SOURCING RESPONSIBLE PLATINUM GROUP METALS

Activities in the United States and
International Opportunities and Recommendations

Comments of the Center for Science in Public Participation[1] and Earthworks[2] for:

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In recent years the public and mining industry have focused increasing attention on the impacts caused by mining and processing mined materials and concern about reducing impacts from these activities. Many concerns started over awareness about "conflict diamonds" and "dirty gold." Mining companies, non-government organizations (civil society organizations; NGOs), labor groups, community organizations, industry associations, and coalitions have launched studies and campaigns to address the social and environmental problems associated with mining. Like many mines and mining sectors, miners and producers of platinum group metals (PGMs) have considered and undertaken their own studies and activities to develop responsibly sourced PGMs.

This paper is broken into two parts. The first discusses PGM mining in the United States and the second describes emerging initiatives for responsible mining that are relevant to PGMs. Among the key recommendations are that PGM producers face the same issues and problems as, for instance, gold mines and that while PGM producers could seek their own solutions to these problems they may best achieve responsibly sourced materials by joining existing efforts. The Initiative for Responsible Mining Assurance is one of the broadest and most complete of these efforts, includes both the necessary participant sectors and the technical components to serve PGM producers in their pursuit of responsible mining activities.

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[1] http://www.csp2.org. The Center for Science in Public Participation provides objective research, education and technical advice to grassroots groups, non-governmental organizations, regulatory agencies, businesses, and indigenous communities on natural resource issues, especially those related to mining.

[2] http://www.earthworksaction.org/. Earthworks is a non-profit organization dedicated to protecting communities and the environment from the destructive impacts of mineral development, in the U.S. and worldwide.

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I. Platinum in the United States

There is only one platinum mine in the United States - the Stillwater Mine, located in Montana, in the northern US Rocky Mountains. This paper therefore focuses on the Stillwater Mine and then on general initiatives regarding developing and monitoring responsible mines.

The Stillwater mine is regulated by both state (Montana) and federal (US) laws.

Federal Law

United States mine regulation is based on a law passed in 1872 plus various more recent federal laws and regulations. The 1872 Mining Act was passed in large part to "open" the western United States to settlement and development.[4] The law gives precedence to mining over all other uses, requires no royalty payments to the government, and contains no environmental protections. Other federal laws partially fill-in the gaps for environmental, worker, and other protection/regulation. However, these laws together create a sometimes complicated, confusing, and incomplete rubric.

Federal non mining-specific laws that impact mining include, but are not limited to, water quality, fish and wildlife, air quality, mine worker safety, historical and cultural preservation, and public participation.

State Law

In addition to federal laws, states have laws that regulate or pertain to mining. The laws of each state are different and specific to that state. There are vast differences between the states, although where the state laws are based on federal law than the state law generally must meet the minimum requirements of the federal law.[5] In addition to the states' laws being individual to each state, the implementation - and efficacy - of these laws is different based on enforcement, funding, politics, and other factors.

As a result, mining regulation is vastly different between the states. For example, New Mexico and Montana have what is generally considered to be more environmentally protective requirements than Nevada or Alaska.

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[4] For a general background into the 1872 mining law, mining in the western United States, and related issues, see the multi-part Seattle Post Intelligencer (newspaper) story at: http://seattlepi.nwsource.com/specials/mining/. The article specific to the 1872 mining law is available at http://seattlepi.nwsource.com/specials/mining/26875_mine11.shtml. In October 2007 the United States Congress passed a bill to reform the 1872 Mining Law. *See* http://uk.reuters.com/article/oilRpt/idUKN0154772920071101 or http://www.helenair.com/articles/2007/11/02/montana/a011102_03.txt. To become law, the bill requires passage of a similar bill in the United States Senate and signature of the President. Many terms, such as royalty provisions will likely be negotiated as part of the legislative process leading to a final bill or law.

[5] An example is the Federal Clean Water Act, which allows states to take "primacy" in enforcing the federal law, so long as the state's law meets specified federal minimums. *See* http://www.epa.gov/region5/water/cwa.htm.

State non mining-specific laws that impact mining include, but are not limited to, water quality, fish and wildlife, air quality, mine worker safety, historical and cultural preservation, public participation, social and economic issues, and bonding.

Stillwater Mine

The Stillwater Mining Company (SMC) develops, extracts, processes, and refines PGMs at its mines located near Nye, Montana and southeast of Big Timber, Montana.[6] The company is a publicly corporation traded on the New York Stock Exchange.[7] It is overseen by a board of directors and chief executive officer.[8] Like many mining companies, Stillwater has undergone many ownership changes and relationships.[9] In 2003 MMC Norilsk Nickel[10] acquired approximately 55% of the company, and the remaining 45% is owned by Stillwater Mining. According to Norilsk Nickel, Norilsk Nickel and Stillwater remain independent producers and world competitors in PGM mining and marketing.[11]

Stillwater Mining Company is one of the world's leading producers of platinum group metals and the only significant primary producer of palladium in the Western Hemisphere. The Company's 28-mile long JM Reef in Montana is the highest grade orebody containing platinum group metals (PGMs).[12] The mine has significant PGM reserves.[13] The Company operates two mines - the Stillwater Mine and East Boulder Mine. Each mine operates its own concentrating plant. SMC operates a smelter, refinery and laboratory at Columbus, Montana to further upgrade the concentrate. These facilities also recycle spent catalyst material to recover platinum group metals.[14]

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[6] For general information and statistics about the company and its mines, see http://www.stillwatermining.com/. Various photos of the Stillwater mine and geology are available at http://www.union.edu/PUBLIC/GEODEPT/hollocher/teaching_petrology/stillwater.htm.

[7] NYSE: "SWC."

[8] The company's governance information is available at: http://www.stillwatermining.com/CorporateGovernance/GovernancePrinciples/GovernancePrincipals.html.

[9] For the mine's general history see http://www.answers.com/topic/stillwater-mining-company?cat=biz-fin.

[10] http://www.nornik.ru/en/.

[11] http://www.nornik.ru/en/production/stillwater/about/. The deal was criticized in the US for various reasons. See http://www.motherjones.com/news/outfront/2004/05/04_406.html.

[12] http://phx.corporate-ir.net/phoenix.zhtml?c=99837&p=irol-IRHome.

[13] As of December 31, 2006, the Company's total proven palladium and platinum ore reserves were approximately 4.8 million tons at an average grade of 0.57 ounce per ton, containing approximately 2.7 million ounces of palladium plus platinum, an increase of 16% in proven ore reserve tonnage from December 31, 2005. The Company's total probable palladium and platinum ore reserves were approximately 37.7 million tons at an average grade of 0.54 ounce per ton, containing approximately 20.3 million ounces of palladium plus platinum, a decrease of 6% in probable contained ounces from December 31, 2005. Combined the Company's total proven and probable palladium and platinum ore reserves were approximately 42.4 million tons at an average grade of 0.54 ounce per ton, containing approximately 23.0 million ounces of palladium plus platinum, a decrease of 4% in total proven and probable contained ounces from December 31, 2005. http://phx.corporate-ir.net/phoenix.zhtml?c=99837&p=irol-SECText&TEXT=aHR0cDovL2NjYm4uMTBrd2l6YXJkLmNvbS94bWwvZmlsaW5nLnhtbD9yZXBvPXRlbmsmaXBhZ2U9NDcwMzE3NyZkb2M9MSZudW09MTA=.

[14] http://www.stillwatermining.com/overView.html.

The palladium rich J-M Reef within the Stillwater Complex was identified in the 1970's. Initial Construction of the Stillwater Mine was completed by 1986 and underground mining commenced. The Stillwater Mine accesses the eastern side of the JM Reef. Since 1998 the Stillwater Mine has been producing over 400,000 ounces of palladium and platinum per year.[15]

The East Boulder Mine accesses the western side of the JM Reef and was initially permitted in 1992. Construction of the East Boulder Mine began in 1999 and commercial production began in 2003. Initial production averaged over a half ounce per ton. In 2002 the East Boulder Mine produced 125,000 ounces of palladium and platinum.[16]

Many of the Stillwater Mine's environmental practices are founded in and determined by the Good Neighbor Agreement (GNA) it developed and implemented in 2000 with local NGOs.[17]

Stillwater Good Neighbor Agreement

Prior to the GNA, Stillwater Mine was frequently recognized as being environmentally proactive. As would be expected, it was criticized for some of its practices but as the GNA's Recitals underscore, the company was well regarded for many of its environmental and social practices. The GNA "codified" some of the company's past practices and established many new ones.

The GNA works thru a cooperative framework of third-party experts, the mining company, and local citizens to: provide for citizen oversight of mining operations to help protect the area's quality of life and productive agricultural land; establish clear and enforceable water quality standards that in some cases are more stringent than state requirements; provide local communities with access to critical information about mining operations and the opportunity to address potential problems before they occur; implement traffic planning to reduce mining traffic on country roads; and sets goals and objectives for environmental technologies.

The GNA is based on the principles that (1) citizens have a right and responsibility to have a say in decisions that affect their lives; (2) sharing information builds trust and reduces misunderstanding; and (3) good community relations and solid environmental performance are good for business. The GNA is a legally binding contract between the mining company and community interests.

Discussion about the Stillwater GNA

In 2004, the Natural Resource Law Center of the University of Colorado School of Law completed an evaluation of GNAs in the US.[18] The Stillwater GNA appears to

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[15] http://www.stillwatermining.com/stillWMine.html.
[16] http://www.stillwatermining.com/eastBoulder.html.
[17] http://www.northernplains.org/files/2005amendedgna. Note that the Stillwater GNA was amended in 2005. The original 2000 agreement is available at: http://www.northernplains.org/ourwork/goodneighbor/files/Good_Neighbor_Agreement.pdf. The amendments largely were largely part of the implementation, effectiveness, and evolution of the 2000 agreement. Descriptions in this section are from the 2005 GNA.

be an effective and successful method of protecting environmental and social resources. It is a complex detailed agreement that required a great deal of time and resources to scope, negotiate, and implement. Based on this report, it is reasonable to conclude that the Stillwater GNA is likely successful because it involves a company with both (1) the will and (2) the resources to address community concerns -- and a community with (1) the capacity and (2) the skill/sophistication to engage the company (including before the GNA process was started), identify issues and concerns, negotiate terms, and the capacity to maintain its participation. The Natural Resource Law Center's report's conclusions about Stillwater GNA being more detailed and far-reaching than many GNAs is important, because it underscores that what happened at Stillwater may not be typical and also that all of the details and components at Stillwater may not be necessary elsewhere.

That the company and community both had the necessary characteristics and resources is potentially unique and the absence or failure of any of these resources could cause the process to fail. That is not to suggest GNAs are not viable or should not be considered. Like any tool, GNAs should be evaluated as an option to determine how well they fit the needs of the participants and resources.

Many of Stillwater's mining and related practices are, at a minimum, considered and/or overseen by the GNA.[19] The mine has generally been considered to employ good environmental practices. Examples of some of the GNA's issues/activities include the following.

Economic Impacts

As described above, individual states in the US exercise great regulatory control over mining. In Montana, the state includes in its permitting processes the need to mitigate economic impacts that a mine will cause to an area. These include social costs (from schools to fire engines) and the impacts that will result when a mine closes. This mitigation eliminates some social concerns. Stillwater's mines are located in rural areas and many if not most miners live in larger towns miles from the mine.

Traffic

A big issue for local residents was the traffic created by commuting miners, not to mention the mine's truck traffic. The GNA required car-pooling and the bussing of miners from nearby towns to the mine sites. This was not without controversy[20] but appears to be largely successful at reducing traffic. The GNA also considered commercial mine traffic and successfully reduced traffic by establishing policies regarding efficiency, timing, and volume. Reducing road traffic was also important to reduce wildlife mortality (and driver injury).

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[18] www.northernplains.org/ourwork/goodneighbor/files/GoodNeighborAgreementsEvaluationReport.pdf. This report did not focus exclusively on the Stillwater GNA but included detailed input from Northern Plains Resource Council, one of the Stillwater GNA signers. Many observations in this section coincide with - or are related to - the findings in that report.

[19] That is not to suggest causation of, or judgment about, the company's participation in the GNA. The company's website barely mentions the agreement.

[20] Many individuals asserted that they had the "right" to drive their own vehicles or objected to the plan for other reasons.

Employment

The company has had issues with employee turnover for many years and has taken numerous steps to maintain its employee force.[21] The company has a reputation for training its employees well, which may fuel some of its turnover by creating a demand for them at other mines.[22] Employee turnover is more likely at least partly because of employee concerns about job stability and pay.[23] The company recently described that it had too many employees leading it to reorganize its workforce - resulting in many employees leaving the mine.[24]

More than 80% of mining at the Stillwater Mine is mechanized, employing ramp and fill mining, sub-level stoping and cut and fill mining.[25] The mine employees have changed union representation a number of times and are currently in Steelworkers Union.[26]

Environment and Public Lands

Environmentally, a particularly beneficial feature of the JM-Reef is that it is essentially barren of sulfide minerals that could cause acid mine drainage. In the northern US Rocky Mountains acid mine drainage may be the greatest mine issue, so its absence at Stillwater removes a host of typical water quality issues - and containment and treatment costs. Nitrates tend to be high in Stillwater tailings, largely as a result of blasting byproducts.

Because the mine is located in public lands, near Yellowstone National Park, wilderness lands, popular and productive fisheries and wildlife habitat, and heavily used hunting, recreational lands, the mine is of great concern to those seeking to protect the area's natural resources. Since the mine's modern inception it has been heavily "watched" and scrutinized. For that reason, it seems fitting that a detailed GNA would be created there. This paper does not seek to discern the cause, but the Stillwater mine is generally considered one of Montana's better mines[27] but all mines present potential environmental issues.[28]

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[21] *See e.g.* http://seekingalpha.com/article/53096-stillwater-mining-company-q3-2007-earnings-call-transcript; http://www.infomine.com/news/headline/welcome.asp?NewsID=67976;

[22] There have been instances where other mining companies have advertised in the local press seeking trained employees.

[23] The majority of turnover occurs among miners and general employees. However, at the end of November Stephen A. Lang, the company's Executive Vice President and Chief Operating Officer announced that he will resign to pursue an opportunity with another mining company. http://phx.corporate-ir.net/phoenix.zhtml?c=99837&p=irol-newsArticle&ID=1082281&highlight=.

[24] The company described its problem as "manpower issues" which appears to be more employees than desired for the mine's economics. *See* http://seekingalpha.com/article/53096-stillwater-mining-company-q3-2007-earnings-call-transcript.

[25] http://www.infomine.com/minesite/minesite.asp?site=stillwater.

[26] In recent years the mine has also been part of the International Brotherhood of Electrical Workers (IBEW) and Paper Allied-Industrial Chemical and Energy Workers International Union (PACE). *See also* http://www.mineweb.com/mineweb/view/mineweb/en/page35?oid=23434&sn=Detail.

[27] See e.g. http://meic.org/mining/mine_cleanup/copy7_of_perpetual_pollution_rule/perpetual-pollution-rule-background.

[28] *See generally* The Framework for Responsible Mining, http://www.frameworkforresponsiblemining.org/docs.html.

Like most mines, the Stillwater will leave behind underground workings with the potential to leach nitrates or other contaminants and a tailings pond that is intended to be left in perpetuity. State of Montana environmental regulators concluded that discharges from the mine would at some point not require water quality treatment but this conclusion remains somewhat controversial.[29]

A key to evaluating Stillwater's mining practices, the GNA, and probably all metals/minerals, is defining what is "responsible" and then defining the standards/criteria against which a mine is evaluated.

II. Responsibly Sourced Platinum Group Metals

Platinum group metals are unique in their environmental application - most notably because they often help reduce emissions and thereby help protect the environment, such as where applied in vehicle emissions scrubbers.[30] However, as a practical matter the impacts from mining PGMs are not substantively different from the impacts from mining non PGM hard rock minerals. PGM mines may be unique in their geology and rarity, but the environmental and social issues and impacts at PGM mines are similar to other hard rock mines and therefore the approaches to dealing with mining impacts at PGM mines should be similar to approaches used at other hard rock mines. Therefore, it is suggested that PGM mines have no technical reasons to separate themselves from other hard rock "responsible mining" initiatives.

Emerging Voluntary Initiatives

Consumers and corporations are increasingly concerned about environmental and social responsibility.[31] The mining industry, which has historically caused great environmental and social impacts, is now often seeking to develop voluntary initiatives. There are many examples of voluntary initiatives. Some of the major initiatives are summarized in Appendix A.

This paper focuses on two of the most comprehensive initiatives: The Framework for Responsible Mining (Framework)[32] and the Initiative for Responsible Mining Assurance (IRMA).[33] The Framework is comprehensive and considers the major

[29] http://www.epa.gov/fedrgstr/EPA-IMPACT/2001/July/Day-27/i18754.htm; http://www.redlodgeclearinghouse.org/stories/stillwater.pdf;

[30] PGMs present a philosophical issue of whether the benefits of PGM applications outweigh the costs of PGM production. By example, how does one weigh the significant environmental degradation (such as to water quality) caused during mining or processing against the environmental benefits (such as to air quality) yielded from application of the processed PGMs? This is complicated by the fact that the locus of environmental degradation caused by mining is likely to be remote, and remote from, the locus of environmental benefit.

[31] How these two items interact is a "chicken-and-egg" question that may be immaterial. What matters in the author's opinion is that there is an increasing trend towards "responsibly sourced" and "responsible" products. Companies have increasing economic and social incentives to become more environmentally and socially responsible. The public and NGOs also have an increasing awareness of false or insufficient corporate activities that seek to appear environmentally or socially responsible but are not ("greenwash").

[32] http://www.frameworkforresponsiblemining.org/index.html.

[33] http://www.responsiblemining.net/index.html.

topics necessary to evaluate a mine for its social and environmental responsibility. The IRMA includes the key components that the author concludes are necessary to establish standards and a verification scheme to evaluate and assure a mine's - or mined product's - social and environmental responsibility. Moreover, IRMA includes participants from the mining, NGO, jewelry, labor, and community sectors - which are all needed for a comprehensive and credible process.

Framework for Responsible Mining

The Framework for Responsible Mining (Framework) is the most comprehensive review of international mining practices and standards to date. It identifies principles, improved standards, and best practices appropriate for hard rock mining. Adoption of key Framework elements would eliminate many of the worst impacts from mining. In addition to mining company practices and activities, it considers the role(s) that are played by jewelry retailers, investors, insurers and nongovernmental organizations (NGOs).

As a result, the Framework provides expert guidance to the mining industry and those working with the mining industry about responsible mining. Jewelry retailers can use the findings to inform sourcing policies for gold and other metals used in jewelry. Investors and insurers can also utilize these new guidelines as they evaluate the conditions to decrease environmental and social risks.

The Framework considers and responds to the potential environmental, human rights, and social impacts associated with large-scale mining projects. It explores state-of-the-art social and environmental practices and emerging trends. Moreover, it recommends improvements where they are justified by science and expert analysis. It seeks to be a comprehensive guide to lay the foundation for complete set of standards that are negotiated and endorsed by a broad group representing interests in mining - affected communities, NGOs, and the mining industry. A key strength of the Framework is that it attends to not only easily solved issues but difficult and "leading edge" concerns. In this way it ensures that comprehensive, concrete, and detailed guidance is available to all sectors.

The Framework draws on existing campaigns, projects, and initiatives including the International Council on Mining and Metals, the Mining Certification Evaluation Project (MCEP—a multi-stakeholder project of WWF-Australia), the World Bank's Extractive Industries Review, as well as other sources and company-specific programs.

Initiative for Responsible Mining Assurance

The Initiative for Responsible Mining Assurance (IRMA) joins the mining, jewelry, labor, community, and NGO sectors to reverse the history of controversy and conflict about mining and develop strategies and systems that add value for all participants and stakeholders. It seeks to build on and improve steps that previous responsible mining efforts have considered or created.

Key components of the IRMA are its inclusion of all relevant sectors and its recognition that third-party verification and certification are essential. It is widely

understood that in-house or contracted second-party assurance protocols are suspect by definition. IRMA seeks to ensure that its results are credible and acceptable to all parties.

Like a Good Neighbor Agreement, the IRMA process recognizes that parties will not always agree but commits to dialogue despite disagreements. It also seeks to recognize, work from, and advance current best practices in the mining sector. The IRMA began as a dialogue and is establishing processes to develop draft standards and verification schemes.

IRMA is not a hypothetical exercise, but rather is establishing standards and a verification scheme that will be employed throughout the product chain from mine to consumer or industrial product - and then to post-consumer recycling. The latest activities include finalizing standards for labor, emergency response, and cyanide management and selecting the next set of standards that will be drafted for adoption. It is also currently developing an initial verification scheme to be tested and implemented.

IRMA participants recognized the complexity and vast size of its undertaking - and sought to advance in small measured steps. It has ongoing steps and phases to ensure that its successes are used to advance the overall process to serve the mining and jewelry industries and the public. The IRMA is not a test or demonstration project - it seeks to develop effective and complete standards and processes to verify and certify responsible mining products.

Its strength lies in its including representatives of mining, jewelry, labor, community, and NGO sectors. Without all of the sectors it is likely that any product would ultimately be deemed biased, unrepresentative, unreliable, and/or suspect. While the participants must judge the initiative along the way, it strives to achieve international multi-sector acceptability thereby ensuring its success.

The strategy, approach and systems initially focused on gold and diamonds but the participants recognized the need for the IRMA to apply to all minerals (or at least all hard rock minerals, including PGMs). While the IRMA may offer PGM mines and producers an effective process, PGM mines and producers may offer to IRMA the PGM mines and producers' valuable and scientifically important expertise. This could yield a synergy that benefits all parties.

Conclusions

- PGM producers face similar issues and problems as most hard rock mines.
- PGM producers have a need to source their minerals and produce their products to ensure they are socially and environmentally responsible.
- Some PGM producers are currently implementing successful responsible mining efforts. Some of the key components the PGM sector should consider are ensuring that its efforts reasonably define "responsible"; that its goals are sufficiently broad and timely; that its efforts include appropriate parties/participants; that its efforts are evaluated by a third party (not beholden to the participant interests); and that the process is open and public.

- The Framework for Responsible Mining may offer PGM miners and producers the necessary framework to consider and evaluate most if not all social and environmental issues regarding PGM mining and production.
- The Initiative for Responsible Mining Assurance may offer PGM mines and producers the necessary partners and technical framework to yield a viable, expedient means to certify a more sustainable, environmentally and socially responsible product.

APPENDIX A

SUMMARIES OF SELECTED RESPONSIBLE MINING EFFORTS

The following summaries seek to provide basic information about selected major responsible mining efforts. The content is exclusively from the sources identified (the organization that created the program/activity). Readers seeking further information should contact the primary sources provided.

- Extractive Industries Review
- Framework for Responsible Mining
- Green Lead Certification
- ICMM Sustainable Development Framework
- Initiative for Responsible Mining Assurance
- International Cyanide Management Code For the Manufacture, Transport, and Use of Cyanide In the Production of Gold
- International Organization for Standardization 14001
- Mining Certification Evaluation Project
- Principles For The Conduct Of Company Operations Within The Minerals Industry In Meghalaya [*DRAFT*]
- Voluntary Principles on Security and Human Rights

Extractive Industries Review

The World Bank Group (WBG) implemented the Extractive Industries Review (EIR) to conduct a comprehensive review of its activities in the extractive industries sector. This was done in response to concerns expressed by a variety of stakeholders, primarily environmental and human rights organizations. The review was a means for the WBG to evaluate its extractive industries investments and some of their impacts. The EIR is an important component to develop WBG direction and policies.

WBG's management indicated that it would continue investments in oil, gas, and mining projects, as these remain an essential part of the development of many poor nations. The management also noted that, as countries develop their resources, WBG capital and expertise can help ensure that such projects meet high environmental, social, and governance standards, and that revenue from the projects is used transparently and effectively.

The central message of the reviews was that while extractive industries investments can contribute to sustainable development, the WBG should further enhance its efforts in several areas: more explicitly identifying and tracking poverty reduction associated with its projects, the overall quality of governance in host countries, broader inclusion of local stakeholders, transparency of revenue management and project documents, and the promotion of renewable energy and cleaner fuel alternatives.

The two key questions posed by the EIR are: (1) How effective has the assistance and investment of the WBG been in helping advance sustainable development through the extractive industries? (2) What should be the future role of the WBG in the extractive industries sector?

The WBG concluded that extractive industries make a significant contribution to sustainable development and poverty reduction. The WBG also recognizes that stakeholders have legitimate concerns about the impact of extractive industries: at the global level, on issues such as climate change and biodiversity; at the country level, regarding the extent to which a heavy economic reliance on extractive industries revenues creates a “resource curse”; and, at the local level, in terms of the impact on the environment and surrounding communities.

The reviews found that WBG involvement in extractive industries has resulted in contributions to sustainable development that have been positive, but not uniformly so, and that the WBG can continue to make positive contributions to sustainable development through various types of involvement in this sector.

There is wide support for WBG involvement in a number of extractive industries-related activities, such as lending for public sector reforms; environmental rehabilitation; gas-flaring reduction; mine-closure investments; investments that increase local ownership or ownership by previously-disadvantaged groups; and investments in efficiency upgrades or projects that shift countries toward using cleaner fuels. There is also considerable momentum for reform, both within the WBG and among external stakeholders. Some of these issues include increased transparency of extractive industries revenue figures, increased local stakeholder consultation, the disclosure of additional project and process information, guidelines

for the use of security forces that protect extractive industries project sites, and raising certain technical standards associated with extractive industries industry operations.

The WBG's Management will continue to study the report and welcome the views of a wide array of stakeholders. Once a draft Management Response is formulated, it will be submitted to the WBG's shareholder nations for further refinement and revision in the next three months or so, first through a meeting of a sub-committee of the Board, the Committee on Development Effectiveness (CODE), and later through a meeting of the full Board of Executive Directors. It is anticipated that a draft Management Response to the EIR will be released following CODE review and discussion.

More about the EIR and WBG is available at: http://www.ifc.org/eir.

The Framework for Responsible Mining

The Framework for Responsible Mining is the result of a call by NGOs, retailers, investors, insurers, and technical experts working in the minerals sector 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 (1) outlines environmental, human rights, social, and governmental governance issues associated with mining and mined products; (2) explores state-of-the-art social and environmental improvements; and (3) provides recommendations for governments and government agencies, civil society groups, including NGOs, the mining industry, financial institutions, including public and private banks as well as insurers, and producers, sellers, and consumers seeking investments or assurance that a product is environmentally or socially responsibly produced and sourced precious metals.

Recent examples of "responsibility projects" include sustainable forestry, conflict diamonds, and apparel industry labor practices demonstrate the public's desire for environmental and social responsibility. Mining effects environmental and social change no matter where the mine is located. However, by implementing the best possible standards, most or all negative impacts may be avoided. To date, existing frameworks have not met minimal goals to mitigate environmental and social impacts.

In 2003 the genesis for the Framework evolved out of dialogue that included groups such as the Center for Science in Public Participation (CSP2), Earthworks, World Wildlife Fund (WWF), and concerned businesses such as Tiffany & Co. These interests recognized that environmentally and socially responsible mine products could assuage growing consumer interest and improve business costs for distinguishing themselves from competitors by establishing a verifiable chain of custody for products. Simple compliance with the laws of the countries in which companies operate may not be sufficient to protect the environment or vulnerable communities. Consumers evaluate product accountability and "cleanliness" and social interest groups evaluate compliance with laws, protocols, and customs that protect basic human rights, self-determination, cultural integrity, labor and social rights, and the natural environment. The Framework considers all of these issues to present a balanced, comprehensive starting point for responsible mining.

Other entities are starting to consider similar issues. Three examples include the International Council on Mining and Metals (ICMM, a mining trade association), the Council for Responsible Jewellery Practices (CRJP, an association of diamond, mining, and gold jewelry businesses), and the Mining Certification Evaluation Project (MCEP, a working group comprising mining industry and social interests groups completing a policy research and development exercise evaluating whether independent third-party certification of performance can be applied to the mining sector). These initiatives by themselves don't provide a comprehensive basis to develop environmentally and socially responsible mining standards. The Framework provides the necessary research background to recommend principles for consideration by a broad range of stakeholders interested in promoting responsible

mining. During editing, drafts were reviewed by over twenty experts from NGOs, industry, government, labor, and the research community.

The Framework highlights seven common principles stemming from international agreements 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. Special emphasis is placed on women, children, and indigenous and minority groups that are often particularly underrepresented in decision making and are disproportionately impacted by mining activities.

The Framework divides topics/issues into widely accepted practices ("the Norm") and desired future standards ("the Leading Edge"). *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 (e.g. liners are universally used for ore processing at heap leach mines). *Leading Edge* practices are those that the authors concluded could generate significant environmental and social improvements if implemented. These practices are typically supported by the literature and are often promoted by government agencies; civil society groups, including NGOs; the mining industry; and financial institutions, including public and private banks and insurers.

Four themes organize the Framework. First is determining whether a mine will disturb an area that is so environmentally or socially sensitive that the area should be classified as a "no go" zone. This addresses the need to preserve ecologically and culturally significant areas and to weigh land and resource use options. This is not the only point at which participants could conclude that a mine should not proceed, but this is the functional threshold.

Second, participants must ensure environmentally responsible mine development. This theme facilitates developing widely accepted criteria by which governments, NGOs, and industry can measure the environmental performance—and ultimately the environmental acceptability—of mining projects. Governments could use such criteria to develop unambiguous development and operations standards to condition permits. The public and NGOs could define benchmarks for acceptability and evaluate the operating mines' environmental performance. Mining companies could develop and apply clear guidelines to measure and demonstrate the environmental components of their licenses and compliance.

The Third theme is ensuring that mine development results in benefits to workers and affected communities. This focuses on free, prior, and informed community consent for mining, health and safety provisions; capturing sustainable benefits for all affected peoples; and deliberately considering all individuals in the communities. This underscores that mining can impact individuals and communities outside the mine border and can specially impact indigenous and marginalized peoples.

The Fourth theme explores broader corporate and national governance provisions to ensure that appropriate governance structures are implemented at a national and corporate scale and reporting company progress made toward implementing responsible practices. This includes transparency in revenue payments and other

commitments so companies can be held accountable for progress made against stated commitments.

More information is available at www.frameworkforresponsiblemining.org.

Green Lead Certification

The Green Lead Certification scheme is a proactive product stewardship program based on the sound management of materials and products in the lead life cycle. It is the product of efforts by lead-industry interests ranging across the spectrum of lead production and use.

Three core ground rules found the Green Lead product stewardship scheme.
1. The Green Lead process must be open, honest and transparent. All relevant information, data and audit reports must be available in the public domain for inspection.
2. Third party verification is required to guarantee the credibility of Green Lead Certification.
3. Collaboration and cooperation are required between the lead industry, governments, NGOs, and community groups throughout the product chain.

The Green Lead Process has five principal steps. The first step is to identify and quantify the environmental, safety, health and social impacts associated with lead exposure during the lead life cycle. This includes current performance and historical impacts. The Life Cycle Analysis (LCA) from the European Lead Risk Assessment exercise under the Chairmanship of the Dutch Government are used to ensure a uniform methodology are going to be used to assist with the completion of this first step and identify all potential exposure problems. Because exposure risks and critical elements in the Product Stewardship Life Cycle vary, each sector - and in many cases individual plants - must conduct their own analysis and determine site or operation specific environmental threats and health risks.

The second step is establishing Green Lead Performance Standards/Criteria. This includes developing performance standards/criteria based on the results of LCA and other tools utilized for impact identification. The standards/criteria cover areas of environmental protection, workplace health and safety and community issues associated with lead exposure.

Performance standards for “Green Lead” will reflect international best practice, including the World Wildlife Fund's Certification of facilities for mine sites; the Basel Technical Guidelines for the Environmentally Sound Management (ESM) of ULAB; the environmental management systems advocated under ISO 14001and guidelines outlined for the Occupational Safety, Health Assurance System (OHSAS) 18001 for safety and health management systems.

Where possible, common criteria and international protocols will be applied across all sectors. Examples include lead in blood levels and the transboundary movement of ULAB. All sectors will also need to demonstrate a social responsibility for the industry's workers and local communities. Regarding workers rights and social development, the criteria will be consistent with conventions and recommendations of the UN Office of the International Labour Organization (ILO).

Step three establishes Green Lead Custody Chain Management. Many Environmental Management Systems emphasis the need for Supply Chain Management, and in some cases, such as Forestry Resources management, it is the control wood sourcing that is

the critical element in moving towards sustainable management. In the case of Lead Acid Batteries (LAB), the sourcing of refined lead and bullion from environmentally sound smelters ranks with equal importance to the downstream management of the finished product. This is Custody Chain Management and it means that LAB must only be sold by wholesalers and retailers that participate in schemes to collect ULAB in exchange for new sales to ensure that the lead in batteries remains controlled. This emphasis on Custody Chain Management is NOT a feature of ISO 14001.

The fourth step is Site Remediation Planning, which deals with legacy/historic problems. Companies applying for Green Lead certification may have facilities with legacy issues resulting from unsatisfactory past practices. The program anticipates that some operations currently regarded as part of the "informal sector" will apply for Green Lead Certification after they improve their environmental performance to demonstrate their "formal sector" credentials.

Steps 1 and 2 will identify and quantify remediation issues, if any, and if a Remedial Site Management Program is required, it must be established through consultation with local communities and government agencies. Achieving progress towards remediation plan milestones is a critical factor in Green Lead certification.

Step Five is that Green Lead Audit and Certification Environmental, Occupational Health and Safety Management Systems based on these standards are subject to site inspection and audit for Green Lead certification. Organizations with ISO 14001or OHSAS 18001 or equivalent certification will be exempt from certain sections of the Green Lead audit, but the internal and external dynamics of the LAB life cycle will be thoroughly checked for the sound management of the custody chain.

The Green Lead Audit and Certification criteria will include the following, depending on the nature of the operation.

- Comprehensive risk assessment and the implementation of safe working procedures.
- Control and mitigation measures for any fugitive emissions, discharges or legacy problems.
- Identification and management of environmental and health impacts.
- Compliance with prevailing national and international environmental, health and safety legislation, conventions and protocols.
- Emergency response and evacuation plans.
- Environmental and safety monitoring programs and health surveillance regime
- Chain of custody scrutinized, audited and recorded.
- Continuous improvement and employee development programs.
- Community engagement agenda.
- Open reporting procedures.

The Green Lead Program includes special consideration of and planning for Developing countries to assist with implementation and management.

More information is available at: http://www.greenlead.com.

ICMM Sustainable Development Framework

The International Council on Mining and Metals (ICMM) developed the Sustainable Development Framework so its corporate members could provide leadership to improve their sustainable development performance. ICMM was formed in 2001 to represent leading international mining and metals companies.

The Framework comprises four elements: (1) 10 Principles, supported by (2) Public reporting, (3) Independent assurance, and (4) Sharing good practice. By committing to the four elements, ICMM corporate members seek to provide leadership to improve their sustainable development performance.

The Principles were adopted by Council for implementation in May 2003. The reporting indicators were devised in partnership with the Global Reporting Initiative (GRI) in 2004 through a multi-stakeholder consultation process. ICMM members form the largest industry group that has committed to report in accordance with the GRI framework, the highest standard of reporting. The assurance element was approved by ICMM's Council in May 2006 as a pilot procedure.

Underpinning the Principles, reporting and assurance is the final element of the Framework - sharing good practice. This is done through the publication of good practice guidance documents which are developed in close co-operation with members, promotion of ICMM initiatives at conferences, and a good practice website launched in 2004 in partnership with UNCTAD, UNEP and the UK Department for International Development (DFID) - www.goodpracticemining.org.

The 10 Principles for sustainable development are:

1. Implement and maintain ethical business practices and sound systems of corporate governance.
2. Integrate sustainable development considerations within the corporate decision-making process.
3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
4. Implement risk management strategies based on valid data and sound science.
5. Seek continual improvement of our health and safety performance
6. Seek continual improvement of our environmental performance.
7. Contribute to conservation of biodiversity and integrated approaches to land use planning.
8. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
9. Contribute to the social, economic and institutional development of the communities in which we operate.
10. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

Public Reporting entails a common approach for reporting performance against the 10 Principles. In 2005, the ICMM Council approved the Mining and Metals Sector Supplement and committed corporate members to report to the highest level of

reporting: 'in accordance' with the Global Reporting Initiative (GRI) Guidelines and Sector Supplement.

The GRI Mining and Metals Sector Supplement is intended to be used in conjunction with ICMM's 2002 Sustainability Reporting Guidelines. Together the Guidelines and Supplement provide the basis for ICMM members to report their economic, environmental, human rights and social performance against the 10 Principles. They include specific performance indicators as well as principles for good reporting, such as completeness and materiality. ICMM corporate members aim to report in accordance with the GRI 2002 Sustainability Reporting Guidelines and Sector Supplement within two reporting periods.

Independent Assurance entails third party assurance against both implementation of the 10 Principles, and of the commitment to report "in accordance with" the GRI reporting framework. It is based on two tracks - the two tracks reflect corporate members' two commitments to ICMM. It has staged implementation - this is in recognition that corporate members are currently undertaking different levels of assurance and there is a need for gradual convergence towards a common approach to provide flexibility. Assurance also builds on an existing standard - given the desire to build upon existing initiatives and minimize duplication wherever possible, the Procedure incorporates the underlying principles of the AA1000 Assurance Standard – materiality, completeness and responsiveness. It is intended to be a part of a company's existing assurance activities - this will allow members to integrate the ICMM assurance requirements into their current assurance activities.

The final component, Sharing Good Practices, is based on the conclusion that sustainable development requires participation and engagement by companies, governments and civil society alike. Therefore, ICMM's projects are often carried out in partnership or with input from relevant stakeholders. All projects directly support implementation of at least one of the 10 Principles and the results are shared through publications, workshops and participation in events and conferences.

Access to good practice developed by ICMM and others is through a good practice website, which was developed with the United Nations Environment Programme, the UK Department for International Development and the United Nations Conference on Trade and Development. It is available at www.goodpracticemining.org.

More information about ICMM and the Sustainable Development Framework is available at http://www.icmm.com/sd_framework.php.

THE INITIATIVE FOR RESPONSIBLE MINING ASSURANCE

The Initiative for Responsible Mining Assurance (IRMA) is an ongoing multi-sector effort to develop and establish a voluntary system to independently verify compliance with environmental, human rights and social standards for mining operations. Participants include mining companies, jewelry (or jewellery) retailers, NGOs and trade associations.

IRMA seeks to establish mining operations that are consistent with healthy communities and environments, and that leave positive legacies.

The IRMA participants recognize that there are mining operations that meet this standard and some that do not. They recognize the need to create incentives to promote responsible practice. However, there is currently no mechanism to independently verify operations that are likely to achieve this result or to offer these incentives. IRMA seeks to meet this need.

IRMA seeks to create an independent, third party assurance system to ensure that mines operate in an environmentally and socially responsible manner. IRMA seeks to develop a system with input and support from all key sectors. The following principles would underpin this system:

- Independent verification;
- Fair and equitable distribution of benefits to communities (including Tribes/First Nations) and indigenous peoples) while respecting and protecting their rights;
- Effective responsiveness to potentially negative impacts to the environment, health, safety, and culture;
- Enhancement of shareholder value.

IRMA seeks to build on the an existing foundation of research, tools, and initiatives ranging from The Framework for Responsible Mining, to the ICMM Sustainable Development Framework, to the findings of the Mining Minerals and Sustainable Development project, to the Mining Certification Evaluation Project.

The IRMA is an active project, currently working to meet its goals. For more information on current activities and participants, see http://www.responsiblemining.net/.

INTERNATIONAL CYANIDE MANAGEMENT CODE FOR THE MANUFACTURE, TRANSPORT, AND USE OF CYANIDE IN THE PRODUCTION OF GOLD

The "International Cyanide Management Code For the Manufacture, Transport, and Use of Cyanide In the Production of Gold" (Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then- International Council on Metals and the Environment (ICME).

The Code is an industry voluntary program for gold mining companies. It focuses exclusively on the safe management of cyanide and cyanidation mill tailings and leach solutions. Companies that adopt the Code must have their mining operations that use cyanide to recover gold audited by an independent third party to determine the status of Code implementation. Those operations that meet the Code requirements can be certified and certified operations can use a unique trademark symbol. Audit results are available to the public.

The overall goal of the Code is to improve the management of cyanide used in gold mining and assist in the protection of human health and the reduction of environmental impacts. The Code seeks to reduce the potential exposure of workers and communities to harmful concentrations of cyanide, to limit releases of cyanide to the environment, and to enhance response actions in the event of an exposure or release.

Adoption and implementation of the Code is voluntary. Political jurisdictions lacking comprehensive regulations for the management of cyanide used in gold mining may find provisions in the Code helpful in developing their own regulatory programs.

The code is administered by the International Cyanide Management Institute (ICMI). It is a non-profit corporation with a multi-stakeholder Board of Directors. ICMI's prime responsibilities are to:
• Encourage companies to adopt the Code and bring their operations into compliance with its Principles and Standards of Practice;
• Promote the Code within the gold mining industry and with other stakeholders;
• Develop sources of funding for Institute activities;
• Work with governments, NGOs, financial interests and others to foster widespread adoption and support of the Code; and
• Periodically review the Code and revise it as necessary to improve implementation and incorporate new advances in cyanide management

When a company becomes a signatory to the Code, the company's operations are audited by an independent third-party auditor using its Verification Protocol. The auditor determines if the operation meets the Code's Principles and Standards of Practice and should be certified as being in compliance with the Code. Operations found in full compliance with the Code are certified and a Summary Audit Report and Auditor Credentials Form are posted on the ICMI web site. Operations found in substantial but not full compliance with the Code are conditionally certified and must develop and implement a Corrective Action Plan to achieve full compliance. A Summary Audit Report, Auditor Credentials Form and the Corrective Action Plan are

posted on the ICMI web site. The operation becomes certified once implementation of the Corrective Action Plan is confirmed by the auditor.

Companies with multiple operations can select those they wish to certify as in compliance with the Code. This allows a company to seek certification of most of its operations even if one or more cannot be brought into compliance. The Code web site will list all of a signatory company's operations and indicate which it intends on certifying.

Companies that become Code signatories commit to periodic independent third party audits to determine whether their operations can be certified as in compliance with the Code's Principles and Standards of Practice. Audits will be conducted using Verification Protocols developed by the International Cyanide Management Institute (ICMI) by auditors meeting ICMI criteria. Copies of the Auditing the Code and Auditor Criteria are available to the public on the internet. Audits are conducted for initial certification and at three-year intervals thereafter and include a site inspection and a review of applicable documents and records.

The Code program is voluntary and ICMI does not impose penalties. However, an operation that is not in compliance with the Code's Principles and Standards of Practice would not be certified. Non-compliance at an already certified site would result in its de-certification, and de-certification of the operation would be posted on the ICMI web site.

More information is available at: http://www.cyanidecode.org.

ISO 14001

ISO stands for the International Organization for Standardization, located in Geneva, Switzerland. ISO promotes the development and implementation of voluntary international standards, both for particular products and for environmental management issues. ISO 14000 refers to a series of voluntary standards in the environmental field under development by ISO. Included in the ISO 14000 series are the ISO 14001 EMS Standard and other standards in fields such as environmental auditing, environmental performance evaluation, environmental labeling, and life-cycle assessment. The EMS and auditing standards are now final. The others are in various stages of development.

ISO standards are developed through a voluntary, consensus-based approach. Each member country of ISO develops its position on the standards and these positions are then negotiated with other member countries. Draft versions of the standards are sent out for formal written comment and each country casts its official vote on the drafts at the appropriate stage of the process. Within each country, various types of organizations can and do participate in the process including industry, governments (Federal and State), and other interested parties, including various non-government organizations (NGOs). Existing management activities can be incorporated into a standard.

The ISO 14001 standard requires that a community or organization put in place and implement a series of practices and procedures that, when taken together, result in an environmental management system. ISO 14001 is not a technical standard and as such does not in any way replace technical requirements embodied in statutes or regulations. It also does not set prescribed standards of performance for organizations. The major requirements of an EMS under ISO 14001 include:

- A policy statement which includes commitments to prevention of pollution, continual improvement of the EMS leading to improvements in overall environmental performance, and compliance with all applicable statutory and regulatory requirements.
- Identification of all aspects of the community organization's activities, products, and services that could have a significant impact on the environment, including those that are not regulated
- Setting performance objectives and targets for the management system which link back to the three commitments established in the community or organization's policy (i.e. prevention of pollution, continual improvement, and compliance)
- Implementing the EMS to meet these objectives. This includes activities like training of employees, establishing work instructions and practices, and establishing the actual metrics by which the objectives and targets will be measured.
- Establishing a program to periodically audit the operation of the EMS
- Checking and taking corrective and preventive actions when deviations from the EMS occur, including periodically evaluating the organization's compliance with applicable regulatory requirements.
- Undertaking periodic reviews of the EMS by top management to ensure its continuing performance and making adjustments to it, as necessary.

Examples of potential benefits of an EMS based on ISO 14001 include:

- Improvements in overall environmental performance and compliance
- Provide a framework for using pollution prevention practices to meet EMS objectives
- Increased efficiency and potential cost savings when managing environmental obligations
- Promote predictability and consistency in managing environmental obligations
- More effective targeting of scarce environmental management resources
- Enhance public posture with outside stakeholders

More information is available at: http://www.iso.org/iso/en/ISOOnline.frontpage.

The Mining Certification Evaluation Project

The Mining Certification Evaluation Project (MCEP) was a three year research project to investigate the feasibility of third party certification of environmental and social performance of mine sites. As a research activity, it did not attempt to create a working certification scheme, but to establish a knowledge platform for broader international debate and future efforts.

The project began in 2002 with WWF-Australia responsible for the overall management of the project and an MCEP Working Group formed to direct and contribute to the work program. The group concluded that the credibility and effectiveness of certification schemes in other sectors appeared to hinge on three main issues: governance (what are the key governance issues for a certification scheme in the mining sector?); setting standards (can principles and criteria for acceptable social and environmental performance by mine sites be developed that have broad agreement from the Working Group and meet stakeholder expectations?); and assessment and assurance (can an audit protocol be (a) designed and implemented to test the performance of mine sites against these criteria in a manner that is practical and cost-effective? And (b) utilized in a variety of ecological, socio-economic and cultural settings within Australia and internationally?).

GOVERNANCE

The mining sector attracts a wide range of government regulation and is active in the development and implementation of voluntary private initiatives. A review of mining sector private initiatives indicated a rapid growth in the number of initiatives since the early 1990s involving the industry, NGOs and global institutions. A recent trend emerged towards convergence and co-operation between initiatives. Industry concern for reputation and maintaining a social license to operate appeared to be significant drivers and a number of sector-based initiatives sought processes for independent verification. In this context, there appears to be scope for a scheme for third-party certification of mine sites.

An evaluation of existing certification schemes in other sectors highlighted that the fundamental governance issues for any nascent scheme should include appropriate governance arrangements in five key areas:

1. Structure and procedure: multi-stakeholder involvement; participation in the scheme; decision making; and financial structure;
2. Standards and assessment: scheme's requirements; continuous improvement; review processes; selection and accreditation of certifiers; and combined audits;
3. Certificates: communication; and chain of custody;
4. Dispute resolution: appeals process; sanctions for non-compliance; and sanctions for improper certification;
5. Legal issues: transparency; legal liability; and jurisdiction.

The Working Group used the International Council on Mining and Metals (ICMM) Sustainable Development Framework as an organizing structure to develop the MCEP Principles and Criteria. In developing the MCEP Criteria, the Working Group found that in certain areas, minimum levels of performance could be clearly defined. In many areas, however, the issues were deemed to be more contextual. As a result, the Criteria as a whole represent an amalgam of normative and performance standards,

process guidelines and management systems. The Working Group process and the public comment received indicated that consensus is achievable in most areas, but that a few issues would probably prove more difficult. These included preclusion of particular technologies, such as riverine tailings disposal, references to Indigenous people, and the complex issue of 'free, prior and informed consent'. Also, the issue of whether globally applicable standards allow sufficient flexibility for local context and implementation remained open. Most, if not all, members of the Working Group saw considerable room for improvement in the Criteria, even if agreement on directions for change could not be easily reached.

ASSESSMENT AND ASSURANCE

The MCEP framed assessment and assurance in terms of the development of an audit protocol and process, to be tested at a number of mine sites. Six field trials were conducted as part of the MCEP research: four in Australia, one in New Zealand and one in Brazil. The field trials were designed to evaluate the audit process, not the mine sites per se. The field trials indicated that, on the whole, an assessment process based on the MCEP that is practical, cost-effective, and can be used in a variety of mine site settings, should be achievable.

Each field trial highlighted areas for improvement in the assessment process and pointed to issues that would require further consideration in the creation of a mine site certification scheme. These included balancing the degree of assurance against excessive time on site, weighing up the advantages and disadvantages of a scoring system, and establishing the relative superiority of a global standard or a regional/site standard. The integration of a wide range of issues in one assessment and the emphasis on outcomes, performance, stakeholder engagement and employees was found to be a valuable departure from existing mine site assessments, and one which may require new skills and approaches for auditing teams.

The potential value of certification as a reputation benefit was understood by participating mine sites, but interest lay more in practical outcomes for the site itself, such as guidance for improving performance or rationalizing existing initiatives. Overall, the MCEP trials attested to the difficult balance between a standard that can be universally applied and is adaptable to diverse operating circumstances, but that still offers sufficient detail and robustness to serve an assurance function.

IMPLICATION OF KEY FINDINGS

The implications and strategic tasks for the development of a future mine site certification scheme included:

- Integrating a wider variety of international perspectives in any future process;
- Attracting broadly based support and/or membership for a scheme;
- Establishing a viable funding structure for the governance of a scheme;
- Ensuring compatibility with complementary private initiatives;
- Investigating further the feasibility of globally applicable standards, as opposed to regional or local standards;
- Undertaking more work in areas such as free, prior and informed consent, Indigenous people, any limitations on particular technologies or practices, and the level of prescription in some criteria, particularly in the context of a global standard;

- Finding the balance between the costs of audits and the degree of assurance that can be provided; and
- Developing strategies for the participation of Small and Medium Enterprises (SMEs).

The MCEP established that a mine site certification scheme is feasible. The success of future efforts to create a working certification scheme will largely depend on the efforts of those who choose to champion the idea. A broadly based coalition of stakeholders offers the best prospect for success.

More information is available at: http://www.minerals.csiro.au/sd/SD_MCEP.htm.

Principles For The Conduct Of Company Operations Within The Minerals Industry In Meghalaya [*DRAFT*]

The Meghalaya Peoples Human Rights Council is an independent human rights organization in Meghalaya North East India. It wrote the Draft *Principles for the he Conduct Of Company Operations Within The Minerals Industry In Meghalaya* (the IMR; Draft released July 2006) to provide guidance and direction for mining in India and elsewhere. It is a draft "principles paper" and seeks to be a basis for ongoing discussion.

The IRM begins with frameworks for Corporate Social Responsibility, which are policies of companies towards the rights and interests of Indigenous peoples. In practice, this translates into interactions and negotiations between mining companies and Indigenous peoples. The report identifies six distinct approaches which companies might adopt in relation to the rights and interests of Indigenous peoples in order to provide a starting point for the discussion of a Corporate Social Responsibility framework. This approach is based on acceptance by companies that they cannot continue to operate profitably over the longer term unless they can win support for their operations from the wider society, including Indigenous peoples.

The IRM also focuses on processes addressing resource development on Indigenous land. These Principles address issues such as recognition and respect, Indigenous involvement in environmental management, cultural heritage protection, and the need for developers to respect the integrity of Indigenous decision making processes. A central requirement is that developers obtain the free, prior informed consent of Indigenous communities affected by any development proposal. A central goal is ensuring equity between Indigenous and resource development parties. Primary topics include: recognition; respect; free, prior informed consent; indigenous internal decision making processes; economic development and benefits; independent monitoring and performance benchmarks; indigenous involvement in environmental management; cultural heritage protection; fair resourcing/negotiating/contracting; and human rights principles.

The IRM further focuses on a Human Rights Based Approach to Mining on Indigenous and Tribal Peoples Land. This includes human rights principles that are relevant to developing a sustainable relationship between indigenous people and mining companies. They include racial equality and non-discrimination; effective participation; right to protection and maintenance of culture; and self-determination. The document concludes that mining companies committed to incorporating human rights into policy and practice must move beyond the constraints of existing regulatory regimes that are inconsistent with identified Principles and must develop a consensual relationship with Indigenous people.

Finally, the IRM provides a basic set of principles which should be followed by minerals companies regardless of where they are operating or under what circumstances. The goal is not to provide prescriptive standards for individual projects but instead that the Principles provide definitive guidelines (as opposed to technical standards) which companies should follow, such as the guidelines applying to the management of tailings, waste rock, and acid mine drainage.

The IMR concludes that companies should adhere to the most protective standards available, regardless of the source. The IMR requires public disclosure/community right to know to ensure that all commissioned reports, no matter the author, are available to the public. The IRM also requires that the public have the opportunity to participate in all stages of a mine project. Companies should pay for community participation, including establishing trust accounts to enable community/NGO participation. The public should also have the opportunity to participate in corporate general meetings regarding key matters of public interest. Politically the IMR requires that Companies maintain full transparency in their political, legislative, and related activities. Those lending to companies are required to abide by principles of open and fair conduct.

Companies should abide by all relevant international treaties and codes and internationally binding codes of conduct should be developed for Transnational Corporations. Companies should also implement programs for the employment of the local people, including training and an annual audit to measure programs/employment. Mine employees should appropriate training/cultural awareness and environmental workshops. Employees should be bound by codes of conduct as a condition of employment, with appropriate penalties for breaches.

No relocations should be allowed without free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation/terms. Further, companies should not operate any project in areas where any forced removals from land have occurred. An applicable standard to relocation conduct is that no affected person, group or community has their standard of living, economic, culture and social cohesion diminished as a result. Companies must recognize indigenous people and their traditional or customary ownership of land especially where a host government does not recognize the legal status of customary land.

The IRM requires that companies ensure that all royalties and compensation agreements are based on international best practice and that terms and conditions maintain highest achievable by landowners regarding for equity, participation, employment, royalties and compensation. Companies should develop and publish a code of practice for exploration and mining negotiations with communities and NGOs. This policy should include community rights to veto or negotiate land use and ensure that all landowners are fully involved in any negotiations concerning activities that could affect their interests. Separate agreements should be required for mining and exploration stages/activities.

The IMR recognizes that small scale mining is a legitimate and valuable part of the minerals industry. It requires that small-scale mining operations be regulated by the government to ensure their safety and social/environmental protection, and to ensure that large companies do not marginalize or force them out of business.

Environmental standards should “aim towards” ever increasing international best practices. This includes complying with existing agreements/standards, which are admittedly not complete, and developing appropriate standards where gaps exist. Key IMR features include establishing baseline monitoring programs at a very early stage; preventing unacceptable riverine tailings disposal and accepting that mining is not

acceptable unless safe and environmentally sound tailings containment is available; mines must ensure that pollution of riverine, ground-water and marine environments does not occur from waste rock dumps.

Companies must ensure that they make a firm commitment to putting various areas off limits to both exploration and mining. These should include all world heritage listed areas, and most areas listed for indigenous cultural reasons. Where possible there should be buffer areas around such parks and reserves. Further, companies should operate to equitably meet the development and environmental needs of present and future generations. Companies must publicly recognize that mining in its basic form of simple extraction of a non-renewable resource cannot be considered sustainable and should not be portrayed as such. Companies should set goals for waste minimization, recycling and life cycle targets for minerals/mineral products.

The IRM establishes that companies not mine high sulphide ore-bodies unless steps are in place to prevent the effects of acid mine drainage (AMD) and that companies should not be involved in the mining, milling or processing of uranium. The IMR establishes best practices and standards for all major aspects of mining and that companies continuously improve their standards/performance.

The IRM also establishes principles of conduct regarding many aspects of human rights and recognizes that all companies should comply with international standards and agreements. This includes special conditions regarding armed conflict, labor activities, and non-discrimination.

The IRM requires independent monitoring, independent auditing, and independent verification and reporting for all standards and components.

Voluntary Principles on Security and Human Rights

The Voluntary Principles on Security and Human Rights (Voluntary Principles or Principles) seeks to assist companies in maintaining the safety and security of their operations within a framework that ensures respect for human rights. The Principles were developed in 2000 and involve the governments of the U.S., U.K., Norway and the Netherlands; extractive and energy companies; and human rights NGOs. The Principles provide guidance for companies on identifying human rights and security risk, as well as engaging and collaborating with state and private security forces. The participants recognized the importance of the promotion and protection of human rights throughout the world and the constructive role business and civil society -- including non-governmental organizations, labor/trade unions, and local communities -- can play in advancing these goals.

Through this dialogue, the participants have developed a set of voluntary principles to guide Companies in maintaining the safety and security of their operations within an operating framework that seeks to ensure respect for human rights and fundamental freedoms. Mindful of these goals, the participants agreed to the importance of maintaining a dialogue and review the Principles to ensure their continuing relevance and efficacy.

The participants acknowledged that security is a fundamental need, shared by individuals, communities, businesses, and governments alike and recognized that security and respect for human rights can and should be consistent. They understood that governments have the primary responsibility to promote and protect human rights; that all parties to a conflict are obliged to observe applicable international humanitarian law; and that the participants share the common goal of promoting respect for human rights, particularly those set forth in the Universal Declaration of Human Rights, and international humanitarian law.

Companies recognized a commitment to act in a manner consistent with the laws of the countries within which they are present, to be mindful of the highest applicable international standards, and to promote the observance of applicable international law enforcement principles, such as 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), particularly with regard to the use of force. The participants supported voluntary principles regarding security and human rights in the extractive sector, broken into three categories: risk assessment, relations with public security, and relations with private security.

Findings included that the Voluntary Principles are seen as genuinely filling a critical void for companies seeking guidance about managing potential exposure to risks related to their security and human rights practices, especially in countries that are often associated with conflict or alleged abuses. Participation by multi-stakeholders adds credibility but the lack of an audit mechanism may foster the perception among some stakeholders that the Voluntary Principles lack transparency. Most companies had general social responsibility policies in place prior to implementing the Voluntary Principles, but few had specific extant human rights policies. All thought that the Principles needed clearer language and guidance - and that training, implementation guidelines, and host government participation and engagement would be beneficial.

Some companies had taken specific steps to develop or implement programs but most have not set specific timelines for general implementations. Companies are including the Voluntary Principles in at least some of their contracts, particularly with private security providers. For many companies, assessing risks associated with security and human rights is part of a larger risk or impact assessment. Many rely on a variety of different tools and sources of information, including the expertise of local country and regional managers who engage with local stakeholders and NGOs.

The findings identified emerging best practices in implementation, such as incorporating voluntary principles in all private security agreements and risk assessments; government approval of Social Impact Assessments and continued monitoring and/or participation; establishing whistle-blower processes; including The Principles in government agreements with local police; and sharing best practices.

In-country working groups launched in Indonesia and Colombia also made findings regarding Indonesian and Columbian industry and governmental activities. The relationship between government, companies, and NGOs - and the importance of trust between them - played into many of the findings.

More information is available at: http://www.voluntaryprinciples.org.