international law.[165] The Philippine Mining Act (of 1995) and Philippine Indigenous Peoples' Rights Act (IPRA 1997) also support FPIC for indigenous peoples[166] as do the legal frameworks in the United States, New Zealand, and Guyana.

Perhaps the clearest example of FPIC is Australia's 1976 Aboriginal Land Rights Act of the Northern Territory. Through this legislation, Australia recognizes the right of aboriginal landowners to reject exploration and mining on their land and to set the terms and conditions under which a project can proceed, except in cases where the project is deemed to be of "national interest."[167]

Nonetheless, operational details with regard to the implementation of FPIC remain under discussion. For example, should FPIC also extend to non-indigenous communities whose right to consent may be considered part of the mandate of locally elected officials and whose identity is not considered to be as closely linked to a particular territory?[168] How should consent be obtained—by simple majority (e.g., a democratic vote or referendum) or by unanimous consensus?[169] What is a local community? Which community members have the right to consultation? Who has the right to give consent? Once given, can FPIC be revoked or reviewed under evolving circumstances? Does FPIC interfere with national interests?[170] Finally, some argue that a local community should not have the right to decide on a project for reasons of local advantage, when that project may have serious and widespread consequences for populations living well outside the local area. These questions are currently being addressed in a number of research projects that will include case studies of FPIC from a number of countries,[171] as well by the United Nations Permanent Forum on Indigenous Issues, which held a seminar in January 2005 on methodological issues related to indigenous peoples' right to FPIC. The seminar incorporated the UN Working Group on Indigenous Populations' legal commentary on FPIC for indigenous peoples as the basis for discussing methodological and operational issues related to FPIC.

[165] Among others, ILO 169 (1989), Article 16. The article states that if consent is not given for relocation, in exceptional cases relocation can take place pursuant to national legal procedures. In its operational policy, the Inter-American Development Bank also requires the informed consent of indigenous and tribal peoples to resettlement and compensation measures.
[166] Tauli-Corpuz and Alcantera (2002).
[167] Sosa (2000).
[168] Some civil society members argue that it should—indigenous peoples and some civil society organizations strongly argue that it undermines rights that are specific to indigenous peoples and that the same result can be achieved by other means. See Goodland (2004); Slack (2004). MMSD (2002) comes out in favor of FPIC for both indigenous and non-indigenous communities.
[169] In the case of indigenous communities decisions are made in accordance with customary law and customary institutions or through hybrid institutions such as band councils, tribal governments, land councils, Saami parliaments, and village councils in Guyana. Indigenous peoples have stated that FPIC does not mean that individuals or internal groups can block consent, unless this is provided by customary law.
[170] This question is commonly answered with "no" by indigenous rights experts as FPIC is a human right and therefore not barred by sovereignty concerns.
[171] Pers. comm. with Viviane Weitzner (The North-South Institute), Joji Carino and Victoria Tauli-Corpuz (Tebtebba Foundation), and Fergus MacKay (Forest Peoples Programme).

Ultimately, many of the key social issues and concerns identified in this framework must be resolved between the company and the community members who bear the immediate risks of a mining project (including indigenous and non-indigenous peoples, women, small-scale miners, and people marginalized on the basis of ethnicity, caste, class, or religion within communities). Investors, lenders, governments, and civil society generally recognize that the risks faced by various communities of interest are substantial and must be addressed if a mine is to proceed with a social license, thus avoiding potentially costly social unrest[172] or, in some cases, protracted litigation at the domestic and international levels. However, although investors and lenders can minimize their own exposure to risks from a specific project by requiring a high level of disclosure from a company and by providing input on mine design issues, indigenous peoples and local communities are usually not provided with the same level of detail. Therefore, an increasing number of communities are demonstrating that the most effective way to control their social and environmental risk exposure from a mine is by opposing the mine's operations.[173] In this context, it is up to the company to demonstrate that it will respond to community concerns, that it can address the risks communities and their technical advisors identify, and that the benefits from the mine will outweigh the risks to affected communities.

The Norm

Many mining companies recognize the value of engaging with communities potentially affected by their operations and understand the need to provide them with benefits. However, few companies recognize indigenous peoples' right to FPIC. Although major companies generally recognize the need to obtain a "social license to operate," what constitutes such a license is largely up to interpretation and there are no standards to indicate when a social license has been obtained. Many mining companies focus their energies on achieving consent from government regulators, and on meeting conditions to attain mining permits. Unless required by domestic law, addressing community concerns remains a secondary consideration for most companies, until community dissatisfaction threatens to disrupt the project. This is because mining companies frequently consider issues of community consent to be the primary responsibility of the government that issued the permit. Even though that indeed is the case, companies often find that they are not relieved of the obligation to obtain consent and social license once the nature of the project and its impacts become clearer through the assessment process, as ore bodies and technical specifications are defined, and generally in the various stages of the project.

[172] Following major protests at Newmont's Cerro Quilish mine in 2004, the company's stock price fell by 7 percent, representing over $1 billion in shareholder value that was lost, although it has subsequently recovered. The main concern of the protesters was that they had not been consulted and had not given their approval for the mine to proceed (pers. comm. with Keith Slack).

[173] In New Caledonia, indigenous Kanak chiefs blockaded Inco's Goro project on February 1, 2005 after years of trying to persuade Inco to negotiate with them on terms acceptable to the local Kanak population regarding environmental, social, and economic aspects of the proposed project. Another example is the 40-day blockade by indigenous people in Guatemala from December 2004 to January 2005 to stop mine equipment destined for Glamis Gold's Marlin project on indigenous land. Lack of consultation and FPIC were given as reasons for the protestors' opposition. (See www.miningwatch.ca for more information.) Other examples include Tambogrande, Esquel, Marinduque, Mindoro, TVI, Udon Thani, and Kashipur.

The International Council of Metals and Mining's (ICMM) "Sustainability Principles" do not address FPIC at all. In fact, in response to a recommendation supporting FPIC in the final report of the World Bank's Extractive Industries Review (EIR), ICMM argued that FPIC is not sufficiently defined and that it is the proper role of "governments to define how mining decisions are to be made in the best interests of the nation and of Indigenous Peoples…."[174] The mining associations of the United States, Canada and Australia have also not expressed support for FPIC.

Leading Edge Issues

(1) Companies should obtain the free, prior, and informed consent of indigenous peoples before exploration begins and prior to each subsequent phase of mining and post-mining operations.

Indigenous peoples' organizations strongly support FPIC. Most recently, 47 indigenous organizations from around the world signed a letter to the board of directors of the World Bank Group to protest, among other things, Bank management's failure to support FPIC as recommended in the final report of the EIR.[175] NGOs also overwhelmingly support FPIC for indigenous communities at risk from mining.[176]

The importance of obtaining FPIC has gained increasing recognition through international conventions, protocols, multistakeholder processes, and guidelines (see Appendix A.3 for a list of relevant international legal instruments).[177] In addition, the OECD Guidelines for Multinational Enterprises refer to a company's responsibility to uphold a host government's international obligations and commitments, opening the door for support of FPIC in countries that are signatories to the relevant human rights conventions.[178]

FPIC is increasingly considered by a range of stakeholders concerned with mining issues. A "dialogue" between IUCN and ICMM included a proposal to examine FPIC issues in the context of global biodiversity conservation and IUCN explicitly urged ICMM to address FPIC issues. The WWF Mining Certification Evaluation Project, in which mining companies participate, accepted the principle of FPIC.[179]

[174] Comments from ICMM, December 17, 2003.
[175] Letter to the Board of Directors, World Bank Group, July 19, 2004.
[176] Friends of the Earth International; Earthworks; Mineral Policy Center; Oxfam; JATAM (Jaringan Advokasi Tambang); TWN (The Third World Network); PiPLinks (Philippine Indigenous Peoples Links); Samatha; Mines, Minerals and People; The North-South Institute; Tebtebba; Cooperacion; and others.
[177] Articles 10, 12, 20, 27, and 30 of the UN Draft Declaration on the Rights of Indigenous Peoples (1948); UN Report on the Workshop on Indigenous Peoples, Private Sector Natural Resource, Energy, Mining Companies and Human Rights (2002); Inter-American Commission of Human Rights, Report No. 75/02, at para. 131 (2002); Recommendation XXIII of the Committee on Elimination of Racial Discrimination (1990); Article 27 of the International Covenant of Civil and Political Rights (1966); Articles 6, 7, 15, and 16 of ILO Convention 169 (1989). See also the preliminary working paper on the principle of free, prior, and informed consent of indigenous peoples by the UN Economic and Social Council, Commission on Human Rights, Working Group on Indigenous Populations, E/CN.4/Sub.2/AC.4/2004/4.
[178] OECD (2000: 19).
[179] Solomon (2003b).

Support for FPIC is mixed among financial institutions. In response to the EIR, World Bank management addressed recommendations for implementing FPIC by supporting "Free Prior and Informed Consultation resulting in broad community support."[180] This standard was subsequently included in the Bank's draft Operational Policy on Indigenous Peoples (OP 4.10), which provides that "Free, prior and informed consultation with the affected Indigenous Peoples' communities" refers to "a culturally appropriate and collective decision-making process subsequent to meaningful and good faith consultation and informed participation regarding the preparation and implementation of the project. It does not constitute a veto right for individuals or groups [within the community or people]." OP 4.10 further states that the Bank "will provide project financing only where free, prior and informed consultation results in broad community support to the project by the affected Indigenous Peoples."[181] The same standard has also been included in the IFC's draft Performance Standard 7 on indigenous peoples and natural resource–dependent communities. Both OP 4.10 and the IFC's draft Performance Standards also require broad community support in relation to resettlement and no longer use the terminology "involuntary" resettlement in relation to indigenous peoples.

While the Asian and African Development Banks have yet to officially express support for FPIC, the Inter-American Development Bank requires the informed consent of indigenous and tribal peoples for projects affecting their territories[182] as well as in relation to resettlement and compensation measures.[183] CERES, a coalition of institutional investors representing more than $400 billion in assets—including many large public pension funds—supports the EIR recommendation on FPIC.[184] And the Japan Bank for International Cooperation notes that "[e]fforts must be made to obtain the consent of indigenous peoples after they have been fully informed."[185] Finally, the European Parliamentarians[186] and the United Nations Development Programme (UNDP) both support FPIC for indigenous peoples.

Notwithstanding government responses to the final report of the World Bank's EIR,[187] FPIC is recognized by several governments (see Appendix A.3).[188]

[180] Legal advice provided by the World Bank's General Counsel concluded that FPIC cannot be considered "customary international law" and that it interferes with national sovereignty and the Bank's "Articles of Agreement." "Legal Note on Free Prior and Informed Consultation," Senior Vice President and General Counsel, World Bank General Counsel, IFC, Vice President and General Counsel, MIGA.
[181] Draft World Bank Operational Policy 4.10 on Indigenous Peoples (Dec. 1, 2004), at paras. 1, 10, and 11.
[182] Inter-American Development Bank (1990): "In general the IDB will not support… projects affecting tribal lands, unless the tribal society is in agreement…."
[183] WCD (2000: 216).
[184] Letter from Executive Director of CERES to the President of the World Bank, March 9, 2004.
[185] JBIC (2002: 15).
[186] Sixty-two members of the European Parliament signed on to a letter dated April 2, 2004 to World Bank President James Wolfensohn stating that the World Bank Group should "[g]uarantee the right of indigenous peoples and project-affected communities to give their free prior and informed consent to World Bank–financed projects."
[187] The Dutch Government supported FPIC in its initial response to the EIR report and later responded to the Bank's management by stating, "It would therefore be a better understood signal if the approach of 'prior informed consultation' would be replaced by the recognition of a necessary process of 'consensus building,' in line with the 'broad support' by affected communities, including indigenous peoples that is already accepted as a prerequisite (Ad Melkert, Netherlands Executive Director, August 3, 2004).
[188] For example, the Australian Aboriginal Land Rights (Northern Territory Act) of 1976 and Chilean Indigenous Law of 1993 recognize the rights of indigenous peoples to FPIC. The Philippine Mining Act of 1995 and that country's Indigenous Peoples' Rights Act also recognize the rights of indigenous peoples to FPIC. Malaysia,

At least two mining companies have adopted the concept of FPIC in their corporate guidelines: Anglo American and Rio Tinto.[189] Anglo American claims to have walked away from a project in Canada in 2002 as a result of opposition from an indigenous community: "Wherever we operate, we seek to do so with the co-operation and informed consent of local communities. In 2002, the Anglo Exploration team wished to drill in the vicinity of Suggi Lake in Canada, a significant fish habitat, but has held off from doing so until it has addressed the concerns of the local indigenous community."[190] Rio Tinto also recognizes the right of non-indigeneous local communities to withhold consent: "In all cases, this involves ongoing consultation with local people, public authorities and others affected. We accept that this may sometimes result in our not exploring land or developing operations, even if legally permitted to do so."[191]

The negotiated agreement signed between five Quechua farming communities in Tintaya, Peru and BHP Billiton provides perhaps the most concrete recent example of a mining company recognizing the right to FPIC. The January 2005 agreement stipulates, among other things, that no additional mining activity will take place without the prior informed consent of the affected communities or individual property owners.[192]

B. Participation in Decision Making/Consultation

As part of the right to free, prior, and informed consent, indigenous peoples are also entitled to participate in decisions over development in their communities. This right is enshrined in national and international law and, in some cases, extends to broader civil society groups. The notion of participation implies two-way sharing of information between mining companies and indigenous peoples, communities, and other civil society groups in consultation processes. Governments[193] and international protocols encourage mining companies to engage communities

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Venezuela, and Peru have enacted national legislation on FPIC with respect to Indigenous Peoples for activities affecting their land and territories. At least one jurisdiction in Canada has endorsed the concept of consent through the Yukon Oil and Gas Act. Delgamuukw v. British Columbia (1977) saw the Supreme Court of Canada recognize that aboriginal title confers mineral rights: "Lamer CJ of the Canadian Supreme Court stated that 'aboriginal title also encompass [sic] mineral rights, and lands held pursuant to aboriginal title should be capable of exploitation in the same way….'" This could be interpreted as a basis for the need for companies to seek consent before exploiting minerals on land under aboriginal title. Delgamuukw also contains requirements for consultation. However, in the recent Haida decision, the Supreme Court has argued that consent is not needed. Possible triggers for seeking consent or levers for making the case for consent with government or industry could be legal (e.g., Treaty rights, court cases), regulatory (EA processes), non-legal (e.g., a spectrum of actions from civil action to negotiations), or all three. The Supreme Court of India has also upheld the rights of indigenous communities to determine the extent of exploitation of their lands.

[189] Anglo American (2002b: 38); Rio Tinto (2003a: 2).

[190] Anglo American (2002b: 38).

[191] Rio Tinto (2003a: 10).

[192] For more information see www.oxfamamerica.org/whatwedo/where_we_work/south_america/news_publications/tintaya/art6261.html. There have been recent social upheavals around the Tintaya mine; for more information see www.oxfamamerica.org/newsandpublications/news_updates/news_update.2005-06-10.3281933067. Importantly, Peruvian legislation supports the Tintaya agreement.

[193] Environmental Protection Agency, Australia (1995). McMahon (1998: 11–14) notes that Columbia has passed a law recognizing the right of indigenous communities to "prior consultation." The European Parliament supports the "promotion of a dialogue between extractive industries and local communities with regard to new projects, and

in participatory consultative processes, as well as to disclose critical information regarding financial, environmental, and social risk before mining and throughout the lifetime of the mine. Multistakeholder reviews[194] and NGO reports[195] urge companies to seek the widest possible level of community consent through consultation for all stages of operations facilitated by a range of environmental, social, human rights, and gender impact assessments; baseline and ongoing health studies; community participation in independent audits; and verification of compliance with regulations and commitments.

In the last 10 years, mining companies and financial institutions have recognized the importance of resolving critical social, cultural, and economic issues, moving such community concerns to the top of the agenda.[196] In response, workshops[197] and critical research[198] on the topic of community consultation—including work on concrete issues such as definitions, goals, legal frameworks, and implementation—have recently been conducted and are ongoing.

The Norm

In preparation for mining, companies normally direct the bulk of their energies toward meeting regulatory requirements of the jurisdiction in which they want to mine. They also invest considerable effort in addressing the risk concerns of lenders, investors, and insurance companies. A company will often adjust its plans in response to concerns expressed by these parties. But mining executives do not always recognize potentially affected community women and men as full participants in decisions regarding whether, when, and under what conditions mine development will proceed.[199]

The need to obtain a "social license" to operate leads some companies to seek some form of consultation with local communities with the goal of achieving community consent for their project. But most mining companies still treat this conversation as a one-way street, in which they inform the community about future operations and explain how the community will be protected from any negative impacts. Joyce and MacFarlane (2001:12) refer to this as the approach of "decide, announce and defend." The expectation is that the community, or at least some portion of it, will provide consent. Most companies do not enter consultations in a way that recognizes or respects the possibility that a community may withhold consent for the project or agree to provide consent only if certain changes are implemented.

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acknowledges the need for due compensation for infringement on their livelihoods and rights…" (EU, Joint Motion for a Resolution. RC\531124EN.doc).

[194] MMSD (2002); World Bank (2003).

[195] ICMM (2003: Principle 4); MMSD (2002: 142–143, 293–311); Young and Septoff (2002); Oxfam Community Aid Abroad (2004).

[196] McMahon and Strongman (1999).

[197] 1998 World Bank Workshop on Mining and Communities in Quito; 1999 Innu Nation and MiningWatch Canada Conference on Aboriginal Communities and Mining."

[198] Weitzner (2002); Innu Nation (1996); Sosa (2000).

[199] The Canadian Council for International Cooperation reports that in Latin America, "…local communities are rarely if ever consulted when plans are made, whether for exploration and development activities (as in Costa Rica, Ecuador, and Peru), actual implementation (as in Nicaragua and Peru), or changes and closures (as in Bolivia). Even when a company provides funds for community projects (as in Nicaragua), there is little consultation to determine their best use." CCIC (1999).

Leading Edge Issues

The following positions are receiving increasing support from a wide range of stakeholders.[200]

(1) Companies should negotiate with affected indigenous peoples and community men and women before exploration. Such negotiations should continue throughout the life of the mine, with the understanding that indigenous peoples or local communities may withhold consent at each stage of mine development.[201]

As rights-holders[202] and bearers of risk, indigenous peoples and community women and men should be invited to participate fully in decision making around a mine, to minimize their exposure to unacceptable risks. Inclusiveness should be the guiding principle for negotiations, with a view toward including marginalized groups within communities, as well those risk-bearing groups living downstream and adjacent to proposed mine sites.

(2) Companies should conduct consultations that are culturally appropriate, using mechanisms and institutions that are recognized by the affected indigenous peoples and community women and men in the area in which they wish to operate.

Culturally appropriate mechanisms are necessary to ensure the participation of marginalized groups within communities, such as women; the elderly; ethnic, religious, class, or caste groups; and the illiterate. Such approaches should include recognizing the community's own representative institutions and incorporating them in decision making in accordance with customary practice or other practices employed by the community. Where cultural mechanisms are implicated in the marginalization of members of society, such as women, additional tools should be applied to ensure the participation of these community members. Advice may be sought from members of the excluded group or organizations that support these marginalized people.[203]

The company should engage with the community in the community's native language. A special effort should also be made to ensure the participation of groups that are likely to be particularly affected by a mining project, such as already marginalized groups and artisanal miners.[204] To facilitate communication, independent mediation by a person acceptable to the community should be provided if the community so desires. Companies should allow sufficient time for community decision-making processes, which may be consensual. Negotiations should take

[200] WCD (2000); Weitzner (2002); Tebtebba and Forest Peoples Programme (2003); MMSD (2002);World Bank (2003); Young and Septoff (2002).
[201] While the legal basis for FPIC applies only to indigenous peoples, non-indigenous communities are increasingly demanding participation and consultation in decisions that affect them and some communities have held referenda to determine whether a project has "social acceptability."
[202] WCD (2000: 203–11); Weitzner (2002: 4); Tebtebba and Forest Peoples Programme (2003: 142).
[203] Oxfam Community Aid Abroad (2004).
[204] Artisanal miners may be long-standing members of a community or migrants from other areas. Migrant artisanal miners may be peacefully coexisting or in conflict with the original community. In either case, a mining company will have to recognize the interests of all parties that will be affected by its operations.

place on the affected peoples' own territories or in their communities and should be open and transparent to all members of the community.

Rosenfeld et al (2000) recommended that mining companies adopt such measures, and NGOs that work with local communities (e.g., The North-South Institute and Tebtebba) have also called on companies to institute these principles as a matter of corporate policy.[205] Reports prepared as a result of various multistakeholder processes have also made similar recommendations.[206] The International Council on Mining and Metals notes the need for consultation with "interested and affected parties" in point 4 of its Sustainability Principles, but does not provide details on how this consultation should occur.[207]

(3) Indigenous peoples and community women and men should be provided with sufficient resources to evaluate a project in order to decide whether, and how, they would like it to proceed.

All communities that are likely to bear the risks of a mining project should be provided with resources to hire independent experts who can independently assess the project on its level of environmental and social risk (see also Section B.3 in Chapter 2). Communities should also be given the opportunity to collect Indigenous Traditional Knowledge from local experts to feed into the environmental, social, and health baseline data gathered by outside experts.[208] In order to participate in ongoing discussions on an equal footing, community men and women should be provided with resources to hire independent legal and technical advice, which may include financial auditors, mining engineers, or experts to provide independent assessments of company reports as the mine progresses. Communities should be given the opportunity to receive advice from NGOs on the suitability of these experts. The community should be given the opportunity to receive ongoing independent monitoring and oversight of the companies' operations as the project progresses.

(4) Companies should not try to extract a community decision in support of mining (or encourage governments to do so for them) as this may divide communities and create dissent.

Mining companies are increasingly under pressure from governments, NGOs, and the investment community to show evidence that they are welcome in the communities where they want to mine. However, many mining companies do not have expertise in conducting careful community consultations that respect local consultative practices, traditions, and timeframes. Too often, mining companies do not build enough time into their planning to follow a consultation process through to its successful conclusion (either in favor or opposed to mine development). As a result, financial pressures that drive companies to keep projects "on track" often conflict with the

[205] Weitzner (2002); Tebtebba and Forest Peoples Programme (2003).
[206] WCD (2000); MMSD (2002); World Bank (2003).
[207] ICMM (2003: Principle 4).
[208] In Canada, the Lutsel K'e Dene Nation asked for funds to do its own Traditional Knowledge Assessment that would be considered side-by-side with the other information generated about the project.

time needed to seek consent.[209] The risk is that in these circumstances, companies may seek ways to "prove" they have consent even though the community has not benefited from a proper consultation process. Subsequent disputes, and often festering resentments, can plague a project for years to come, possibly resulting in expensive work stoppages or premature mine closure. Such financial costs may even affect a company's investment rating.[210]

C. Access to Information/Disclosure

Community men and women and indigenous peoples have the right to access all relevant information related to a mine project. Mining companies are usually required to disclose details regarding potential environmental and social risks to insurers and institutional lenders that want to protect their financial investment. The level of disclosure required by these private institutions is often higher than that required by public institutions, such as security and exchange commissions, which also require companies to disclose environmental and social risks to their investors. Information the company provides to private parties is normally considered confidential and proprietary. There are, as yet, no international standards that specify the type of environmental and social risks companies must divulge to communities, although communities may ultimately bear the greatest risks and costs of mine development. Gibson (2001) argues that providing communities with more accurate and detailed information on the risks of proposed mines may result in projects that will be less vulnerable to failure as they proceed.[211]

The Norm

Companies generally explain to communities how they will contain waste, minimize the off-site impacts from waste disposal and other hazardous materials, and monitor environmental impacts from their operations. They may do so in writing, or they may inform communities of these plans in public consultations. Companies also describe social programs they may be planning to conduct, such as livelihood programs, or infrastructure development. They may describe these projects in the context of off-setting livelihood losses faced by the community, or simply as gestures of goodwill on the part of the company.

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[209] A rare example of a positive negotiation process that led to an agreement between a mining company and local communities is the recent case of BHP Billiton and Tintaya communities in Peru. There have been recent social upheavals around the Tintaya mine; for more information see www.oxfamamerica.org/newsandpublications/news_updates/news_update.2005-06-10.3281933067.

[210] See, for example, Newmont's problems with its Yanacocha mine in Peru ("Newmont downgraded to sector performer," September 17, 2004, Dorothy Kosich, Mine Web at www.mineweb.net).

[211] Consultation is related to disclosure and is an area of evolving research and investigation. Gibson (2001) provides three rationales (instrumental, substantive, and normative) to buttress the need to respond to community information needs: (1) informed communities can become project proponents and help identify issues that need to be addressed in a timely fashion, allowing the company to respond before the issues become problems; (2) informed community members can identify local needs and strengths with respect to the project, and this information can be leveraged into growth opportunities; and (3) corporations and governments should obtain the consent of communities affected by mining.

However, most companies do not provide communities with risk assessments prepared for insurers or institutional lenders, nor do they disclose financial feasibility studies and other consultant reports that include a more detailed assessment of environmental and financial risks. Companies and their lenders generally cite the need to maintain commercial confidentiality as the reason to keep this information out of the public domain. However, mechanisms could be devised by which third-party experts, working for communities and sworn to confidentiality, could review these documents and provide advice to communities based on the information they have received.[212]

Leading Edge Issues

Some mining companies make the full text of their EIA publicly available.[213] And some companies conducting Social Impact Assessments are making these publicly available.[214] The following Leading Edge positions are reinforced through multistakeholder processes and international human rights instruments and supported by NGOs.[215]

(1) The company should provide full disclosure of pertinent information regarding a mining project to both women and men, as well as to marginal groups within potentially affected communities, in culturally appropriate forms and in locally accepted languages, as well as in English.

a. Mine development plans, including how much land will be affected, for how long, by what type of mining, planned processing facilities, and waste disposal;
b. Environmental, Social, Gender, and Conflict Impact Assessments;
c. A full assessment of financial, environmental, social, economic, and cultural risks based on the company's (and its consultants') financial feasibility studies and Environmental, Social, Gender, and Conflict Impact Assessments;
d. Complete information on the amount of a project's insurance against these risks;
e. Complete disclosure of all revenue generated from the mine and payments made to ensure revenue transparency and accountability, and to combat corruption and misappropriation of funds (see Chapter 4 on Governance for further details);[216]
f. Environmental and health baseline data collected by the company;
g. Mitigation, reclamation, and emergency response plans (see Chapter 2 on the Environment for details);

[212] There are examples of this in the negotiations leading up to Impact and Benefit Agreements in Canada between mining companies and indigenous communities. In these cases lawyers for the indigenous communities had access to additional information, such as financial data related to projected earnings of the mine that allowed them to advise the community on benefit-sharing possibilities. These lawyers were sworn to secrecy with respect to disclosing this information to third parties.
[213] However, there are no examples of companies that have also provided the original studies upon which the conclusions in the EIA are based.
[214] Placer Dome made its Social Impact Assessment of the impacts of a major tailings spill at its Philippine operations public. Social Impact Assessment (SIA) of the Marcopper Mine Tailings Spill, October 21, 1996.
[215] MPC (2001); Tebtebba and Forest Peoples Programme (2003); WCD (2000); ICMM (2003: Principles 4 and 10); MMSD (2002); Economic and Social Council, Supplement No. 23 (E/2004/43); OECD (2000).
[216] Oxfam Community Aid Abroad (2004).

h. Closure plans and bonding arrangements (see Chapter 2 for details); and
i. Record of daily health and safety incidents and environmental infractions at the mine.

The above constitutes information a mining company's executive officers, its lenders, and insurers require to evaluate a mine's financial feasibility, as well as the environmental and social risks to their investment. It is equally important for local community members to access this information so as to evaluate whether the mine will provide the community with negotiated benefits, weigh potential environmental and social risks against these benefits, and ascertain whether the company has adequate insurance against assessed risks to avoid the potential for unplanned costs being borne by the community.

(2) The company should provide accurate information regarding employment opportunities for local people at the mine project, especially for women, indigenous peoples, and marginal groups in the community, as well as information regarding positive and negative economic impacts on non-employed members of the community, and "just transition" arrangements for employees and the community post-closure.

Development of a mine can change local economies in ways that make it harder for people not receiving benefits from the mine to make a living, for example by degrading the environment and by increasing costs of everyday commodities and foods. Development of a mine can also make it difficult for people to make a living when the mine closes down by creating an unsustainable "enclave" economy on which the community comes to depend. Employment and sustainable economic livelihoods for employees and for non-employed members of the community both during the lifetime of the mine and post-closure are critical aspects of a mine's potential community "benefits." Companies should give communities accurate employment information, as well as information regarding programs that will be put in place to provide sustainable livelihoods for non-mining employed community members and for the whole community when the mine closes down ("just transition" provisions). Mining companies should also provide accurate information regarding potentially negative economic impacts so that benefits and costs can be taken into account in community decision-making processes for providing consent for mine development.

(3) If requested by the community, companies should facilitate site visits to other mines they operate. Communities should be allowed to choose the sites they wish to visit, and such visits should be designed to allow communities to fully explore the company's operations, including the opportunity to speak freely with other community members, as well as with critics, if any, of the mining company.

Community members need access to independent sources of information on the history of the company at its other operations, as well as its legal compliance track record[217] at those locations to properly evaluate the risks a mine may pose in their community. Some companies have

[217] It should be noted, however, that as laws in many jurisdictions are not very stringent, a good compliance record may not be an indication of low risk for communities facing a mine by that same company.

facilitated such visits to other mines they operate, but delegations rarely have a chance to meet with and talk to potential critics. Companies should facilitate, and allow enough time for, visits by individuals or groups of the community members' choosing.

D. Consent-Benefit and Compensation Agreements

If the process of prior consultation and disclosure leads the community to decide, with sufficient confidence, that benefits from mining will outweigh the risks, the community may agree to the initial stage of exploration, and/or to subsequent stages of a mining project. Because each stage of a mining project presents different challenges for a community, and because mining projects often evolve differently than anticipated at the outset, consent should be sought throughout the stages of mine development.[218]

Whether or not a community gives its consent for a project, the conditions under which the community will benefit from mining and be compensated for losses should be captured in a legally binding agreement.[219] Such agreements have been the focus of a number of recent publications and are generally described as an important means by which to ensure that communities' and their members' rights and interests are protected, and that benefits from mining are bestowed on the community.[220] According to the Central Land Council in Australia, the right to object to project development, which underlies benefits agreements, as well as the agreements themselves, can prevent conflict.[221]

The Australian Minerals and Energy Environment Foundation (AMEEF) report notes that there has been a "surge" in agreement making between indigenous communities and mining companies between 1996 and 2001 and has undertaken to identify "best practice" in agreement making.[222]

The Norm

Although some companies are recognizing the need to establish consent or evidence that they have a "social license" to operate, most do not verify that they have achieved consent before each stage of mine development. If unrest or other social problems at the site become public, the

[218] In Canada, some indigenous peoples have signed Impact and Benefit Agreements related to mining projects but do not feel that they have given their express consent for mining, or that these agreements imply that they have given their consent.
[219] These agreements have been written about by Keeping (1998) and are known under a variety of names: human resource development agreements, socioeconomic agreements, impact and benefit agreements, participation agreements, cooperation agreements, and so on. Quoted in *Mining and Communities*, September 2000.
[220] Keeping (1999–2000); O'Reilly and Eacott (1999–2000); O'Reilly (1999–2000); ISS and ACIL (2001); Sosa and Keenan (2001).
[221] "In fact, it is the right to say 'no' that avoids conflict. Furthermore, where traditional owners wish to proceed, it allows parties to pursue agreements with the comfort and certainty delivered by properly ascertained consent…. It delivers meaningful control over access to traditional owners who in-turn responded positively to mineral exploration and mining because of understanding and agreement on the conditions under which it will take place." (Central Land Council 1998: 9).
[222] ISS and ACIL (2001: 18).

company may be challenged to prove that it is welcome. In these cases, companies may try to persuade community leaders or some segment of the community to make statements in support of the company, or they may try to gather lists of signatures to prove community support. Usually, such actions take place after the company has sought permits to initiate mining in the community or when mining is already taking place.

Benefits Agreements with indigenous peoples and communities generally tend to occur where aboriginal rights to land are legally recognized, for example under comprehensive land claim settlements, providing the people and/or community the leverage needed to insist on the development of such an agreement.[223] Benefits Agreements are still the exception but are growing in number, especially with respect to indigenous communities. The AMEEF report (2001) reviews 140 Benefits Agreements in Australia and notes that all but 4 were concluded after 1994. As noted above, BHPBilliton and five communities in Tintaya, Peru signed a consent agreement in 2004, although reports from the area indicate there has been considerable social upheaval in the area, which may call the agreement into question.[224] Rio Tinto and Normandy also led mining companies in negotiating Consent Agreements with indigenous peoples in Australia, signing 68 agreements between them.[225]

Leading Edge Issues

The following positions are reinforced in multistakeholder processes and international human rights instruments[226] and reflect "best practice" as identified in the AMEEF report (2001).

(1) Companies should enter into binding contracts with communities that specify the terms under which a particular phase of a mining project may proceed. Such agreements should be mutually agreed upon and enforceable through the national court system in the country of operation or through mutually acceptable arbitration procedures.[227]

In addition to addressing the Leading Edge issues presented in this chapter, Benefits Agreements should also address the Leading Edge issues discussed in the previous chapter. Benefits Agreements should recognize and reflect the differing interests of women and men, indigenous peoples, workers, small-scale miners, and marginalized groups within the community. These agreements should deal with issues related to all stages of mining, including relocation, security, resource rents, closure, and reclamation. Community women and men should be provided with legal representation throughout the negotiation process, and may need training workshops to better understand the negotiation and legal process they are entering into.

[223] Sosa (2000: 63).
[224] For more information, see www.minesandcommunities.com.
[225] ISS and ACIL (2001: 14–15).
[226] Tebtebba and Forest Peoples Programme (2003); WCD (2000).
[227] Colchester et al. (2002); Whiteman and Mamen (2001); Weitzner (2002), cited in Tebtebba and Forest Peoples Programme (2003: 172); MMSD (2002).

Consent/Benefits/Compensation Agreements should also address the following:

a. The means by which communities will receive rents for the use of their land and share in wealth generated by the mine through, for example, sharing in a percentage of the value of extracted target metals on the day of their extraction, joint ownership schemes, royalty equivalents, equity in companies, rents and lease payments, community-directed appropriate development schemes, or other such mechanisms[228];
b. The means by which compensation will be paid for property and resources that community members may lose the use of as a result of the mine's operations, such as houses, land, water, and access routes;
c. Mechanisms to ensure the transparent and equitable administration of funds for community benefit;
d. Employment, education, and training (including training in impacts monitoring) for community women and men for mining-related work and for work related to sustainable alternative community development plans, including enterprise support and development, local service contracting, and so on;
e. Provision of community infrastructure and facilities;
f. Cross-cultural issues, including awareness training;
g. Information exchange and relationships between the company and the community—including good faith and respect for rights and interests;
h. The role of governments;
i. Protection of sacred sites;
j. Social programs;
k. Capacity building of community or indigenous peoples' institutions;
l. Detailed information on mine closure including financial provisions (bonding) that will be put in place by the company; mitigation, remediation, and precautionary measures that will be taken by the company; expectations regarding the length of post-closure treatment that will be required; and so on;
m. Mechanisms for independent environmental monitoring (see Chapter 2 on the Environment);
n. Provision of financial resources to address foreseen and unforeseen environmental or social impacts arising from the operation, including consideration of "worst-case scenarios";
o. An independent mechanism for monitoring compliance with the agreement that involves the community and its legal and technical representatives;

[228] Impact and Benefit Agreements that a number of mining companies have negotiated with indigenous communities in Canada are an example of wealth sharing from mining. In most of these cases the financial agreements were reached with the assistance of legal counsel for the communities. Most of these agreements are confidential, with the exception of the Raglan Agreement negotiated between Falconbridge and native communities in Northern Quebec. In this case the communities will receive a portion of the profits of the mine. It has been argued that this is not the best guarantee that affected communities will profit as mines can be unprofitable for any number of reasons including mismanagement. A fixed percentage of the value of the extracted resource on the date of extraction may provide a more equitable arrangement. Recently, a private members' bill (Bill 97) for the Government of Ontario, Canada, went through first reading (June 10, 2004). The bill ("An Act respecting the sharing of resource revenues for First Nations") calls for negotiations among the government, First Nations, and resource companies "aimed at arriving at a comprehensive revenue-sharing agreement."

p. Financial resources to enable community participation in dispute resolution processes regarding the agreement;[229] and
q. A clause establishing that the agreement will be reviewed regularly with the possibility that it will be renegotiated if need be.

Agreements should not entail the surrender of basic rights, such as full protection of key religious and cultural sites and areas vital to subsistence, recognition of indigenous peoples' rights over their lands and territories, their rights to the use and access of the natural resources that they depend on, and protection of subsistence activities and the environment and other resources necessary to sustain such activities.

Compensation for loss of land, assets, houses, income, livelihood, resettlement, the ability to engage in small-scale mining, cultural sites, nuisance, and environmental degradation must be addressed in binding Compensation Agreements. Issues to be considered include:[230]

- Not all community members may have legal title to the land they live and work on, but all inhabitants should be treated equally for the sake of compensation;
- Loss of land should be compensated for by land of higher value, in accordance with differing land uses, and non-monetary values of land should be considered;[231]
- Compensation rates should be agreed upon in advance, based on an independent assessment of the losses, and should be consistent among all people to be compensated;
- Women-headed households should be recognized and treated the same as male-headed households with respect to compensation;[232]
- Compensation should be decided through a process of negotiation between the company and the community;[233] and
- Companies should report the revenues generated from the mine and payments made to compensate community members for losses associated with the mine.

[229] At the same time, companies should not seek to influence the outcomes of such processes. To avoid undue influence, companies should set aside these resources in an independent fund managed in the interests of the community.
[230] See also the section below on Resettlement.
[231] International Alert (2005).
[232] Oxfam Community Aid Abroad (2004: 26).
[233] The range of issues that should be covered in Compensation Agreements are quite extensive and some are covered in other places in this document. For example: companies should put in place bonds to cover unexpected costs associated with environmental accidents of spills (see Chapter 2); companies should provide resettlement insurance in case resettlement does not occur according to plan (see upcoming section in this chapter); a dispute settlement mechanism should be put in place that is accessible for men and women as well as marginalized groups in the community (see the next section on Women in this chapter).

(2) Indigenous peoples and community women and men have the right to deny consent to a project if the project changes substantially or if the company does not honor its binding agreement with the community.

The value of legally binding compensation and benefits agreements is that these can oblige the proponent to live up to commitments made at the outset, unless changes to the conditions of the agreement are agreed upon by the community.

(3) If a community has withheld consent for a mining project, no further requests for consultation by that company or any other should be made within a five-year period unless the community indicates otherwise.

Community members should not have to face requests for consultation by companies after having withheld consent for a project after a reasonable period of negotiation. The regime established under Part IV of the *Aboriginal Land Rights Act* 1976 (Northern Territory, Australia) provides an example of how negotiation processes can be timed.[234]

E. Recognizing Women's Rights and Addressing Gender-Related Risks

It is widely recognized that women are the most discriminated against, the most vulnerable, and the least empowered members of many societies. It is therefore not surprising that approximately 70 percent of the world's poor are women.[235] It is also generally accepted that the most common impact of mining on women in affected communities is to deepen discrimination, marginalization, and poverty—in other words, to deepen gender disparity.[236] Indigenous women from mining-affected communities have articulated specific ways in which they are disadvantaged by mining in statements at a number of recent national[237] and international conferences.[238] Additionally, women mine workers have discussed the specific problems they face as workers in a "masculine" industry.[239]

The Norm

Because women are frequently not considered a distinct group of stakeholders in the planning and operation of a mine, they are often disproportionately affected by the negative social,

[234] Oxfam Community Aid Abroad (2004: 25).
[235] UNDP (1999) in MMSD (2002: 205); World Bank (2003: 44); Oxfam Community Aid Abroad (2002).
[236] MMSD (2002: 205); Oxfam Community Aid Abroad (2002: 6); Earthworks and Oxfam America (2004: 21); mines, minerals & PEOPLE (2003: 11); World Bank (2003: 44); Cleghorn, Edelson, and Moodie (2001).
[237] mines, minerals & PEOPLE (2003); Innu Nation and MiningWatch Canada (1999). See www.miningwatch.ca.
[238] Indigenous Peoples' Declaration on Extractive Industries, Oxford, U.K., 2003; the Kimberley Declaration, Kimberley, South Africa, 2002; see particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[239] Resolution on Indigenous Peoples and Women, India, 2004 (see below for a list of findings from this conference); National Seminar on Women and Mining in India (2003: 41–79).

environmental, and economic impacts associated with mining. A complete list of the specific risks currently faced by community women and indigenous women affected by mining, as well as by women mineworkers, would be a very long one. A summary of some of the key concerns that reflect "the norm" faced by women with respect to mining follows.

Women in communities affected by mining have stated that companies generally enter into negotiations only with men, leaving them to lose out on capturing benefits.[240] In some cases, the propensity of male mining company employees to seek out male community members for dialogue about the conditions for mining actually erodes a traditional power base held by women.[241] Frequently, women are reluctant to speak up as they do not want to jeopardize the work opportunities of their spouses.[242] Because women are less able to access the benefits of mining, including jobs, they become more dependent on men in mining communities.[243] In some countries, women are prohibited from working in mines at all.[244]

Where women are not permitted to own land, they are excluded from compensation payments paid to landowners. As the traditional roles and responsibilities that provided them with wealth and status are replaced by a local cash economy, women may become marginalized. A woman's workload may increase as men work in the newly created cash economy rather than at home, and environmental contamination can make it harder for women to supply the household with food and clean water.[245] Women may also lose opportunities for income, for example from agriculture or artisanal mining, with the introduction of large-scale mining.

Women typically suffer disproportionately from health-related problems such as an increased risk of HIV/AIDS and other sexually transmitted diseases, family violence, rape, and prostitution—all of them fueled by alcohol abuse and a transient male workforce.[246] Women commonly bear the brunt of mining-related psychological stresses on a community—such as relocation—in the form of increased domestic violence.[247]

Indigenous women affected by mining have experienced many of the same problems as women in non-indigenous communities. However, the impacts on indigenous women related to the

[240] See particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[241] Macdonald (2004).
[242] MMSD (2002).
[243] Women make up only a very small percentage of the workforce in large-scale mining; only 8–14 percent of workers in the Australian mining industry are women, of which only 2–20 percent work within the professional technical divisions of mining. For more information on possible reasons for their exclusion, see Macdonald (2004).
[244] See particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[245] Earthworks and Oxfam America (2004: 21); see the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[246] Oxfam Community Aid Abroad (2002); see particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[247] Oxfam Community Aid Abroad (2002: p.6).

imposition of a "mining culture" and a cash-based economy, among others, may be exacerbated by cultural, economic, and geographic isolation.[248] In addition, indigenous women report that companies do not recognize the religious and spiritual connections of indigenous women to their environments and land when they are displaced by mining.[249]

Women mine workers, especially locals residing in the community, experience some of the same mining-related stresses as other women in local communities, such as concerns for health in a deteriorating environment. Women working in mining are employed primarily in the small-scale and artisanal mining sector. Women mine workers from both developed and developing countries were well represented at a recent conference held in India on Women in Mining (October 2004). These women stated that:[250]

- Formal large-scale mining is a masculine industry that is not friendly to women mine workers;
- Large-scale mining has low participation of women workers owing to a family-unfriendly work environment (e.g., shift work, hazardous conditions at the mine, and remote mine locations, sometimes necessitating "fly in, fly out" operations);
- Discriminatory attitudes of many of those involved in the industry, unequal work and pay conditions, and restrictive laws inhibit the equal participation of women;
- Sexual harassment and even violence in the workplace is a common concern;
- Health and safety is a concern owing to lack of suitable (fitting) equipment, clothing, and protective gear for women;
- Women often are not provided with job and career training to advance their positions in the mine or to engage in tasks other than traditional female jobs, such as secretarial or administrative work;
- In some countries women are not allowed to work in mines;[251]
- In some countries women are contracted for short periods to do very hazardous work, for example handling uranium or asbestos;[252]
- Women are disproportionately at risk for contracting HIV/AIDS as a result of working in the mining sector.[253]

The specific issues faced by women working in artisanal and small-scale mining are discussed in a separate section.

Leading Edge Issues

The leading edge positions below reflect positions in international human rights instruments, as well as findings from multistakeholder processes, and women's conferences.[254] In general, a

[248] Indigenous Peoples' Declaration on Extractive Industries, Oxford, U.K., 2003.
[249] National Seminar on Women and Mining in India (2003: 20).
[250] Findings reported in the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004, (www.mmpindia.org/womenmining.htm).
[251] An example is Fiji (pers. comm. with Ingrid Macdonald).
[252] National Seminar on Women and Mining in India (2003: 81–82).
[253] Macdonald (2004).

mining company on the leading edge realizes the disproportionate impact that mining can have on community women and women mineworkers. Leading edge companies should address these potential negative impacts by conducting their activities in a way that is consistent with international human rights instruments protecting the rights of women.[255] These instruments address discrimination on the basis of gender in the workplace and the difficulties women mine workers with families face. The instruments also recognize the right of women to participate as equals in decisions that affect them, particularly with respect to "economic, social, cultural and political development,"[256] and provide protection for women mine workers.

(1) Companies should conduct Gender Impact Assessments (GIAs) in conjunction with Environmental and Social Impact Assessments before mining starts.

A Gender Impact Assessment, conducted by an independent and qualified individual or team, identifies specific risks local women face should a mine proceed. A GIA also provides an opportunity to assess how women's participation in decision making can be facilitated and, provided women consent to a mine going forward, forms the basis for discussions with women in the community about how impacts and risks specific to women can be avoided, mitigated, and/or compensated for. A GIA provides opportunities for women to define what is appropriate development and participation for themselves.

Community women should be actively involved in choosing GIA consultants and should actively participate in all aspects of the studies. Recommendations from a GIA should inform all aspects of the design and progress of a mining project: "Consultants, companies and all others, should respect that the information gathered during these studies is the intellectual property of local women and men and it should not be used in any way that they do not provide informed consent to."[257]

Although most mining companies do not currently conduct GIAs, governments have taken steps to conduct such assessments. The European Commission has published a guide to GIAs to "mainstream" a gender perspective throughout the policies and programs of the European Union, in accordance with requests made at the Women's Conference in Beijing in 1995.[258] The Department of Justice's Equality and Law reform in Ireland has also committed to carrying out

[254] World Bank (2003); Oxfam Community Aid Abroad (2002, 2004); MMSD (2002); National Seminar on Women and Mining in India (2003). See particularly the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm); Earthworks and Oxfam America (2004); UNEP (1992); WCD (2000); the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) of 1981, and the Beijing Platform for Action of 1995.

[255] Beijing Declaration and Platform for Action (1995); International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) of 1981; UDHR, 1948; the UN Development Fund for Women; Vienna Declaration and Program of Action (1993); UNCED (1992); UN Declaration on the Right to Development (1986); the Proposed Draft Human Rights Code of Conduct for Companies (2000); ILO 111, 1958, *Discrimination (Employment and Occupation) Convention*; ILO 156, 1983, *Concerning Equal Opportunities and Equal Treatment for Men and Women Workers: Workers with Family Responsibilities*.

[256] The 1986 *Declaration on the Right to Development.*

[257] Oxfam Community Aid Abroad (2002).

[258] See www.europrofem.org (accessed December 29, 2004).

GIAs to assess the impacts of its programs, and has prepared an assessment form for this purpose.[259] The Government of India, in conjunction with UNDP, recognizes women as the "primary managers of natural resources," but also acknowledges that they "usually do not have access to, or control of, these resources" leading to negative impacts on their health, economic condition and social status. In response, the Indian government and UNDP are conducting a GIA of the Indian government's environment program.[260] Mining companies should adapt these tools and apply them to their own operations.

(2) If the mine proceeds, regular gender audits should be conducted to evaluate impacts and compliance with agreed-upon measures over time.

As above, community women should be actively involved in choosing auditors and assessing whether recommendations from the GIA are being followed. The results of these audits should be fully disclosed and their subsequent use should be subject to the approval of community women.

(3) Companies should compensate households headed by women just as they would those headed by men.[261]

(4) In conjunction with women, companies should develop, implement, and enforce a code of conduct for their employees that covers responsible use of alcohol, relations with local women, increased risk for sexually transmitted diseases and HIV/AIDS, and gender sensitivity training in the workplace and in the community. Employees should be made aware of the Code of Conduct.[262]

Companies are responsible for ensuring that the actions of their local employees do not negatively affect local women. A corporate code of conduct covering health and safety issues that affect women would help minimize the negative impacts of mining on women.

(5) Companies should comply with international labor standards that safeguard women with equal pay for work of equal value; safe and healthy working environments; and freedom from discrimination, violence, and sexual harassment.[263]

[259] See www.ndpgenderequality.ie (accessed December 29, 2004).
[260] See www.undp.org.in (accessed December 29, 2004).
[261] See the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).
[262] Oxfam Community Aid Abroad (2004: 29).
[263] See the proceedings and final statement, declaration, and resolutions of the Third International Women and Mining conference held in Visakhapatnam, India, October 2004 (www.mmpindia.org/womenmining.htm).

(6) Women mine workers should have access to paid maternity leave and childcare leave. Breast feeding and crèche facilities should be provided on site unless an alternative location is preferred by women mine workers. Women mine workers who become pregnant while working at the mine should be provided with the option of appropriate alternate employment during pregnancy and early motherhood that does not expose them to hazardous substances and dangerous work.[264]

(7) Women mine workers should be allowed the option to participate in the development and implementation of mining company policies, and internal monitoring, evaluation, and verification systems to ensure that mine managers and other mine employees protect and promote women's rights and equality.[265] *The company should put in place accountability, verification and incentive mechanisms to encourage and enforce these policies and systems.*[266]

(8) Mining companies should encourage and provide employment training opportunities for women in the formal mining sector in all areas of work, including underground mining and blasting, not just in traditional clerical positions.[267] *Companies should also provide training and jobs for women in social and environmental impact monitoring.*

(9) At the national level companies should encourage governments to develop the appropriate capacity, allocate sufficient resources, and foster the political will necessary to develop, implement, and enforce successful policies and legislation that reflect human rights and labor standards and address all aspects of relations between mining companies and local community women and women mine workers.[268]

F. Recognizing Labor Rights and Addressing Worker-Related Risks

Mining labor issues include local community participation in mining-related jobs, broader training opportunities for entire communities, worker health and safety, the right to organize collectively, gender equity, and, as noted earlier, "just transition"—that is, ensuring that workers are able to sustain their livelihoods after mining.[269]

Mining is hazardous work. The ILO estimates that mining accounts for 5 percent of worker deaths per year in an industry that employs under 1 percent of workers globally.[270] Statistics on work-related injuries for miners are not available. However, mining poses significant occupational health threats to its workers, such as respiratory diseases and diseases related to metal contamination.[271] Up to 12 percent of coal miners develop fatal diseases.[272] Owing to the

[264] Ibid.
[265] Ibid.
[266] Oxfam Community Aid Abroad (2002: 7).
[267] Ibid.
[268] Ibid.
[269] World Bank (2003: 68); MMSD (2002: 127–28); Kuyek and Coumans (2003).
[270] MMSD (2002:128); ILO (2001). Approximately 15,000 miners lose their lives each year (Earthworks and Oxfam America 2004: 24). It is expected that a disproportionate number of these deaths are in China; exact figures are hard to come by, but the global numbers remain high.
[271] Stevens and Ahern (2001).

unusual structure of mining communities—that is, the transience of the work force—HIV/AIDS is also a major concern for mine workers globally. Shift work, living in isolated locations, and lack of gender balance in the workplace can all contribute to mental health stress.[273]

The Norm

Mine workers have traditionally had a rocky relationship with mining industry management. The ICMM's sustainability principles do not recognize workers' basic right to collective bargaining in its guiding principles.[274]

Women mine workers experience discrimination in the workplace, harassment, and working conditions that are particularly unsafe for women.[275] Indigenous mine workers have frequently found it difficult to integrate into the work culture. Mining companies are still primarily focused on safety in the workplace and not on health, including the mental health and well-being of their workers.[276] Some mining companies work in countries that allow child labor and forced labor.[277]

Leading Edge Issues

The following positions are reinforced by international human rights instruments and multistakeholder processes.[278] In general, mining companies are on the leading edge when they conduct their activities in a way that is consistent with international labor conventions, such as the following:

- The 1995 ILO Convention on Safety and Health in Mines (ILO 176), even in countries that have not yet ratified this convention. ILO 176 ensures:
    - Adequate training, retraining and instructions;
    - Supervision and control on each shift;
    - Investigation of all accidents, with remedial action taken and a report made;
    - Regular health surveillance of workers;

  The Convention also enshrines the principle that the responsibility to coordinate safety lies with the employer.[279]
- In addition to ILO 176, the following have been identified as critical for mining: ILO 81 (1947) regarding labor inspection; ILO 148 (1977) regarding the working environment; ILO 155 (1981) regarding occupational health and safety; ILO 161 (1985) regarding occupational health services; ILO 162 (1986) regarding asbestos; ILO 170 (1990)

[272] MMSD (2002: 130).
[273] For information on concerns regarding women mine workers see also the section on Women above.
[274] ICMM (2003).
[275] See also the section on Women.
[276] Jennings (2001a: 8) notes that ILO wants the focus in mining to shift from looking at safety to looking at health.
[277] Burma is an example.
[278] ILO Conventions; Earthworks and Oxfam America (2004); Young and Septoff (2002); Oxfam Community Aid Abroad (2004); Rio Tinto (2003a, 2003b); Anglo American (2002b); OECD (2000); MMSD (2002); World Bank (2003).
[279] Jennings (2001a: 9).

regarding chemicals;[280] ILO 29 article 5 (1930) and 105 article 1 (1957) regarding forced labor; and ILO Convention 156 (1983) regarding the rights of men and women workers with family responsibilities.

- ILO's eight core labor conventions (No. 87, 98, 29, 105, 111, 100, 138, 182) covering freedom of association (forming unions), the abolition of forced labor, equality, and the elimination of child labor, captured in ILO's 1998 *Declaration on Fundamental Principles and Rights at Work.* The Declaration nominates and justifies the eight core ILO conventions and seeks ILO member states to respect them regardless of whether they have ratified all of them.[281]
- The UN Declaration on Human Rights, particularly Articles 23 and 24.
- Sections addressing labor in the UN's Proposed Human Rights Code of Conduct for Companies (2000).

(1) Companies should respect the right of their employees to join a union and the right of their employees to bargain collectively.

Companies should not frustrate or oppose workers' efforts to unionize and should enter into negotiations willingly and bargain in good faith for a collective agreement.

(2) Together with representatives from employee organizations, companies should implement training sessions to educate employees on their basic labor rights and establish independent verification and monitoring procedures to ensure that basic labor rights are protected.

At a workshop organized in London in 2001 (Worker and Community Health and Safety Informal Experts Meeting), participants noted the importance of independent verification of the implementation of corporate safety measures, given that voluntary measures are inadequate to ensure compliance.[282]

(3) Together with representatives from employee organizations, companies should establish formal and confidential complaint mechanisms for employees.

Workers can often assist companies to ensure that environmental and social commitments and requirements are implemented. However, in some cases, workers who have brought such complaints to the attention of management claimed that their employment was unfairly terminated or that they were otherwise intimidated by senior management.[283] To encourage employees to bring forward potential environmental or social violations, companies should

[280] Jennings (2001a: 9) notes that of the 31 ILO conventions on occupational safety and health, eight are of particular importance for mining.
[281] Pers. comm. with Peter Colley.
[282] Jennings (2001a: 9).
[283] Two women and one man who are former employees at Newmont's mine in Nevada have filed a lawsuit against the company claiming that their employment was terminated after they brought environmental violations to the attention of senior management. *Reno News and Review*, September 4, 2003.

institute a "whistleblower" policy that protects employees from any retribution as a result of reporting environmental or social problems at the mine site. Such a policy should also provide protection for employees who report contraventions of the law or the company's policies with respect to labor rights.[284] Although most mining companies have not instituted such policies, some NGOs have taken steps to protect their employees' rights when reporting organizational and policy violations.[285]

(4) Mining companies should provide job training to local community members so that they can employ a maximum percentage of their labor force locally.

Where communities seek jobs as a benefit of mine development, companies should ensure that community members are given ample opportunity to capture this benefit. This includes ensuring that local community members are given priority consideration for mine-related jobs, as well as instituting job training programs to help them develop the necessary skills to work at the mine. In preparation for mine closure, companies should also provide skill training to prepare employees and members of the community for non-mining related work (alternative economic development). Such training should include economic programs for "just transition" of the work force and the community in advance of mine closure.

(5) Mining companies should maximize training and employment opportunities for women and take active measures to counter discrimination against hiring of women, harassment of women in the workplace, and unsafe working conditions for women.

Companies should actively recruit and train women to join the work force. Because women report facing a hostile work environment at many mines, companies should institute internal employee training to ensure that women are not harassed or discriminated against in the workplace. Gender discrimination and harassment is illegal in the United States and in other developed countries.

Companies should also develop and implement monitoring and verification systems to ensure gender equity, in consultation with their female employees. They also should provide accessible, confidential, and independent means by which women can file complaints without fear of retribution. Finally, companies should ensure that women have suitable equipment and safe working conditions.

(6) In addition to gender equity, companies should ensure equal pay for equal work, as well as equal employment opportunities and protections for workers of any race, ethnicity, religion, caste, sexual orientation or political opinion.

[284] OECD (2000).

[285] Most of the large conservation NGOs (e.g, WWF, WRI, TNC) have whistleblower policies to protect employees and ensure integrity and honesty in the way the organization operates.

Equal opportunity employment (EOE) is widely practiced in most developed countries and is a legal requirement in the United States. Mining companies should adopt EOE standards in all their operations. To demonstrate progress toward meeting EOE goals, companies should publicly report the gender, race, and ethnicity of their work force, as well as summary statistics indicating the number of women and minorities in management positions and the pay differential between them and their non-minority counterparts.

(7) Mining companies should provide HIV/AIDS awareness training for all staff and their families and develop policies to protect, support, and provide for staff and their families living with HIV/AIDS. As women mine workers are particularly vulnerable to HIV/AIDS, prevention and protection programs should be particularly directed at women.

The prevalence of sexually transmitted diseases as a result of mining is especially acute in developing countries. To address this problem, companies should implement training programs aimed at reducing this risk to their workers and local community members. Anglo American has implemented such a program in South Africa.

(8) Mining companies should prioritize workplace health and safety and adopt a broad view of health.

Companies should adopt the World Health Organization's holistic definition of health as encompassing mental, social and physical, and spiritual aspects. As such, corporate health and safety policies should address sexual harassment of women, dangerously long shifts that cause extreme fatigue, social and family problems, and the stresses indigenous peoples experience in fitting into a Western corporate culture.

(9) Companies should not develop mines if they are prohibited from hiring unionized labor, or if their employees are subjected to forced labor.

Some countries routinely support actions that violate international human and labor rights. For example, unionized labor is not permitted in Burma. Whether companies should engage in activist promotion of human rights policies is contentious. In some cases (e.g., Iraq) sanctions aimed at punishing governments have come at the expense of already disadvantaged populations. In addition, companies argue that responsible corporate behavior can catalyze social change in otherwise repressive regimes.

NGOs argue that especially autocratic regimes may hamper a company's ability to operate in a socially responsible manner. They also argue that a company can be an agent for positive change by withholding investment, therefore making it clear that a country's poor track record on human and labor rights is the reason to withhold investment. In the case of Burma, investment in the country necessarily entails payments to the regime and so, in effect, supports its continued existence.

G. Recognizing the Rights of Small-Scale and Artisanal Miners and Addressing Risks to Their Livelihoods

The ILO estimates that 13 million people in approximately 55 countries are employed in Artisanal and Small-Scale Mining (ASM)—far more than the number of employees in large-scale metal mining globally.[286] ASM is mainly a rural activity practiced primarily by the world's poorest people.[287] ASM is labor intensive with generally low rates of recovery. It is also likely to be hazardous to the health of ASM workers, to have serious environmental impacts, and to employ child labor.

Women make up a higher percentage of the work force of artisanal small-scale miners than at large-scale mining operations.[288] It is widely recognized that the opportunity ASM provides women to acquire income is important not only for poor women but also their families, as women tend to use the income derived from ASM to support their children by buying food and clothing and investing in other income-supplementing activities.[289] In the case of artisanal mining in particular, entire families may work together.

ASM is frequently practiced on a part-time basis, providing supplemental and seasonal income. It is also often conducted informally, without a legal permit or title to the mined land.[290] In either case, the legal status and economic position of artisanal and small-scale miners is precarious. Displacement by large-scale mining operations constitutes one of the main threats to these individuals' livelihood. Exploration companies may use the presence of small-scale miners as an indicator of the presence of commercial deposits. If large-scale mining companies claim deposits worked by small-scale miners, vehement conflicts may ensue, sometimes leading to violence.

While some types of ASM—particularly those related to sudden resource booms and large-scale in-migration—may lead to many of the same environmental, health, and social problems associated with large scale mining,[291] it is widely recognized that ASM may be a vehicle for poverty reduction if it can be brought into the formal economy and if environmentally friendly technologies are supported.[292] This perspective is now supported by the programs of international organizations such as the United Nations, the World Bank, and the ILO.[293]

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[286] ILO (1999). Employment in the global mining industry is estimated at 2.75 million (Earthworks and Oxfam America 2004: 25).
[287] Echavarria (2004); MMSD (2002: 315).
[288] Surveys conducted in 16 developing countries show that women represent an average of about 30 percent of the ASM workforce (MMSD 2002: 316 and United Nations Economic and Social Council 1996, cited in MMSD 2002: 316).
[289] MMSD (2002: 317); Echavarria (2004).
[290] For examples in Cambodia, see Oxfam America (2004).
[291] MMSD (2002: 322).
[292] Echavarria (2004); MMSD (2002: 326); Hinton et al. (2002); World Bank (2003: Vol. I, pp. 55–56).
[293] As early as 1994, the Department of Economic and Social Affairs (DESA) of the United Nations recognized that ASM should be considered from the perspective of socioeconomic development and poverty eradication (see decision 308). DESA is now running pilot projects in ASM areas in a number of African countries. ILO has expressed interest in the issue from the perspective of eradicating child labor and has brought the International Federation of Chemical, Energy, Mine and General Workers Union on board. The World Bank Extractive Industries Review recommended a much stronger Bank involvement in ASM (World Bank 2003). The World Bank has also

The Norm

In spite of growing recognition by international organizations such as the ILO, the World Bank, and the United Nations of the potential for small-scale mining to reduce poverty in developing countries, tensions between small-scale miners and mining companies remain. Neither ICMM's sustainability principles, nor those of specific companies, such as Rio Tinto and Anglo American address the issue of ASM, although some of these companies operate in areas where small-scale miners are active.

Many mining companies tend to view small-scale miners as illegal and take a legalistic approach to removing them. Once mining companies establish their claim over a concession, they often appeal to the government for assistance in removing the small-scale miners and prosecuting any who resist eviction.

Leading Edge Issues

The positions in this section are supported by international human rights instruments, as well as the World Bank, the ILO, and the United Nations.[294] In general, mining companies are on the leading edge when they recognize the rights of artisanal and small-scale miners under the UN Draft Declaration of Human Rights (particularly articles 9 and 12 dealing with involuntary eviction), as well as under the Proposed Draft Human Rights Code of Conduct for Companies. A leading edge company recognizes that artisanal and small-scale miners are afforded rights under the Declaration on Social Progress and Development; the Declaration on the Right to Development; and the International Covenant on Economic, Social and Cultural Rights. Indigenous artisanal and small-scale miners can also appeal to the UN Draft Declaration on the Rights of Indigenous Peoples and ILO 169.

(1) Mining companies should engage small-scale miners and their communities, help them obtain legal status, integrate them into the formal sector, help them gain access to markets, and

hosted an initiative known as the Communities and Small-Scale Mining (CASM) initiative to further explore the positive potential of ASM. See Echavarria (2004).

[294] United Nations organizations and instruments addressing small-scale mining include the UN's DESA, which organized a seminar with UN ECA on "Artisanal and Small-Scale Mining in Africa: Identifying Best Practices and Building the Sustainable Livelihoods of Communities" that was held in Yaoundé, Cameroon, November 19–22, 2002. The seminar led to a statement on small-scale mining "identifying best practices." See World Bank (2003); MMSD (2002); UN Draft Declaration of Human Rights, particularly articles 9 and 12 in case of involuntary eviction; Proposed Draft Human Rights Code of Conduct for Companies; Declaration on Social Progress and Development, the Declaration on the Right to Development; the International Covenant on Economic, Social and Cultural Rights. Indigenous artisanal and small-scale miners can also appeal to the UN Draft Declaration on the Rights of Indigenous Peoples and ILO 169. See also previous footnote.

provide technical and educational resources that will allow them to work in a more environmentally and socially sustainable fashion.[295]

There is growing recognition that ASM is a major source of employment and family income in some of the world's poorest regions, and that it employs many poor women.[296] The World Bank Extractive Industries Review (EIR); the ILO; and the UN Department of Economic and Social Affairs, Mining, Minerals and Sustainable Development[297] all support this Leading Edge issue, as do some mining companies.[298]

(2) Mining companies should adhere to guidelines on relocation and compensation if small-scale miners have to be removed from their homes and places of work.

Small-scale miners should not be relocated without their consent. If they do consent to relocation, the miners should be provided compensation that leaves them better off than they were in their former location. The following section deals with issues of relocation and compensation that applies to small-scale miners as well as all affected communities.

H. Resettlement/Relocation and Compensation

The issue of "mining-induced displacement and resettlement" has become so prominent that it has acquired its own acronym—MIDR. Many researchers have pointed to displacement of populations as one of the greatest sources of impoverishment associated with large development projects around the world, in part because populations subjected to resettlement already tend to be poor and marginalized.[299] Large development projects (e.g., dams and large-scale resource extraction) that displace populations can be a major source of societal instability.[300] The World Bank has recognized the severity of these risks in its policy on involuntary resettlement.[301] The World Commission on Dams has identified nonpayment of promised compensation for resettlement as one of the greatest "stressors" for populations displaced by dams.[302]

Poverty-inducing consequences of resettlement commonly include homelessness, landlessness, food insecurity, increased morbidity and mortality; loss of employment, marginalization, loss of access to common resources, loss of access to public services, loss of social cohesion, and risks

[295] World Bank (2003: 55–56).
[296] DESA of the United Nations; ILO; MMSD (2002); World Bank (2003); and others.
[297] MMSD (2002: 401).
[298] Placer Dome assisted small-scale miners on its Las Cristinas concession to obtain legal title and permits to extract alluvial gold on a small portion of the concession using environmentally friendly technologies. The company has since sold development rights to the concession to junior mining company Crystallex, which has sought to forcibly remove the small-scale miners.
[299] Atkinson (1998); Tujan and Guzman (1998); Akabzaa (2000); Palacin (1999); Cooperaccion (1999); Kambell and MacKay (1999), cited in Sosa (2000); Sonnenberg and Muenster (2001); International Network on Displacement and Resettlement (www.displacement.net); International Alert (2005).
[300] MMSD (2002: 158).
[301] World Bank Policy on involuntary resettlement (2001).
[302] MMSD (2002: 161)

to host populations.[303] In the case of indigenous peoples, displacement from traditional territories also means loss of cultural identity and is a threat to their existence as a people. In addition to indigenous peoples, women, children, and the elderly are most vulnerable to resettlement.[304]

In analyzing failed resettlements, Sonnenberg and Muenster (2001) have determined that the resulting impoverishment was caused by a failure to focus on and implement mechanisms that would ensure the long-term health of relocated communities. Such resettlement attempts tended to focus on expropriation and physical relocation rather than income reestablishment and socioeconomic development. As such, they provided inadequate and inappropriate compensation and did not facilitate "land for land" alternatives. There were no mechanisms in place to enforce compliance with a resettlement plan and, hence, no opportunities for communities to seek redress. Baseline socioeconomic data on the population were not collected, and proper consultations were not conducted either with the relocating or host communities. These issues must be addressed by mining companies before considering a project that will require resettlement and are reflected in the Leading Edge issues described below.

The Norm

International financial institutions[305] and mining companies and governments recognize that resettlement poses serious risks to the communities affected by development. However, few financial institutions and companies recognize that communities should not be involuntarily resettled. The European Parliament has opposed forced resettlement in a resolution responding to the World Bank's EIR.[306] Nonetheless, populations are commonly displaced by mining projects without a prior and informed consent agreement and "the mining industry, financiers, and governments often externalize displacement costs onto the weakest party—the displaced."[307] There are no industry-wide standards outlining how to properly assess resettlement costs or mitigate its impacts. Resettled peoples often suffer the immediate costs while governments incur long-term costs.[308]

Leading Edge Issues

The Leading Edge issues listed below are reinforced by international human rights instruments and multistakeholder processes.[309] They are also supported by lending institutions[310] and some companies.[311]

[303] MMSD (2002: 159); Sonnenberg and Muenster (2001).
[304] Sonnenberg and Muenster (2001); Feeney (1995).
[305] IFC (2002); World Bank (2004); ADB (1998); Equator Principles (www.equator-principles.com); Inter-American Development Bank, Operational Policy on Involuntary Resettlement (www.iadb.org); Japan Bank for International Cooperation (JBIC 2002); OECD (1997).
[306] European Parliament resolution (2004: point 10 (c), PE 344.178\89) on the World Bank–commissioned Extractive Industries Review (World Bank 2003).
[307] MMSD (2002: 403).
[308] MMSD (2002: 161).
[309] MMSD (2002); World Bank (2003: 38–39); WCD (2000); World Bank (2001); UN Committee on Economic, Social and Cultural Rights; UN Declaration on the Right to Development, 1986; UN Proposed Draft of Human Rights Code of Conduct for Companies (2000: 24, E/CN.4/Sub.2/2000/WG.2/WP.1/Add.1, May 25, 2000); UN

(1) Resettlement should be avoided if at all possible and should not occur without the free, prior, and informed consent of affected individuals set out in a binding Consent Agreement.[312]

The negative consequences of mining-induced displacement and resettlement are so severe[313]—and the track record of successful mitigation of negative impacts so poor[314]—that resettlement should be pursued only if there are no other options for mine development and only with the written consent of affected individuals. This approach is supported by the World Bank's Involuntary Resettlement policy. If resettlement cannot be avoided, at a minimum all efforts must be taken to minimize resettlement impacts.

(2) Voluntary resettlement must be preceded by a detailed displacement impact assessment that assesses all possible costs to communities and individuals who will be affected by the displacement, either directly or indirectly.

A detailed displacement impact assessment should assess prior conditions, likely impacts and mitigation needs, use and ownership of land and resources, and the cultural and spiritual role of land to the affected communities. In addition, such assessments should take into account the particular nature of women's work, their relationship to land and natural resources, and their social, cultural, and spiritual roles in the community. Compensation and benefits should be based on an independent assessment of current livelihoods, spiritual connections to the land, and assets, "including the value of informal activities and resources that are not captured through property rights."[315]

(3) Companies should allow enough time for assessment, consultation, participation of affected people, alternative land acquisition, and resettlement.[316]

This process can take two to three years.[317] Those facing resettlement must be given the opportunity to participate fully in decision making regarding the resettlement process, including

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Universal Declaration of Human Rights, 1947; UNCED (1992: Principle 13); *Dow Jones Newswires*, Dec 14, 2004; Geneva Conventions and Additional protocols I and II (www.genevaconventions.org).

[310] See footnote 201.

[311] See BHP Billiton, the Tintaya agreement. There have been recent social upheavals around the Tintaya mine; for more information, see www.oxfamamerica.org/newsandpublications/ news_updates/news_update.2005-06-10.3281933067.

[312] Oxfam Community Aid Abroad (2004); International Covenant on Economic, Social and Cultural Rights, General Comment No. 4 and No. 7, The Right to Adequate Housing (Art. 11(1) of the Covenant), adopted at the Committee's Sixth session, 1991; World Bank (2003: 58); International Alert (2005).

[313] MMSD (2002: 158-161); World Bank (2001); WCD (2000); Oxfam Community Aid Abroad (2004).

[314] WCD (2000).

[315] World Bank (2003: 58).

[316] International Alert (2005).

[317] Ibid.

being offered choices and alternatives in the final outcome. Communities expected to host those being resettled should also be fully consulted throughout the process.

(4) Absence of legal title should not constitute a barrier to compensation through the resettlement process.[318]

The poor in many developing countries do not hold legal title to the land they live and work on. Rather than dismissing such individuals as illegal "squatters," companies should operate according to international human rights law and best practice. As such, companies should not seek the assistance of governments in clearing people from land provided to the company under a concession agreement without due process.

(5) Resettled individuals should be better off in their new situation than they were before resettlement.

The World Bank's EIR, the World Commission on Dams, NGOs, and the MMSD report[319] recognized the importance of ensuring that the livelihoods of resettled individuals improve compared to their prior conditions. To achieve this goal, companies should ensure that affected individuals and communities participate in resettlement negotiations and plans. For individuals relying on land for subsistence agriculture or for their livelihoods, compensation should include replacement of land of equal or better value for land that is lost.[320]

(6) No displacement should take place until all likely risks and outcomes have been independently assessed for men and for women, a binding agreement is in place, compensation has been provided, alternate land has been allocated, people have had a chance to start rebuilding in the new location and policies and facilities are in place that allow resettled people to preserve or increase their standard of living.[321] *In addition, resettled individuals should be able to access an independent complaint and dispute resolution mechanism.*[322]

Companies should ensure that communities are given the opportunity to weigh costs and benefits, and negotiate the terms of resettlement, including an assessment of resettlement costs and proposed organizational arrangements. A legally binding resettlement agreement developed with the participation of affected individuals and communities should be in place. Resettlement

[318] Ibid.
[319] World Bank (2003: 58); Oxfam Community Aid Abroad (2004: 25); MMSD (2002: 160); WCD (2000: XXXV); *Dow Jones Newswires*, Dec. 14, 2004.
[320] An example is provided by the BHP Billiton Tintaya agreement. The agreement states that BHP Billiton will acquire new lands for each of the five affected communities based on the amount of land expropriated by the government and subsequently bought by the company, plus 25–50 percent in additional lands, depending on land quality, as determined by the communities ("Peru Communities, Copper Mine Reach Historic Agreement," December 21, 2004). (See www.oxfamamerica.org/newsandpublications/news_updates/archive2004/Tintayaagreement.)
[321] Oxfam Community Aid Abroad (2004: 25).
[322] World Bank (2003: 58).

plans should be planned as comprehensive development programs, aimed at improving living standards. Consultation should be maintained after resettlement, and regular monitoring of the program should occur to ensure livelihood restoration.[323]

The agreement should include information regarding the company's reclamation and closure plans. Details of these plans should address the post-closure availability of land lost to mining, as well as outline the options for resettled people to return to their land. It should also provide adequate financing to cover all costs of resettlement, and detail benefit arrangements for resettled individuals. Because women and men's land and natural resource use patterns may vary, women's needs should be considered separately. Women should have equal access to legal title to the land upon which they will be resettled.[324]

The agreement should also ensure that individuals are resettled as closely as possible to other members of their community. It should provide economic programs as well as capacity-building and job training opportunities. Resettled individuals should have access to the same benefits that other affected community members are entitled to, such as a share of mine-related jobs, revenue sharing, and other benefits. If resettled individuals are relocated to established settlements, every effort should be made to ensure their social and economic integration within the established community so that negative effects on both communities are minimized.[325]

Resettlement programs should be planned as development programs, aimed at improving living standards, and consultation should be maintained after resettlement, as well as regular monitoring of livelihood restoration.[326]

(7) Companies should encourage the establishment of dispute resolution mechanisms so that affected women and men can freely participate in the successful implementation of the resettlement program. Any complaints should be acknowledged, recorded, and addressed expeditiously in an agreed-upon fashion.[327]

(8) Performance bonds or resettlement insurance should be provided in case these efforts do not provide better livelihoods in the timeframe originally agreed upon.[328]

Reports produced as a result of several major multistakeholder processes, including the World Bank's EIR, the World Commission on Dams, and the MMSD project, advocated this approach. Many NGOs also strongly support the above principles.[329] Some companies, such as BHP, have found that implementing at least some aspects of such an approach can help avoid community unrest when a mine is developed.[330]

[323] International Alert (2005).
[324] Oxfam Community Aid Abroad (2004: 26).
[325] Ibid.
[326] International Alert (2005).
[327] International Alert (2005).
[328] World Bank (2003: 58).
[329] MMSD (2002: 403).
[330] *Dow Jones Newswires*, Dec. 14, 2004.

(9) All payments and expenses related to resettlement and compensation should be publicly disclosed to ensure accountability and transparency and to counter charges of corruption or misuse of funds.[331]

It is important that all financial aspects of resettlement be transparent. This protects companies and governments from accusations of misappropriation or mis-distribution of funds, and provides a basis for resolving grievances related to benefits accrued to resettled people.

I. Security Issues and Human Rights

Amnesty International has noted that "violence and instability in many countries today have led companies to defend their personnel and property by armed guards and/or by arrangements with state security forces. These arrangements have sometimes directly contributed to human rights violations, such as assaults involving excessive force used against peaceful demonstrators."[332] Amnesty further notes that "(i)n a number of countries, extractive industries have been linked to human rights abuses and civil conflict. Such abuses have been documented, for example, in cases where the army has been called in to guard extractive industries projects."[333]

Many of the world's mineral rich areas are also among the most politically unstable. Given the potential for social unrest associated with mining through social dislocation of mining-affected communities, mining projects can heighten existing tensions or provoke additional grievances.[334] Wealth derived from mining can also become a source of funds to fuel existing armed conflicts.[335] The connection between mining projects and heightened conflict around the world has been well documented.[336]

International human rights law relevant to mining addresses issues related to security arrangements and dealing with armed groups, including:

- Geneva Conventions and Additional Protocols I and II;
- UN Convention against Recruitment, Use, Financing and Training of Mercenaries; and
- International Convention for the Suppression of the Financing of Terrorism.[337]

International humanitarian law deals directly with issues arising out of conflict;[338] for example, the International Commission of the Red Cross has established seven basic rules of humanitarian law in armed conflict.

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[331] International Alert (2005).
[332] Amnesty International (1998: 3).
[333] Ibid.: 3.
[334] MMSD (2002: 192).
[335] Ibid.: 192.
[336] MMSD (2002: 206–07); World Bank (2003: 42). See also the many documented cases by Global Witness at www.globalwitness.org. Given the strong convergence between the operations of mining companies in conflict zones and increased violence as a result of mining operations, a strong argument is made by some that mining companies should avoid operating in conflict zones.
[337] International Alert (2005).

Finally, relevant codes of conduct, principles, and international standards with respect to this topic include the following:

- U.S./U.K. Voluntary Principles on Security and Human Rights;
- UN Draft Norms on the Responsibility of Transnational Corporations and Other Business Enterprises with Regard to Human Rights;
- UN Code of Conduct for Law Enforcement Officials; and
- Basic Principles on the Use of Force and Firearms by Law Enforcement Officials.[339]

The Norm

Based on testimonials from EIR consultations, including closed testimonials in the Asia-Pacific Region, Eastern Europe, and Central Asia, the authors of the EIR report noted that they received "many testimonies" concerning military, police, and private militia "involved in securing company control over territory and protecting their operations." The report also raised concerns that "[w]hen conflicts arise between corporations and local community interests, human rights abuses and violations are often reported."[340]

Many mining companies continue to operate in conflict zones. In such cases, companies often rely on private security forces, paramilitaries, and army personnel to secure their assets, resulting in potential and actual human rights abuses. Some companies recognize that private security forces create problems in ensuring good relations with affected communities. However, mining companies do not typically conduct independent assessments to gauge the impact of their operations on heightening existing conflicts and on the potential for creating new ones.[341]

Leading Edge Issues

The following positions are reinforced through international human rights, humanitarian, and refugee instruments and multistakeholder processes.[342] They are also supported by NGOs, some governments[343] and companies.[344]

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[338] International humanitarian law and international human rights law are complementary. Both seek to protect the individual, though they do so in different circumstances and in different ways. Humanitarian law applies in situations of armed conflict, whereas human rights, or at least some of them, protect the individual at all times, in war and peace alike. While the purpose of humanitarian law is to protect victims by endeavoring to limit the suffering caused by war, human rights law seeks to protect the individual and further his or her development. (See www.icrc.org/Web/Eng/siteeng0.nsf/html/section_ihl_and_human_rights?OpenDocument.)

[339] International Alert (2005).

[340] World Bank (2003: 42).

[341] Some argue that despite advances in academic research on these topics, these findings have not translated into best practice (International Alert 2005).

[342] Amnesty International (1998); MMSD (2002: 192–93); World Bank (2003); Oxfam Community Aid Abroad (2004); UN Code of Conduct for Law Enforcement Officials; UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials; UN Universal Declaration of Human Rights 1948; U.S./U.K. Voluntary Principles on Security and Human Rights; UDHR Article 3 ("Everyone has the right to life, liberty and security of person"); UDHR Article 5 ("No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment"); UDHR Article 9 ("No one shall be subjected to arbitrary arrest, detention or exile").

(1) Companies should conduct an independent peace and conflict impact assessment to assess the risk of provoking or exacerbating violent conflict through their operations. Companies should avoid investing in areas where the risk of violent conflict is high (e.g., in areas of civil war or armed conflict).[345]

Crisis prevention and conflict management is a relatively new focus in the field of development policy. Since the 1990s, international financial institutions (particularly the World Bank and the International Monetary Fund), OECD, and some governmental ministries working in development have considered the role that development assistance might play in crisis prevention and conflict management.[346] A task force set up by the OECD to consider these issues also examined the potential impact that development assistance may have on existing conflict and sought means to measure this impact through "peace and conflict impact assessment."[347] Since then, the Dutch, German, and Canadian governments have developed a practical tool—a "resource pack of guidelines" for peace and conflict impact assessment (PCIA).[348] Mining companies can adapt these guidelines when operating in politically unstable areas.

A risk assessment should be prepared to identify security risks the company and adjacent communities may face. Such an assessment should map the geographic extent of potential violence related to the mine's operations. It should evaluate the human rights records of personnel and outside contractors the mine may hire to protect itself (e.g., public security forces, paramilitaries, local or national law enforcement, or private security forces). The assessment should consider whether the local judiciary has the capacity to hold violators of international humanitarian law to account, analyze the potential causes of violence in the area of the mine, and the reputations of key leaders or decision makers in the area for adherence to human rights and international humanitarian law.[349]

(2) Companies operating in conflict zones or using armed security guards should abide by all major international human rights agreements, international humanitarian law, and refugee law. Security forces should never be used to address conflicts between the company and community women and men or the company's workers.

A broad range of international human rights and humanitarian instruments establish norms for respecting human rights and should guide corporate behavior when operating in conflict

[343] International Alert's 2005 publication, *Conflict-Sensitive Business Practice: Guidance for Extractive Industries,* which is referenced in this chapter came out of multistakeholder dialogues related to the Global Compact discussions and was sponsored by the Canadian, Swiss, U.K., and Swedish governments.
[344] Mining companies participated in the multistakeholder Global Compact process which informs some of these Leading Edge points.
[345] MMSD (2002: 195); see guidelines in International Alert (2005).
[346] OECD (1997).
[347] Klingebiel (2001); Bush (1998).
[348] See network.idrc.ca/en/ev-60789-201-1DO_TOPIC.html.
[349] International Alert (2005).

zones.[350] Companies should also endorse the UN Global Compact,[351] the Global Sullivan Principles, and the U.S./U.K. Voluntary Principles on Security and Human Rights.[352] These voluntary agreements commit signatories to abide by international human rights agreements, and to avoid using military forces in their operations. Companies operating in conflict zones or using armed security guards should also comply with Amnesty International's Human Rights Principles, the International Commission of the Red Cross's Code of Conduct on Humanitarian Assistance, and the OECD Guidelines for Multinational Enterprises. International humanitarian agreements such as the Geneva conventions and Rome statutes contain provisions that apply not only to states but also to individuals who may be working for a mining company.

(3) Companies should not operate in areas that require them to use military forces or excessive security in order to maintain their operations, as such conditions are likely to result in human rights abuses. Companies should also not pay for or provide logistical or other support for police or armed forces of the host country in return for security services at the mine.[353]

The presence of military forces employed by a mining company or enforcing the interests of a mining company is not conducive to ensuring that communities can voice their concerns regarding mining. In addition to being considered a core human right, freedom of association is necessary for communities to express their free, prior, and informed consent, or lack thereof. Socially responsible companies do not oppose peaceful demonstrations—and actively discourage government agencies from doing so.[354]

[350] Examples include the UN Universal Declaration on Human Rights 1948; International Covenant on Civil and Political Rights; International Covenant on Economic, Social and Cultural Rights; Covenant Against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment; UN Convention against the Recruitment, Use, Financing and Training of Mercenaries; International Convention for the Suppression of the Financing of Terrorism; Convention on the Rights of the Child; International Convention on the Protection of the Rights of All Migrant Workers; Geneva Conventions and Additional Protocols I and II; UN Draft Norms of the Responsibility of Transnational Corporations and Other Business Enterprises with Regard to Human Rights; UN Code of Conduct for Law Enforcement Officials and Basic Principles on the Use of Force and Firearms by Law.

[351] The Global Compact contains 10 principles in the areas of human rights, labor, the environment, and anti-corruption that enjoy universal consensus derived from the Universal Declaration of Human Rights, ILO Declaration on Fundamental Principles and Rights at Work, Rio Declaration on Environment and Development, UN Convention Against Corruption. See www.unglobalcompact.org.

[352] World Bank (2003: Vol I., p. 42); The "Voluntary Principles" were developed by the United States and the United Kingdom, later joined by the Netherlands and Norway. The goal was to develop guiding principles for security arrangements in a manner consistent with Human Rights (International Alert 2005).

[353] Oxfam Community Aid Abroad (2004: 26).

[354] Ibid.

(4) Companies should not adopt policies that create or intensify divisions in communities, including hiring traditional enemies of the local community or one faction of an internal division in the community as security guards.[355]

(5) Companies should cooperate with conflict prevention and conflict resolution NGOs to alleviate existing conflicts.[356]

(6) Companies should state in their contracts with security personnel the conditions under which force may be used and make these contracts public.[357]

Socially responsible companies do not rely on police or military action to solve problems in their relationships with communities.[358] All company security personnel should be trained to respect the rights of the local community.[359] To ensure that company security personnel do not violate the rights of local communities, all company security forces should be properly trained on human rights issues and adhere to the UN Code of Conduct for Law Enforcement Officials and the UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials. These guidelines set limitations on the use of firearms and require reporting and review whenever minimum force is used.[360]

Socially responsible companies screen the backgrounds of security staff candidates and decline to hire any person with a past of human rights abuses.[361] Companies should record and report any credible allegations of human rights abuses by their security forces to law enforcement authorities and press for investigations and action to prevent recurrence.[362] The security and safety of sources should be protected.[363]

(7) Companies should make sure that mining infrastructure and properties, such as vehicles or explosives, are not used to further conflict and that economic rents from mining are not used to provoke or prolong civil conflict or to support regimes that abuse human rights.[364]

Revenue from the extraction of high value mineral resources has fueled violent conflicts and civil wars in some developing countries. In other countries revenues from mining have been used to support repressive regimes.[365] This issue was recognized in the World Bank's EIR[366] and is a source of concern for most NGOs, governments, and some financial institutions.[367] In

[355] Ibid.
[356] MMSD (2002: 195).
[357] Amnesty International (1998).
[358] Oxfam Community Aid Abroad (2004).
[359] Amnesty International (1998).
[360] Ibid.
[361] Ibid.
[362] International Alert (2005).
[363] Ibid.
[364] Ibid.
[365] Burma is an example.
[366] World Bank (2003: Vol. I, p. 9)
[367] Attempts to address this issue include the OECD Convention Combating Bribery of Foreign Public Officials in International Business Transactions, UN Convention Against Corruption, UN Global Compact, IMF Code of Good

recognition of this problem, the U.K. government and several large extractive industry companies signed the Extractive Industries Transparency Initiative (EITI), which commits signatories to disclose payments to governments (or received by companies) as a result of extractive industry development. Supported by a broad coalition of human rights and governance NGOs, the Publish What You Pay campaign encourages companies and governments to sign on to and implement EITI.[368] Companies that have not already done so should sign the EITI agreement. Companies should disclose disaggregated statistics on payments they make to governments so that civil society groups and affected communities can better determine how resource rents have been disbursed (see Chapter 4 on Governance).

Practices on Transparency, Wolfsberg Principles, Second EU Money Laundering Directive, OECD Guidelines for Multinational Enterprises, Basel Committee for Banking Supervisions, Equator Principles, and the OAS Inter-American Convention Against Corruption.

[368] The Publish What You Pay coalition of over 280 NGOs worldwide calls for the mandatory disclosure of the payments made by oil, gas, and mining companies to all governments for the extraction of natural resources. This is a necessary first step toward a more accountable system for the management of revenues in resource-rich developing countries. See www.publishwhatyoupay.org/english/.

CHAPTER 4: ENSURING GOOD GOVERNANCE

I. Introduction

Strong environmental and social standards and regulations are an important condition for responsible mining, but the existence of such rules is insufficient to ensure that companies operate by the best possible standards. According to the World Bank's Extractive Industries Review (EIR), investment in extractive industry sectors should only occur if the right governance conditions and safeguards are in place.[369] The Bank's internal evaluations have also highlighted the need for good governance in the extractive industry sectors.[370]

Chapters 2 and 3 of this framework have already addressed key Leading Edge issues related to governance at the project-specific scale, such as the need for monitoring and oversight to ensure that operators abide by their commitments and existing regulations (Section 2.II.M); the opportunity for civil society to actively participate in the development of a mine (Section 3.II.B); civil society access to adequate and appropriate information about future and ongoing mine projects (Section 3.II.C); and civil society access to judicial redress in the event that there are disagreements with the mine operator (Section 3.II.D and 3.II.G). This chapter examines governance issues at a national or corporate scale, such as the transparency with which companies and governments acknowledge revenue payments, and the degree to which companies report on and can be held accountable for progress made against stated commitments.

II. Reporting and Accountability

The degree to which companies can be held accountable for commitments they make is an important safeguard for ensuring that mining occurs in an environmentally and socially responsible manner. Many companies have understood this to encompass a commitment to report in annual reports or corporate sustainability reports, but true accountability requires the ability for outside stakeholders to evaluate a company's progress toward meeting its commitments. The following section examines Leading Edge issues for both reporting against stated corporate commitments and accountability for achieving on-the-ground progress.

A. Reporting

The Norm

A company's annual sustainability report is often the key tool through which progress on corporate commitments is communicated to external stakeholders. Many major mining

[369] World Bank (2003).
[370] Liebenthal et al. (2005).

companies and international financial institutions produce annual sustainability reports, which seek to document progress on a company's stated sustainability goals. Private banks are just beginning to report on environmental and social sustainability issues related to their investments.

Leading Edge Issues

(1) Companies should report their progress toward achieving concrete environmental and social goals through specific and measurable indicators that can be independently verified. Such information should be disaggregated at a project or site-specific level.

There is generally broad support for more detailed and verifiable reporting by companies so that stakeholders can assess progress toward achieving specific environmental and social goals. Corporate reporting in the mining sector has varied in quality and no common framework has been developed. The Global Reporting Initiative (GRI) advocates a unified approach to sustainability reporting across sectors through its Sustainability Reporting Guidelines, which were last updated in 2002. All GRI reporting frameworks are developed on the basis of 11 core principles (see Box 1) and GRI develops supplemental reporting guidelines by sector.

Box 1: Principles for Sustainability Reporting

The Draft GRI Metals and Mining Sector Supplement includes core principles for corporate sustainability reports. These broad principles are meant to form the framework for all corporate sustainability reports, inform decisions about what to report, ensure quality and reliability of reports, and provide timely access to reports.

1. *Transparency*: Corporations should disclose the procedures, methodologies, and assumptions used in preparing their reports.
2. *Inclusiveness*: Companies should regularly engage stakeholders to ensure the quality of reports.
3. *Auditability*: Data should be compiled and disclosed in such a way as to enable external audits.
4. *Completeness*: All data material for evaluating the company's economic, environmental, and social performance should be reported.
5. *Relevance*: Data that reach the threshold for importance should be reported.
6. *Sustainability context:* Companies should seek to evaluate their performance in the wider social and ecological context of their operations, where such reporting adds meaning to the data reported.
7. *Accuracy*: Companies should strive to achieve a greater degree of exactness with a minimal margin of error in the data reported so that users can interpret the data with a high degree of confidence.
8. *Neutrality*: Reports should avoid bias in data selection and presentation and should strive for balance when evaluating a company's performance.
9. *Comparability*: The boundary and scope of the reports should be consistent to allow

comparisons over time.
10. *Clarity*: Companies should seek to provide information that is useful for the greatest number of stakeholders while still maintaining a suitable level of detail.
11. *Timeliness*: Reports should be produced on a regular basis that suits the needs of stakeholders.

Source: GRI, "An Abridged Version of the 2002 Sustainability Reporting Guidelines Integrated with the Draft Mining and Metals Sector Supplement," August, 2004, pp. 10–11.

Together with the ICMM, the GRI produced a supplement for the mining sector, which was released in February 2005. This supplement tailors the GRI framework for mining companies to use in corporate social responsibility reports and includes the following economic, environmental, and social core indicators:

Economic
- Percentage of workforce employed from the local community;
- Percentage of goods purchased locally;
- Compensation payments;
- Investment in public infrastructure; and
- Value added at the country level.

Environmental
- Waste management practices;
- Management of fugitive emissions (e.g., dust), as well as emissions from mobile and stationary sources;
- Production of site-specific waste (categorized as hazardous and non-hazardous waste);
- Significant environmental incidents, air emissions, energy use, potential for metal leaching and acid mine drainage, land disturbed and rehabilitated, and incidents affecting indigenous peoples;
- Amount of land owned, leased, and managed for extractive use, including amount of land disturbed and rehabilitated;
- Sites with biodiversity management plans in place; and
- Policies addressing materials stewardship, including eco-efficiency and materials stewardship.

Social
- Demonstration that corporate policies for security personnel support human rights principles;
- Community economic development plans, including source of community income, access to services, access to capital and natural resources, and access to occupational training;
- Coordination with agencies involved in livelihood issues (e.g., poverty alleviation);
- Process for identifying and protecting natural resources critical for maintaining community livelihoods (e.g., water, plants and wildlife);
- Procedures for identifying community land and customary rights, as well as grievance mechanisms used;
- Number of new cases of occupational diseases by type and programs to prevent disease;

- Approaches to preparing for emergency situations involving communities;
- Resettlement policies and activities;
- Percentage of sites with closure plans covering social, economic, and environmental aspects; and
- Programs for artisanal and small-scale miners.

Earthworks (an environmental NGO) has advocated for inclusion of more mine-specific reporting within the GRI metal sector guidelines.[371] Reporting detailed information broken down by project is useful for outside stakeholders to gauge whether companies are meeting sustainability commitments. However, the GRI framework was designed for overall corporate sustainability reporting rather than provision of information at a site- or project-specific level. Because the indicators are not further disaggregated, the mining sector supplement is limited in its ability to inform stakeholders whether companies are operating in an environmentally and socially responsible manner. Some companies already provide project-specific annual reports with such information; e.g., sustainability reports for each of Placer Dome's mines are available on the company's Web site.

(2) Financial institutions should report the environmental and social risks associated with their lending in the mining sector.

Although most public and increasingly some private financial institutions are producing annual sustainability reports, there are currently no standardized reporting protocols for this sector. The GRI is in the process of developing a sector supplement for the financial sector, much as it has done for the metals and mining sector.

Public financial institutions are currently leading the drive toward further disclosure of environmental and social risks associated with their lending practices. Of the 15 export credit agencies in OECD countries, nearly all disclose their environmental policies on their Web sites and approximately two-thirds provide at least some information on their most sensitive projects.[372] Multilateral and regional development banks (e.g., World Bank, Inter-American Development Bank, Asian Development Bank) also publicly report on proposed and approved sensitive projects either through their Web sites or in annual reports.

Many financial institutions are not reporting the environmental and social risks associated with their lending activities. The Equator Principles do not currently include a reporting requirement for signatories to report on progress implementing the principles. As a result, Equator Principle Banks have yet to follow the lead of public financial institutions by reporting proposed and approved financing for sensitive projects (especially mining). BankTrack, a global network of activist NGOs has recommended that Equator Banks report their performance in implementing the principles so that banks, NGOs, and other stakeholders can more easily track progress toward sustainability goals.[373]

[371] P. Sampat and A. Septoff, "Comments to GRI Mining Sector Supplement," submitted on behalf of Earthworks, August 13, 2004.
[372] F. Reilly-King. "OECD ECA Comparative Table," prepared for Halifax Initiative, June 2004.
[373] BankTrack (2004: 43).

Public financial institutions tend to report mostly aggregate information on projects and typically do not track or report on the lending activities of their financial intermediaries. In many cases, public financial institutions only report basic information on approved projects, rather than those being considered in the pipeline. In addition, the proportion of public financial institutions' portfolio that is managed by financial intermediaries (such as national banks) is significant.[374]

Both public and private financial institutions will need to report much greater detail on their project and portfolio investing decisions in the mining sector if they aim to demonstrate progress toward poverty alleviation or sustainability goals.

(3) Companies should report money paid to political parties.

The ability to demonstrate that a company does not seek to unfairly influence a government's environmental and social policies is an important part of establishing good corporate governance. NGOs have called on corporations to disclose payments made to political parties and other institutions with a political affiliation.[375] Indeed, U.S. law stipulates that corporations must report contributions to political parties. The Minerals Council of Australia likewise recommends that its member report financial contributions to political parties.[376]

B. Accountability

Whether companies can be held accountable for their commitments depends on more than the progress they report in their annual reports. NGOs are increasingly calling on the private sector to adopt independent accountability mechanisms to allow communities redress when projects do not go as planned.

The Norm

Most mining companies prefer self-auditing or voluntary reporting that addresses the concerns of stakeholders while allowing companies to maintain control of monitoring and reporting functions. However, there is growing recognition among some companies that stakeholders should have access to an open and transparent grievance mechanism. For instance, the Minerals Council of Australia recommends that its members maintain a complaints register and publicly report complaints received, as well as resolution of complaints.[377]

[374] Over the last decade, the proportion of public financial institution lending that went to financial intermediaries has fluctuated between 30 and 50 percent of lending portfolios (Wright 2004).
[375] MPC (2001: 23); Oxfam Community Aid Abroad (2004).
[376] Minerals Council of Australia (2004: 6).
[377] Minerals Council of Australia (2004: 27).

Leading Edge Issues

(1) An independent dispute resolution mechanism should be established so that communities can count on fair resolution of concerns they may have with mining companies.

The final EIR report called for an independent dispute resolution mechanism at the local level to resolve community concerns regarding mining projects.[378] Several international financial institutions have instituted independent accountability mechanisms, including ombudsman functions to review community complaints with respect to World Bank–funded projects. The World Bank Group has instituted the most comprehensive suite of dispute resolution mechanisms, incorporating compliance, ombudsman, and evaluation functions in each of its three units (International Bank for Reconstruction and Development/International Development Agency, International Finance Corporation, and Multilateral Investment Guarantee Agency) (see Box 2).

Box 2: World Bank Group Accountability Mechanisms

The World Bank Group has the longest history among international financial institutions in implementing independent accountability in its projects. The Bank's Inspection Panel allows affected communities to lodge complaints if they feel that World Bank policies have been violated in Bank projects. In the late 1990s the IFC established a similar mechanism for IFC-sponsored projects, and the Multilateral Investment Guarantee Agency's ombudsman function was put in place shortly thereafter. Key features of these offices include the following:

- *Support for affected communities*: Only stakeholders who can claim to be directly affected by a World Bank Group project may file a complaint. In rare cases, an outside NGO or representative may file a complaint on behalf of communities.
- *Line reporting to senior management*: The ombudsman's office operates independently from loan officers and reports directly to the presidents and senior vice presidents of the World Bank Group.
- *Investigation of complaints by ombudsman office staff*: Once a complaint has been made, the ombudsman's office investigates through field visits and interviews.
- *Transparent reporting on open cases*: Information on open cases is posted on World Bank Group Web sites as well as in annual reports. Complainants are notified in writing of decisions made regarding their complaints. In many cases, the final decision is also posted on the Web site.

Oxfam Australia recommends that a similar approach be established in the mining sector, incorporating the following key elements:[379]

[378] World Bank (2003: 67).
[379] Oxfam Community Aid Abroad (2004: 16).

- *Standards*: Universally accepted human rights standards should comprise the framework of the mechanism.
- *Enforcement*: The mechanism should be legally enforceable through sanctions against mining companies, their suppliers, directors, and employees.
- *Independence*: Dispute resolution should be independent from companies, industry associations, and their contractors.
- *Funding*: Complainants should have access to sufficient financial resources to file complaints. Funding sources should be transparent and managed through an independent fund controlled by the dispute resolution body.
- *Accessibility*: Information should be accessible to all affected communities in the appropriate languages.
- *Accountability and transparency*: Investigation results should be publicly disclosed and the mechanism should be subject to periodic and independent monitoring to ensure its impartiality and effectiveness.

In the absence of such a mechanism, Oxfam Australia created a mining ombudsman function in 2000. The ombudsman follows and reports on community complaints related to Australian mining companies operating in developing countries. Through this function, Oxfam Australia also helps communities understand their rights with respect to mining projects and aims to ensure that the Australian mining industry respects the rights of communities wherever it operates.[380]

Some NGOs have called on the Equator Principle Banks to establish an independent accountability mechanism to ensure compliance with the principles, similar to that already in place at many public financial institutions. Such a mechanism would be independent from the signatories, transparent in its review of signatory compliance, and accessible to communities affected by projects supported by the signatories. As envisioned by activist groups in the BankTrack coalition, this mechanism would consist of a compliance function, an ombudsman, and ongoing evaluations of the Equator Principle Banks' progress toward implementation of the principles.[381]

III. Transparency and Corporate Governance

The World Bank, some extractive industry companies, and some governments have recently acknowledged the need for greater transparency in the way the private sector conducts its business at a national scale, especially in developing countries. Closely related to issues of national governance are the ethics by which a company operates—corporate governance—including making sustainability commitments and establishing mechanisms to track and improve performance. This section identifies norms and cutting edge developments that increase transparency in revenue payments and provide greater accountability in the global mining sector. Although some initiatives apply more broadly to all development activities, those highlighted below are of particular relevance for the mining sector.

[380] Oxfam Community Aid Abroad (2004).
[381] BankTrack (2004: 41–43).

A. Transparency

Recent international initiatives have identified the need for governments and companies to be transparent in their contracts, payments, and other bilateral transactions. The MMSD report identified corruption in the mining sector as a major obstacle to the equitable distribution of mineral wealth, noting that there appears to be a strong correlation between high levels of corruption and countries exhibiting a low level of human development.[382]

The Norm

There is growing consensus among all stakeholders that transparency in revenue payments is essential to ensuring that the benefits from extractive activities result in equitable development. This is also supported by binding conventions and national law in developed countries that commits companies and governments to report payments made while operating overseas. Such legal instruments include the following:

- U.S. Foreign Corrupt Practices Act: Signed into law in 1997, this law criminalizes bribery of foreign officials.
- Inter-American Convention on Corruption (1996): Signed by all 21 members of the Organization of American States, this convention establishes that government officials may not engage in receiving payments or gifts of any kind for their services, and that each state is responsible for ensuring that its citizens do not engage in corrupt practices overseas.
- Convention on Combating Bribery of Foreign Public Officials (1997): This agreement, signed by 29 members of the OECD commits each country to take responsibility for the activities of domestic companies overseas. Companies are required to maintain accounting records and undergo periodic audits.

In recognition of these binding agreements, international financial institutions, governments, and companies have implemented safeguards to combat corruption. For example, the World Bank and International Monetary Fund impose sanctions on countries and governments known for engaging in corruption.[383] The Asian Development Bank may impose sanctions on any company found to have engaged in corrupt practices.[384] The ICMM requires members to support such practices and not engage in bribery or corrupt practices. The Minerals Council of Australia recommends that signatories to its "Enduring Value" principles institute systems to manage allegations of business misconduct.[385]

[382] MMSD (2002: 184).
[383] MMSD (2002: 186).
[384] ADB (2003).
[385] Minerals Council of Australia (2004: 4).

The Leading Edge

(1) Companies should report payments made to central governments, state or regional governments, and local government and authorities, and these payments should be compared to revenues governments receive, as well as to government budgets.

As noted earlier, the U.K. government recently launched the Extractive Industries Transparency Initiative (EITI), which seeks to address corruption in the extractive industries sectors by encouraging countries and governments to report revenues received or paid as a result of extractive industry development (see Box 3).

Box 3: Combating Corruption through Increased Revenue Transparency

At the World Summit on Sustainable Development in Johannesburg, the U.K. government announced a new partnership with extractive industry companies to combat corruption, known as the Extractive Industries Transparency Initiative (EITI). This initiative had its roots in an NGO campaign, known as Publish What You Pay, which sought to require extractive industry companies to publish revenue payments as a condition for being listed on public stock exchanges.

Twenty governments, 18 extractive companies, 3 major industry associations, the World Bank, members of the NGO Publish What You Pay campaign, and nearly 60 investment institutions support the EITI. To date, the EITI has developed reporting guidelines for governments and companies. Nigeria, Azerbaijan, and Ghana have either initiated working groups or reported revenue payments.

Source: First Edition of EITI Newsletter and related documents on the EITI Web site, www2.dfid.gov.uk/news/files/extractiveindustries.asp.

Some differences of opinion remain regarding how to enhance revenue transparency, including the level of detail at which revenues should be disclosed. Signatories of the EITI prefer an aggregate reporting framework, in which only the national and sector-specific payments are made public. NGOs, on the other hand, consider that such information is not sufficiently detailed to understand how revenues are disbursed within countries, nor which corporations can be held accountable for irregular payment practices. In a position statement released in June 2003, ICMM publicly supported the EITI and called on governments to disclose how payments from extractive industry activities are distributed among national and regional priorities.[386] Reporting disaggregated payments would go further in ensuring the accountability of companies and governments with regard to revenues received from mining. In addition, understanding how governments budget and distribute payments from extractive industry activity would stimulate debate among stakeholders regarding the appropriate distribution of mining benefits, thereby contributing to greater government accountability.

[386] ICMM (2003).

B. Corporate Governance

Corporate governance can be distinguished from governance in the public sector in that it aims to address actions within mining companies rather than between companies and other actors (e.g., countries and financial institutions). Good corporate governance is necessary to ensure that companies establish commitments for environmentally and socially responsible behavior, and publicly report progress made toward achieving such commitments. Implementation of good management systems can help companies reduce environmental and social costs.

The Norm

Most companies have instituted some form of corporate ethical and governance policy endorsed by their board of directors. ICMM requires its members to "integrate sustainable development principles into company policies and practices."[387] Most companies also incorporate risk management systems, such as ISO 14001, to integrate a range of environmental, health, and safety issues in their operations. Indeed, certification to ISO 14001 standards may soon become a contractual requirement for companies operating in the United States and in European Union countries.

Leading Edge Issues

Companies differ in their approach to implementing corporate governance principles. Environmental management certification systems such as ISO 14001 only speak to the quality of a company's environmental management procedures at the facility level, but the standards are designed to be flexible and open to interpretation on a case-by-case basis. The absence of a minimum set of good governance standards has led NGOs and others in civil society to question the seriousness with which some companies approach corporate governance issues.

(1) Corporate governance policies should be made public, implemented, and independently evaluated.

Although many companies publish their governance policies in annual reports or on their Web sites, not all of them document how these policies are implemented and fewer still use independent auditors to evaluate progress in implementing stated sustainability goals. The Minerals Council of Australia, the Mining Association of Canada, and ICMM acknowledge the need for verification of members' performance against their respective codes and principles, but companies stop short of recognizing that such evaluation should be conducted independently of the mining company or industry association. Oxfam Australia has called for mining companies to incorporate independent, third-party evaluation or certification of their compliance with stated sustainability principles.[388] Such independent verification mechanisms can provide a measure of

[387] ICMM (2003: Principle 2).
[388] Oxfam Community Aid Abroad (2004: 13–14); Solomon (2003b).

assurance to external stakeholders that companies are implementing stated commitments; they are generally considered more credible than first-party or second-party verification.[389]

Most multilateral financial institutions have established operations evaluation departments, which track the effectiveness of lending and financial activities against the stated mandates of their respective institutions. Such departments operate independently of management and report directly to the financial institution's board of directors. For the most part, reports prepared by these offices are publicly available to external stakeholders.

(2) Companies should encourage adoption of sustainability concepts by employees in the workplace.

Implementation of corporate environmental and social standards requires that employees throughout the corporation have bought into the new standards and are working to implement them on the ground.[390] There is considerable support for this issue within the mining industry[391] and among NGOs.[392] Although the issue of training employees to adopt commitments is generally accepted, companies have not universally adopted the concept and some NGOs call for more comprehensive training on compliance with human and worker's rights.[393] The Australian Minerals Council encourages its members to provide training to its employees to minimize harassment, uphold human rights, and respect the cultures and customs of affected parties.[394]

(3) Companies should review contractor practices to ensure compliance with sustainability principles.

Companies can be exposed to negative publicity if they are associated with contractors or suppliers whose business practices are not socially and environmentally responsible. Principle 2 of ICMM's Sustainability Principles commits members to ensuring that contractors abide by the industry association's stated principles.[395] The Minerals Council of Australia encourages its members to implement procurement policies that encourage suppliers to adopt sustainability principles.[396] Some companies have begun to develop their own criteria for ensuring that suppliers meet their own corporate codes of conduct.[397] NGOs have called on the mining industry to enforce compliance of its business partners with social and human rights standards by making such standards part of contractual obligations companies establish with their contractors.[398]

[389] MMSD (2002: 351).
[390] MMSD (2002: 397).
[391] ICMM (2003: Principle 2); Minerals Council of Australia (2004).
[392] Oxfam Community Aid Abroad (2004: 31); Young and Septoff (2002: 2).
[393] Oxfam Community Aid Abroad (2004); Young and Septoff (2002).
[394] Minerals Council of Australia (2004: 10).
[395] ICMM (2003, Principle 2).
[396] Minerals Council of Australia (2004: 9).
[397] DuPont has been developing sustainability criteria for its titanium dioxide suppliers.
[398] Young and Septoff (2002: 12).

APPENDIX A.1: VISION STATEMENT FOR RESPONSIBLE MINERALS DIALOGUE GROUP

Vision Statement

Responsible Sourcing, Investing and Insuring in the Minerals Sector

(Final—23 January 2004)

Representatives from corporations, nonprofit organizations and philanthropic foundations recently initiated a dialogue aimed at improving the performance of the mining industry on environmental, social and human rights issues. A statement embodying their vision follows:

Society uses metals and other minerals for a wide variety of purposes, and it is in society's interest to make sure that they are obtained, produced and used in environmentally and socially responsible ways. This includes respect for recognized codes of human rights, including workers' rights and indigenous peoples' rights.

We believe that natural resources should be developed in a manner that respects the needs of current and future generations. We seek to protect those places where mining should not occur. We recognize the societal benefits that accrue from the use of recycled content and existing above-ground sources, and support their greater use. We also recognize the potential risks associated with sourcing minerals from non-responsible sources.

We seek to develop and promote solutions to a number of critical issues relevant to mineral extraction and use, recognizing that as we move from vision to solutions greater definition and specificity will be necessary. These issues include:

- protecting natural water bodies from mine tailings and wastes, including the risks associated with long-term water treatment and with the chemicals used in mineral extraction and processing;
- respecting the need to preserve ecologically and culturally significant areas;
- establishing environmental protection and management standards for operating mines, including comprehensive closure plans and full funding for cleanup as a pre-condition of mining;
- developing protocols and implementing practices for informed community decision-making that respect the rights and interests of affected communities, including independent socio-economic and environmental impact assessments and audits;

- adhering to human rights protocols and standards, including workers' rights and indigenous peoples' rights; and
- promoting the use of recycled content and life-cycle analysis.

Access to information on the impacts of mining and the life-cycle of materials made from mined products is essential to informed decision-making and to our ability to realize our vision. Therefore, we recognize that central to establishing these responsible practices is the creation of information systems to help track the sources of metals and other minerals, and to monitor extraction, transportation, refining and disposal practices throughout the life-cycle of the mineral.

While we acknowledge the complexity of the chain of custody for minerals, we recognize the need for investors, insurers, retailers, consumers and others to know the origins of these minerals and to understand the associated environmental, economic and social impacts. This understanding and information will provide all involved with the ability to assess mining projects and choose minerals and mineral products that have been sourced and produced responsibly.

APPENDIX A.2: INTERNATIONAL INSTRUMENTS AND LEGAL PRECEDENTS REGARDING INDIGENOUS SURFACE AND SUBSURFACE RIGHTS TO LAND AND NATURAL RESOURCES

There are a number of international instruments that specifically define indigenous peoples' rights with respect to land and natural resources. In particular:

> *Indigenous peoples have the right to own, develop, control and use the lands and territories, including the total environment of the lands, air, water, coastal sea, sea-ice, flora and fauna and other resources which they have traditionally owned or otherwise occupied or used. This includes the right to the full recognition of their laws and customs, land-tenure systems and institutions for the development and management of resources, and the right to effective measures by states to prevent any interference with, alienation or encroachment upon these rights.* (Article 26 of the UN Draft Declaration on the Rights of Indigenous Peoples 1994)[399]

The Organization of American States has declared that:

> *1. Indigenous peoples have the right to the legal recognition of various and specific forms of control, ownership and enjoyment of territories and property.*
> *2. Indigenous peoples have the right to the recognition of their property and ownership rights with respect to lands and territories they have historically occupied, as well as to the use of those to which they have historically had access for their traditional activities and livelihood.*
> *3. […]*
> 4. *The rights of indigenous peoples to existing natural resources on their lands must be especially protected. These rights include the right to the use, management and conservation of such resources.* (The OAS Proposed Declaration [Article XVIII])

The International Labour Organization (ILO) was the first international body to define the social and economic rights of indigenous peoples dating back to its creation in 1919. ILO Convention No. 169 refers specifically to indigenous peoples' rights to land and natural resources:[400]

> *The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognized.* (Article 14,1)

> *Governments shall take steps as necessary to identify the lands which the peoples concerned traditionally occupy, and to guarantee effective protection of their rights of ownership and possession.* (Article 14, 2)

[399] E/CN.4/SUB.2/1994/2/Add.1 (1994).
[400] C169 Indigenous and Tribal People Convention, 1989.

> *The rights of the peoples concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources.* (Article 15)

These rights are also recognized in jurisprudence interpreting state obligations under human rights instruments. With respect to states, the UN Human Rights Committee is charged with monitoring compliance with the International Covenant on Civil and Political Rights (ICCPR). Recently the Human Rights Committee (HRC) applied article 1 of the ICCPR to indigenous peoples in its comments on Canada's fourth periodic report. Referring specifically to Canada's aboriginal people HRC stated:

> *With reference to the conclusion by the [Royal Commission on Aboriginal Peoples] that without a greater share of lands and resources institutions of aboriginal self-government will fail, the Committee emphasizes that the right to self-determination requires, inter alia, that all peoples must be able to freely dispose of their natural wealth and resources and that they may not be deprived of their own means of subsistence (article 1(2)). (…) The Committee also recommends that the practice of extinguishing inherent aboriginal rights be abandoned as incompatible with article 1 of the Covenant.*[401]

Article 27[402] of the ICCPR[403] protects linguistic, cultural and religious rights and, in the case of indigenous peoples, includes, among others, land and resource, subsistence and participation rights.[404] The Human Rights Committee elaborated upon its interpretation of article 27 in 1994, stating that:

> *With regard to the exercise of the cultural rights protected under Article 27, the committee observes that culture manifests itself in many forms, including a particular way of life associated with the use of land resources, specifically in the case of indigenous peoples. That right may include such traditional activities as fishing or hunting and the right to live in reserves protected by law. The enjoyment of those rights may require positive legal measures of protection and*

[401] Concluding Observations of the Human Rights Committee: Canada 07/04/99, para. 8. The HRC reached similar conclusions regarding indigenous rights to self-determination and to their resources in the reports of Mexico and Norway (1999) and of Australia (2000). In Tebtebba and Forest Peoples Programme (2003: 38).

[402] Article 27 reads: "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of the group, to enjoy their own culture, to profess and practice their own religion, or to use their own language."

[403] The ICCPR has been ratified by 149 States as of December 2002.

[404] Bernard Ominayak, Chief of the Lubicon Lake Band vs. Canada, *Report of the Human Rights Committee*, 45 UN GAOR Supp. (No. 43), UN Doc. A/45/40, vol. 2 (1990), 1. See also Kitok vs. Sweden, *Report of the Human Rights Committee*, 43 UN GAOR Supp. (No. 40) UN Doc. A/43/40; Lovelace vs. Canada (No. 24/1977), *Report of the Human Rights Committee*, 36 UN GAOR Supp. (No. 40) 166, UN Doc. A/36/40 (1981); I. Lansman et al. vs. Finland (Communication No. 511/1992), *supra* note 4; J. Lansman et al. vs. Finland (Communication No. 671/1995), UN Doc. CCPR/C/58/D/671/1995; and General Comment No. 23 (50) (art. 27), adopted by the Human Rights Committee at its 1314th meeting (50th session), 6 April 1994, UN Doc. CCPR/C/21/Rev.1/Add.5. Although not decided under article 27, see also Hopu v. France, Communication No. 549/1993: France, 29/12/97, UN Doc. CCPR/C/60/D/549/1993/Rev.1, 29 December 1997.

> *measures to ensure the effective participation of members of minority communities in decisions which affect them.*[405]

In July 2000, the HRC added that article 27 requires that "necessary steps should be taken to restore and protect the titles and interests of indigenous persons in their native lands …" and; "securing continuation and sustainability of traditional forms of economy of indigenous minorities (hunting, fishing and gathering), and protection of sites of religious or cultural significance for such minorities … must be protected under article 27…."[406] Article 30 of the UN Convention on the Rights of the Child contains almost identical language to that found in ICCPR article 27; therefore, the points made above are also relevant to the rights of indigenous children under that instrument.[407] This was confirmed by the Committee on the Rights of the Child in September 2003, which acknowledged "that, as stated in the Human Rights Committee's General Comment No. 23 on the rights of minorities (1994) and in ILO Convention 169, the enjoyment of the rights under article 30, in particular the right to enjoy one's culture, may consist of a way of life which is closely associated with territory and use of its resources. This may particularly be true of members of indigenous communities constituting a minority."[408]

The Committee on Economic, Social and Cultural Rights has highlighted state obligations to recognize and respect indigenous peoples' land and resource rights under the International Covenant on Economic, Social and Cultural Rights (ICESCR).[409] In 1998, the Committee recommended that states "take concrete and urgent steps to restore and respect an Aboriginal land and resource base adequate to achieve a sustainable Aboriginal economy and culture."[410]

Under the Convention on the Elimination of All Forms of Racial Discrimination (CERD) state parties are obligated to recognize, respect and guarantee the right "to own property alone as well as in association with others" and the right to inherit property, without discrimination.[411] In its 1997 *General Recommendation on Indigenous Peoples*, the UN Committee on the Elimination of Racial Discrimination contextualized these rights to indigenous peoples. In particular, the Committee called upon states-parties to "recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources and, where they have been deprived of their lands and territories traditionally owned or otherwise inhabited or used without their free and informed consent, to take steps to return these lands and territories."[412]

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[405] *General Comment No. 23 (50) (art. 27), supra* note 18, at 3.
[406] *Concluding observations of the Human Rights Committee: Australia, supra* note 15, at paras. 10 and 11.
[407] The CRC has been ratified by 191 States as of December 2002.
[408] *Day of General Discussion on the Rights of Indigenous Children, Recommendations*. Committee on the Rights of the Child, 34th Session, Sept. 15–Oct. 3, 2003, at para. 4.
[409] The ICESCR has been ratified by 146 states as of December 2002.
[410] *Concluding observations of the Committee on Economic, Social and Cultural Rights: Canada. 10/12/98.* E/C.12/1/Add.31, at para. 43.
[411] CERD has been ratified by 170 States as of November 2004.
[412] UN Committee on the Elimination of Racial Discrimination, *General Recommendation XXIII (51) concerning Indigenous Peoples.* Adopted at the Committee's 1235th meeting, 18 August 1997. UN Doc. CERD/C/51/Misc.13/Rev.4, at para. 4.

Similar conclusions about indigenous peoples' rights have been reached under Inter-American human rights instruments, specifically the American Convention on Human Rights (1969) and the American Declaration on the Rights and Duties of Man (1948). It is well established in the Inter-American system that indigenous peoples have been historically discriminated against and disadvantaged and therefore, that special measures and protections are required if they are to enjoy equal protection of the law and the full enjoyment of other human rights. These special measures include protections for indigenous languages, cultures, economies, ecosystems and natural resource base, religious practices, "ancestral and communal lands," and the establishment of an institutional order that facilitates indigenous participation through their freely chosen representatives.[413]

The Inter-American Court on Human Rights in the *The Mayagna (Sumo) Indigenous Community of Awas Tingni v. the Republic of Nicaragua* confirmed that indigenous peoples' territorial rights arise from traditional occupation and use and indigenous forms of tenure, not from grants, recognition, or registration by the state. The latter simply confirm and guarantee preexisting rights. In its judgment, issued in September 2001, the Court held that "[a]s a product of custom, possession of land should suffice to entitle indigenous communities without title to their land to obtain official recognition and registration of their rights of ownership."[414] It ordered, among others, that "the State must adopt measures of a legislative, administrative, and whatever other character necessary to create an effective mechanism for official delimitation, demarcation, and titling of the indigenous communities' properties, in accordance with the customary law, values, usage, and customs of these communities."[415]

While the preceding norms are primarily binding on states, they are nonetheless relevant to corporate actions because they form part of the legal environment in which corporations must operate. Additionally, states are required by the relevant treaties to implement and protect the rights found therein and ensure that effective remedies are in place to allow their enforcement by injured parties. The obligation to protect in this sense includes the obligation to take reasonable preventative measures against violations and to take legal action against third parties, including corporations, that violate the rights of indigenous peoples. These obligations are relevant even if the state in question has failed to incorporate the rights or associated remedies into its domestic law; the state, and by extension corporations, may still be held liable for violations.

A number of non-binding standards or statements of best practice also address indigenous peoples' rights to lands, territories, and resources traditionally owned or otherwise occupied and used as well as add to legal consensus on the nature of these rights—in some cases these standards merely reflect legal consensus and are simply restatements of binding obligations. On December 5–7, 2001, the United Nations Office of the High Commissioner for Human Rights

[413] See, among others, *Report on the Situation of Human Rights of a Segment of the Nicaraguan Population of Miskito Origin*, OEA/Ser.L/V/II.62, doc.26. (1984), at 76–78, 81; *Report on the Situation of Human Rights in Ecuador, supra* note 5, at 103–04; *Case 7615 (Brazil)*, OEA/Ser.L/V/II.66, doc. 10 rev. 1 (1985), at 24, 31; and *Third Report on the Situation of Human Rights in The Republic of Guatemala*, OEA/Ser.l/V/II. 67, doc. 9 (1986), at 114.

[414] Judgment of the Inter-American Court of Human Rights in the case of The Mayagna (Sumo) Indigenous Community of Awas Tingni v. the Republic of Nicaragua, issued 31 August 2001, *Inter-Am. Court on Human Rights, Series C, No. 79* (2001), at para. 151.

[415] Id., at para. 164.

convened a workshop in Geneva to discuss the relationship among indigenous peoples, human rights, and resource extraction. Some important outcomes of this meeting included an affirmation of indigenous peoples' rights to their lands, territories, and natural resources, and the right to determine the pace of their own development—including the right to reject proposals for development of their land.[416]

With respect specifically to corporations, the UN's Proposed Draft Human Rights Code of Conduct for Companies calls on companies to:

> *respect the rights of indigenous communities and minorities to own, develop, control, protect, and use their lands and cultural and intellectual property; indigenous communities and minorities may not be deprived of their own means of subsistence.*[417]

Companies are expected to adhere to these human rights principles, even if the countries they are working in do not. This expectation is reflected in the Proposed Draft Human Rights Code of Conduct for Companies under "Respect for National Sovereignty and the Right of Self-Determination":

> *Companies shall recognize and respect the national laws, regulations, administrative practices, and authority of the State to exercise control over its national resources in the countries in which companies operate in so far as these laws, regulations, practices, and authority do not conflict with international human rights standards.*[418]

Rights to Control Access to Subsurface Resources

With one exception,[419] references in international instruments regarding indigenous rights to land and resources do not distinguish between surface and subsurface resources. It is frequently assumed that sovereign states own the rights to subsurface resources. It has been argued, however, that this assumption is not appropriate in cases where states recognize private ownership of subsurface resources; in such cases, countries should not discriminate against indigenous ownership.[420] Similarly, such an assumption does not withstand scrutiny in light of indigenous peoples' right to self-determination, which includes the right to freely dispose of their natural wealth and resources, and limits state sovereignty with regard to subsoil resource ownership.

In some cases, states recognize the rights of indigenous people to subsurface minerals. Caruso et al. (2003) argue that in much of the British Commonwealth, surface rights, if not extinguished or expropriated, include subsurface rights to base minerals:

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[416] MMSD (2002: 154).
[417] Proposed Draft Human Rights Code of Conduct for Companies, E/CN.4/Sub.2/2000/WG.2/WP.1/Add.1. May 25, 2000, F (18).
[418] Proposed Draft Human Rights Code of Conduct for Companies, E/CN.4/Sub.2/2000/WG.2/WP.1/Add.1. May 25, 2000, F (14).
[419] See ILO 169, article 15 (2).
[420] Caruso et al. (2003: 41).

> *Indigenous ownership of subsoil resources within reserves and reservations is also recognized in the United States and Canada. This recognition even extends to the so-called "royal minerals," gold and silver, which is not the case for non-indigenous surface owners under common law.*[421]

The 1976 Aboriginal Land Rights Act of the Northern Territory, Australia, recognizes the right of Aboriginal landowners to reject exploration and mining on their land and to set the terms and conditions under which a project can go ahead, except in cases where the project is deemed to be of "national interest."[422]

In Canada, in 1997, a court case known as Delgamuukw v. British Columbia saw the Supreme Court of Canada recognizing that aboriginal title confers mineral rights: "Lamer CJ of the Canadian Supreme Court stated that 'aboriginal title also encompass [sic] mineral rights, and lands held pursuant to aboriginal title should be capable of exploitation in the same way….'"[423] However, in the recent "Haida decision," the Supreme Court has argued that consent is not needed. Possible triggers for seeking consent or levers for making the case for consent with government or industry, could be legal (e.g., Treaty rights, court cases), regulatory (EA processes), non-legal (e.g., a spectrum of actions from civil action to negotiations), or all three.[424]

With regard to mineral rights, a recent South African Constitutional Court case provides support for indigenous peoples' ownership of the subsoil. In Alexkor Ltd and the Republic of South Africa v. The Richtersveld Community and Others, the Court held that a dispute between indigenous people as to the right to occupy a piece of land has to be determined according to indigenous law "without importing English conceptions of property law."[425] The Court further observed that it was "satisfied that under the indigenous law of the Richtersveld Community communal ownership of the land included communal ownership of the minerals and precious stones."[426]

In the Philippines, the 1995 Mining Act prohibits mining in areas occupied by indigenous communities that have been in that place since "time immemorial," except with their free, prior, and informed consent. In 1997 the Indigenous Peoples' Rights Act (IPRA) was introduced (which reflects the UN Draft Declaration on the Rights of Indigenous Peoples). IPRA expressly includes subsurface rights in the ancestral domain land rights of indigenous peoples, referring to "mineral and other natural resources" as part of the "ownership" (in the sense of tenurial rights) of indigenous peoples on ancestral domains.[427]

[421] Tebtebba and Forest Peoples Programme (2003: 41).
[422] Sosa (2000).
[423] Delgamuukw, at 1086 in Tebtebba and Forest Peoples Programme (2003: 41).
[424] Pers. comm. with Viviane Weitzner of The North-South Institute.
[425] Alexkor Ltd and the Republic of South Africa v. The Richtersveld Community and Others, CCT 19/03, Judgment of 14 October 2003, at para. 50 (footnotes omitted).
[426] Id., at para. 64.
[427] Section 3 (a), Rep. Act No. 8371 (1997) in Leonen (1998: 18–19).

In 1997, the “Samatha Judgement” by India’s Supreme Court ruled that all leases to private mining companies on tribal lands known as Fifth Schedule areas were illegal, because of the protected status of scheduled tribal areas, affecting 100 million *adivasis* (tribal people) in eight states.

APPENDIX A.3: INTERNATIONAL INSTRUMENTS, MULTISTAKEHOLDER PROCESSES, AND UNITED NATIONS POSITIONS SUPPORTING FREE, PRIOR, AND INFORMED CONSENT[428]

1948—Articles 10, 12, 20, 27 are relevant as is Article 30 of the UN Draft Declaration on the Rights of Indigenous Peoples.

> *Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands, territories and other resources, including the right to require that states obtain their free and informed consent prior to the approval of any project affecting their lands, territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.* [429]

1965—International Convention on the Elimination of All Forms of Racial Discrimination. In 1997 the Control Committee for this convention, the Committee on the Elimination of Racial Discrimination (CERD) adopted a General Recommendation that called upon States to ensure that no decision be taken with respect to indigenous rights and interests without their "*informed consent*."

1989—International Labour Organization Convention 169, **Articles 6, 7, 15 and 16**. ILO 169 refers to the *principle of free and informed consent* in the context of relocation of indigenous peoples from their land in its article 6. In article 6, 7 and 15, the convention aims at ensuring that every effort is made by the States to fully consult with indigenous peoples in the context of development, land and resources.

1990—Inter-American Development Bank*, IDB Resource Book on Participation*, Annex: "Strategies and Procedures on Socio-Cultural Issues as Related to the Environment." The The annex provides that: "In general the IDB will not support … projects affecting tribal lands, unless the tribal society is in agreement…."[430]

1992—The Convention on Biological Diversity refers to the "*approval and involvement*" of indigenous and local communities in the use of traditional knowledge.

1994—The UN Center on Transnational Corporations concluded that multinational companies' "performance was chiefly determined by the quantity and quality of indigenous

[428] For an overview of treaty provisions, jurisprudence and development policies on indigenous peoples' right to FPIC, see *Preliminary working paper on the principle of free, prior and informed consent of indigenous peoples in relation to development affecting their lands and natural resources that would serve as a framework for the drafting of a legal commentary by the Working Group on this concept submitted by Antoanella-Iulia Motoc and the Tebtebba Foundation.* UN Doc. E/CN.4/Sub.2/AC.4/2004/4, 8 July 2004.
[429] Tebtebba and Forest Peoples Programme (2003: 44).
[430] Inter-American Development Bank (1990).

peoples' participation in decision making" and "the extent to which the laws of the host country gave indigenous peoples the right to withhold consent to development…."[431]

1997—Committee on Elimination of Racial Discrimination calls upon governments to:

> *…ensure that members of indigenous peoples have equal rights in respect of effective participation in public life, and that no decisions directly relating to their rights and interests are taken without their informed consent.*[432]

1998—Indigenous peoples within the framework of the development cooperation of the European Community and Member States. The European Union Council of Ministers' Resolution states: "indigenous peoples have the right to choose their own development paths, which includes the right to object to projects, in particular in their traditional areas."

2000—World Commission on Dams. Commissioned by the World Bank, the final report of the WCD was among the first multistakeholder processes to recognize FPIC, arguing that the principle would allow communities equal footing in development negotiations:

> *Requiring the free, prior and informed consent of indigenous and tribal peoples empowers them at the negotiating table.*[433]
>
> *Moreover, the Commission believes that all countries should be guided by the concept of free, prior and informed consent, regardless of whether it has already been enacted into law.*[434]

2001—United Nations High Commissioner for Human Rights—Workshop on Indigenous Peoples, Private-Sector Natural Resource, Energy and Mining, Companies, and Human Rights:

> *…recognized the link between indigenous peoples' exercise of their right to self determination and rights over their lands and resources and their capacity to enter into equitable relationships with the private sector. It was noted that indigenous peoples with recognized land and resource rights and peoples with treaties, agreements or other constructive arrangements with States, were better able to enter into fruitful relations with private sector natural resource companies*

[431] *Report of the Commission on Transnational Corporations to the Working Group on Indigenous Populations.* UN Doc. E/CN.4/Sub.2/1994/40, at para. 20.

[432] Tebtebba and Forest Peoples Programme (2003: 42).

[433] WCD (2000: 216).

[434] WCD (2000: 219). The World Commission on Dams includes important discussion around issues related to operationalizing FPIC, such as how many members of a community must agree, how to engage vulnerable groups such as women, and process guidelines.

> *on the basis of free, prior, informed consent than peoples without such recognized rights.*[435]

2001—UNDP and Indigenous Peoples: A Policy of Engagement, paras. 26–30. "UNDP promotes and supports the right of indigenous peoples to free, prior informed consent with regard to development planning and programming that may affect them."

2002—United Nations—Report on the Workshop on Indigenous Peoples, Private Sector Natural Resource, Energy, Mining Companies and Human Rights.

> *…indigenous peoples with recognized land and resource rights and peoples with treaties, agreements or other constructive engagements with States, were better able to enter into fruitful relations with private sector natural resource companies on the basis of free, prior, informed consent than peoples without such recognized rights.*[436]

2002—Inter-American Commission of Human Rights, Report No. 75/02, at para. 131. Inter-American Human Rights Law requires:

> *…special measures to ensure recognition of the particular and collective interest that indigenous people have in the occupation and use of their traditional lands and resources and their right not to be deprived of this interest except with fully informed consent, under conditions of equality, and with fair compensation.*[437]

2002—Mines, Minerals and Sustainable Development Project (MMSD 2002). The final report of the industry-led multistakeholder MMSD process strongly favored FPIC for both indigenous and non-indigenous communities:

> *Land use decisions should be arrived at through a process that respects the principle of prior informed consent arrived at through democratic decision making processes that account for the rights and interests of communities and other stakeholders… Decision-making processes must be open to the decision not to mine in circumstances where cultural, environmental or other factors override access to minerals or where mining would impose unacceptable loss in the view of those it is being imposed on.*[438]

2003—Report No. 96/03, Maya Indigenous Communities and their Members (Case 12.053 (Belize)), 24 October 2003, at para. 141 (footnotes omitted). Articles XVIII and XXIII of the American Declaration specially oblige a member state to ensure that any determination of the extent to which indigenous claimants maintain interests in the lands to which they have

[435] *Report of the Workshop on Indigenous Peoples, Private Sector Natural Resource, Energy, Mining Companies and Human Rights.* Geneva, December 5–7, 2001. E/CN.4/Sub.2/AC.4/2002/3, 3 (2002).
[436] Tebtebba and Forest Peoples Programme (2003: 44–45).
[437] Tebtebba and Forest Peoples Programme (2003: 42).
[438] MMSD (2002: 25), See also pp. 143, 153, and 158.

traditionally held title and have occupied and used is based upon a process of fully informed consent on the part of the indigenous community as a whole. This requires, at a minimum, that all of the members of the community be fully and accurately informed of the nature and consequences of the process and provided with an effective opportunity to participate individually or as collectives. In the Commission's view, these requirements are equally applicable to decisions by the State that will have an impact upon indigenous lands and their communities, such as the granting of concessions to exploit the natural resources of indigenous territories.

2003—Commentary on the Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights, UN Doc. E/CN.4/Sub.2/2003/38/Rev.2, para. 10(c) (2003).

> *Transnational corporations and other business enterprises shall respect the rights of local communities affected by their activities and the rights of indigenous peoples and communities consistent with international human rights standards…. They shall also respect the principle of free, prior and informed consent of the indigenous peoples and communities to be affected by their development projects.*

2003—World Bank Extractive Industries Review (EIR). The EIR concluded that indigenous peoples and other affected parties have the right to participate in decision making and to give their free, prior, and informed consent throughout each phase of a project cycle. This consent should be seen as a principal determinant of whether there is a "'social license to operate,' and hence is a major tool for deciding whether to support an operation."[439]

2004—Indigenous Peoples' Permanent Sovereignty over Natural Resources. Final Report of the Special Rapporteur, Erica-Irene A. Daes. UN Doc. E/CN.4/Sub.2/2004/30, para. 72).

> *Consistent with the findings and recommendations of the World Bank's independent Extractive Industries Review, multilateral development banks should take a clear position on upholding and supporting the human rights of indigenous peoples in relation to the extractive industry sector and should abstain from supporting extractive industry projects that affect indigenous peoples without prior recognition of and effective guarantees for indigenous peoples' rights to own, control, and manage their lands, territories, and resources.*

[439] World Bank (2003: 24).

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