

The Initiative for Responsible Mining Assurance

Project Summary

The [Initiative for Responsible Mining Assurance](#) (IRMA) is a multi-sector effort, launched in Vancouver, Canada, in June 2006, to seek agreement on a set of environmental, social and human rights best practices for mine sites through a cross-sector dialogue (i.e., parties must discuss and consider issues and reach mutual agreement in order to proceed.) IRMA also seeks to explore voluntary systems or strategies to independently ensure compliance. The details of a potential verification system are currently under discussion and review by participants. IRMA includes mining companies, jewelry retailers, civil society representatives, technical experts and trade associations.

IRMA is governed by a Steering Committee consisting of a representative and alternate from the following five sectors or stakeholder groups: mining industry, jewelry retail, affected communities, labor, and NGOs. IRMA currently exists as an initiative, it does not have a board or organizational standing in a formal sense.

Project Description

IRMA, originally named the Responsible Mining Assurance Initiative, was officially formed in June 2006 after a series of scoping and planning meetings. IRMA has a focus on the large scale mining sector, not on the ASM sector.

IRMA appeared to achieve a number of early breakthroughs within a broader context of tension between a number of participating members—particularly mining companies and civil society groups. These breakthroughs included the following:

- Recognition that there was likely to be a difference in practices implemented at newer mining sites and older sites.
- Recognition of the need to credit improvements in sites.
- Agreement on the issues that were to be considered and discussed—and an initial understanding of areas where agreement was likely to be found more readily and those where agreement would be challenging.
- Willingness to consider all issues, even the more challenging issues.
- Agreement to work from a foundation of current tools and resources such as the [Framework for Responsible Mining](#), the [ICMM Sustainable Development Framework](#), the [Mining Minerals and Sustainable Development](#) project, and the [Mining Certification Evaluation Project](#).

The following principles underpin what IRMA is seeking to achieve:

- 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 has not yet established an agreement as to how assurance or verification (both terms are used interchangeably) will be achieved, although participants report that progress is underway. Some uncertainty is partially due to the fact that a number of other initiatives were moving in parallel with IRMA, including [Global Reporting Initiative](#), efforts of [International Council on Mining and Metals](#) companies to verify compliance with sustainability guidelines, and the launch of the [Responsible Jewellery Council](#) (RJC).

Progress in IRMA has been slower than anticipated which is typical for multi-sector initiatives such as this and may also be due to a lack of adequate funding or financial support for IRMA, which thus far has been essentially volunteer-run. It should be noted that an informal agreement existed to link the mining standards for Responsible Jewellery Council ([RJC](#)) with those under development by the IRMA. A number of organizations and companies are members of both RJC and [IRMA](#).

IRMA members have recently recommitted themselves to advancing their work and have secured new resources. IRMA is currently working to try and finalize a draft set of first-phase standards. These [standards](#) would largely harmonize commitments already in place in a number of participating companies.

[Current members](#) include representatives from the mining, jewelry retail, labor, NGO, and community sectors.

A future challenge is consideration of some of the more challenging issues which include the following: tailings management, community consent and indigenous rights, and protected areas and biodiversity. These are in discussion by IRMA participants as “second phase” standards. A fundamental underlying tension exists around whether or not these issues can be addressed by outright bans or commitments on certain practices; through the use of a decision making matrix or process informed by sustainable development principles; or a hybrid with some practices off limits but a decision-making matrix guiding most future development.

There is also an underlying question as to the ultimate objective of IRMA participants—with some seeking a full-scale certification system like the Marine or Forest Stewardship Council and others seeking something more modest, such as an agreement on a basic set of standards.

Nature of Supply Chain, Products and Issues

Jewelry typically accounts for [70%](#) or more of annual demand for gold, with electronics and dental accounting for approximately [11%](#). The percentage used in electronics has been growing in recent years.

Gold is unusual in that it plays an economic role as a [store of value](#)—creating market and demand dynamics that are different for gold than for metals that are treated as pure commodities. For Example, large above-ground stocks of gold are held by governments and investors.

Silver is more akin to a pure commodity; however there are very few silver mines in the world—most silver today is a [byproduct](#) produced when other metals, such as gold or copper, are the target.

Large-scale industrial sources are typically highly formalized, mechanized, technologically advanced, and capital-intensive. While these sources are therefore relatively easy to identify, metals generally lose track-ability as they move through processing and into the economy. This “loss” can occur in the refining process, in the marketplace (as metals are traded or exchanged), and/or in the manufacturing process as metals are combined or become parts of components or subcomponents of products utilized in consumer products, industrial processes or construction.

In some instances, there may be an ability to create a focused supply chain effort, for example a manufacturer could utilize a specific, marked metal as it leaves a smelter. If a particular smelter processes inflow from a specific mining operation in a separate batch, then a chain of custody is possible (i.e., it can be tracked into, and throughout, the refining process and the manufacturing process). However batch processing, and subsequent chain of custody, is likely to add significant costs to the supply chain. It is worth noting the volumetric approach followed by the [Forest Stewardship Council](#) for wood pulp and paper products, i.e. a given volume or percentage of total volume of “certified” input to a pulp mill or paper mill can allow for the same volume or percentage of total volume of “certified” output, rather than tracing specific molecules of cellulose or batches of wood.

While gold jewelry is a coherent product (i.e., it is comprised of metal), jewelry is not comprised of 100% gold. Gold is blended with other metals to produce a final product with a karat grading or rating. [For example 24 carat gold contains 99.99% pure gold, and 9 carat gold contains 37.5% pure gold.](#) Therefore, when it comes to a particular piece of jewelry, gold track-ability does not address the source or provenance of the non-gold metals.

Once in the economy, gold is easily malleable. In other words even “marked” gold can be re-melted and remixed and therefore lose provenance. For example, jewelry that is certified from a particular source could be re-melted and lose its provenance.

While the description above is based on gold, a similar analysis applies to most other metals. The primary difference is the technology and/or chemicals used to process ore and capture the target

mineral. Most other issues are similar with regard to environmental and social impacts and potential benefits.

While large-scale mines are easy to identify and monitor, small-scale or artisanal mines present [different issues and challenges](#).

Most large-scale gold mines utilize cyanide as a processing chemical, to leach gold from crushed ore. Development of large-scale gold mining can also raise issues related to indigenous rights, effective community participation in decision-making, mining's contribution to sustainable economic development, mining in conflict zones and conflict over natural resources, and other issues ([MMSD](#), [Newmont CRR](#), [ICMM](#), [Enough](#), [NDG](#), [Make IT Fair](#), [Global Witness report](#).) Recent research has also focused on the contribution that mining can make to sustainable economic development and related challenges ([ICMM](#), [Oxfam](#).)

There is one other issue to consider concerning particular metals. It is notable that there has been a particular focus on direct sourcing and certification systems related to precious minerals (diamonds and gold—as well as gemstones). IRMA, on the other hand, seeks to address all metals mining. While an analysis of the market dynamics and economics is beyond the scope of this study this may be a notable distinction. In other words, is there a cost and economic distinction between what is possible with precious minerals and, for example, base metals?

Analysis

Supply Chain Complexity—Steps (*Complex*)

The supply chain is highly complex with regard to material flow for all metals from large-scale operations. There is generally an inability to track or maintain provenance—as the materials mix in processing, trading and/or manufacturing. Therefore this is a valid comparison to EICC-GeSI target minerals.

Formalization of Sector (*Formal*)

The supply chain for participating companies is highly formal but can vary due to the capacity and nature of host governments. Generally speaking the participating companies work from the premise that even where government capacity is weak they will operate in a fairly formal manner in regard to compliance, reporting, payments, etc. EICC-GeSI target minerals are likely to originate from sources that are both highly formalized and informal—with greater social and environmental challenges in the informal sector. Therefore IRMA is relevant for EICC-GeSI companies with respect to the more formalized mining sector, but less so for the informal sector.

Material Processing, Coherence (*Mixed*)

Metals are typically mixed in processing, fabrication and trading—this is true for all EICC-GeSI target minerals. Therefore any outcomes from IRMA are likely to be useful for metals used by the electronics sector.

Significance in Product Composition (*Coherent for Jewelry, Varied for other products*)

Metals in an electronics product are typically parts of or ingredients in subcomponents or used to connect components. Each metal typically represents a fraction of the product. Jewelry products, such as gold and diamonds, typically represent a visible and significant portion of the consumer product. IRMA seeks to target all types of metals mining. In this sense finding, outcomes or systems developed by IRMA may be highly relevant to EICC-GeSI.

Issue/Source Geography (*Relevant*)

IRMA has no limit on geography and is therefore highly relevant to target metals for electronic products—which are similar. The limitation is in IRMA’s focus on large scale mining, the ASM sector is also relevant to EICC-GeSI companies.

Stage of Development, Maturity (*Early*)

IRMA has been active for over three years but is still in very early stages of standards development. Note: The early history of the FSC shows similar struggles coupled with periodic bursts of momentum.

Nature of Governance (*Multi-Sector, Informal*)

IRMA is governed by its participating members who include NGOs, mining and jewelry company representatives, and some industry associations, and technical experts. A steering committee is selected from among the members.

The multi-sector nature of its governance system is a strength with regard to legitimacy. However, it may also be a cause of its slow pace. IRMA appears to have suffered from the informality of its governance and a lack of resources.

Standards Breadth or Focus (*Multi-Issue: Environmental and Social Objectives*)

The initial IRMA standards are more narrowly targeted but the longer term objective of IRMA is to address all of the key environmental and social issues criteria for mine sites. Therefore IRMA outcomes could be highly useful to EICC-GeSI as it develops its broader social and environmental sourcing program.

Nature of Standards/Program Development (*Multi-Sector*)

Due to the multi-sector nature of IRMA, any outcomes are likely to be highly credible with many stakeholders.

Approach to Verification (*Third Party*)

There is a general agreement in IRMA that third-party verification systems increase credibility.

Key Findings

IRMA findings, outcomes or agreements would be highly credible, with many stakeholders, if they are achieved—due to the multi-sector nature of IRMA. At the same time, IRMA exhibits the challenges that come with multi-party initiatives.

There is some evidence that part of IRMA's challenge resulted from lack of adequate attention to process and governance issues, after IRMA begin to experience difficulties. It is not clear if linkages with electronics sector OEMs would bolster or hinder IRMA.

IRMA's first set of standards or agreements, if they are achieved, could be a useful starting point for EICC-GeSI companies. It is also notable that IRMA has recently agreed to a plan addressing a set of more challenging issues in a second phase. The results of this consideration could be very useful to EICC-GeSI.

The original agreements that served as the basis for launching IRMA could be useful if EICC-GeSI companies wish to participate in, or initiate, a broader certification system—beyond conflict issues.

The mine sites standards as well as any outcomes related to site-based verification and reporting will probably be useful to EICC-GeSI companies in regard to metals sourcing. This is likely to be truer for metals sourced from large-scale operations than the ASM sector.

Interestingly, EICC-GeSI's early focus on supply chain transparency and accountability, in order to address the issue of conflict metals, and any strategies or systems that are developed, may provide useful findings to those working in IRMA.

It would be useful, before proceeding, for EICC-GeSI companies to consider the type of standards or expectations they may seek to include in sourcing criteria—noting, for example, the tension between process and standards based criteria.

A useful step could be to engage with IRMA participants to discuss the timeline and likely outcomes.