

CANADA
National Reporting to CSD-18/19
Thematic Profile on Mining

1 Introduction

The settlement and development of Canada is inextricably linked to the discovery and exploitation of natural resources. Beginning with fish and fur, and continuing with minerals, petroleum, forests and other resources, Canada's history is closely tied to the development of our natural resources. Today, a strong natural resources sector, together with healthy manufacturing and service sectors, make for a strong economy overall. The mining sector continues to play an important part in the overall economic development of Canada. In 2008 it contributed C\$40 billion to Canada's gross domestic product (3.3% of national GDP), and provided more than 351,000 direct jobs for Canadians. The industry supports more than 115 rural, northern and Aboriginal communities across Canada.

Natural resources development in Canada is anchored in law and practices on sustainable development. First defined in [*Our Common Future*](#), the 1987 World Commission on Environment and Development report known as the Brundtland Report, sustainable development has become the operating paradigm for natural resource industries in Canada.

The [*Whitehorse Mining Initiative*](#), a process initiated in the early 1990s in which the mining industry, senior governments, labour unions, Aboriginal peoples and the environmental community discussed ways to seek a sustainable mining industry, endorsed sustainable development, but also went farther. It identified the fact that the social, economic and environmental dimensions are constantly changing, requiring the ability to recognize, anticipate and respond to change. Sustainable development is thus seen not as a static present state, but as an ever-changing system.

In Canada, the concept of sustainable development has been integrated into federal government policies, programs, and legislation. Sustainable development principles form the cornerstone of Canada's environmental assessment legislation, the [*Canadian Environmental Assessment Act*](#). The sustainable development principles are also reflected in provincial/territorial legislation. In addition, the [*Minerals and Metals Policy of the Government of Canada: Partnerships for Sustainable Development*](#) recognizes that the continued use of Canada's mineral resource endowment must proceed within a sustainable development framework.

Provincial governments are responsible for the exploration, development, and extraction of mineral resources, and the construction, management, reclamation, and closeout of mine sites in their jurisdiction. The federal government's responsibilities pertain to:

- international affairs, trade, and investment, including development assistance;
- fiscal and monetary policy;
- science and technology;
- Aboriginal affairs;
- Crown corporations and federal lands;
- environmental protection and conservation (a shared responsibility with the provinces);
- fisheries and fish habitat management;
- nuclear energy, including uranium mining; and
- regulation of all activities related to mineral development in the territories.

The federal, provincial, and territorial governments are key partners in the sustainable development of minerals and metals in Canada. The ability of Canada to transform its resource wealth potential into sustainable benefits for its citizens, while at the same time respecting the need to protect the environment is based on an approach that recognises that good governance policies and legislation are key factors towards ensuring that the benefits from mineral resource development enhance the contribution of mining, minerals, and metals to sustainable development.

2 Minerals and Metals in the Canadian Economy

The industry's C\$40 billion contribution to Canada's gross domestic product in 2008 includes C\$9 billion in mineral extraction and \$31 billion in mineral processing and manufacturing. Internationally, Canada is one of the world's leading mining countries and ranks among the largest producers of minerals and metals. The industry accounts for 19% of annual Canadian goods exports. Key exports in 2008 include aluminum, nickel, copper, gold, uranium, coal, potash, zinc, diamonds, iron and steel, and iron ore. Exports of these products in 2008 each ranged from C\$1.9 billion to C\$17 billion in value. Consequently, an estimated 70% of Canadian port volumes and 55% of rail freight revenues are generated by the mining industry. As well, some 3140 suppliers provide expertise to the industry, including hundreds of engineering firms, environmental firms, and legal and financial firms. Canada was the leading destination for global exploration spending in 2008, attracting 19% of world spending, followed by Australia at 14% and the United States at 7%.

While the industry is important at the local community level, it also contributes to the economy of Canada's larger cities. Toronto is a global hub for mining finance - the Toronto [Stock Exchange \(TSX\)](#) has handled 81% of worldwide mining equity transactions over the past five years. Vancouver is home to the world's leading cluster of exploration companies, while Montreal houses important aluminum and iron ore companies, Edmonton has become a global centre for oil sands expertise and Saskatoon for uranium and potash. Mining is also the largest private-sector employer of Aboriginal Canadians and stands to offer increased opportunity to this segment of Canadian society.

Mining and its related industries are important contributors to federal, provincial and territorial coffers. According to a recent study for the [Mining Association of Canada](#), the industry paid an estimated C\$11.5 billion in taxes and royalties to federal and provincial/territorial governments in 2008. Including the fourth stage of industry activity, fabricated metal product manufacturing, would add a further amount of around C\$2.1 billion. Average weekly wages and salaries in the mining industry were \$1,347 in 2008. The average weekly earnings for a mining industry worker in 2008 were 44%, 42%, 35% and 33% higher than those of workers in the forestry, manufacturing, finance and construction sectors respectively.

Canadian mining companies are active investors in research and development. Companies invested a total of C\$648 million in 2006, the most recent year for which reliable data are available. Statistics Canada reports that 6,848 R&D employees work in the minerals and metals industry, including the fabricated metals products segment. This is higher than individual totals for the agri-food, oil and gas, electrical equipment, automotive, aerospace and pharmaceutical sectors. (For more information about the state of the Canadian mining industry, see the [Mining Association of Canada](#) report on Facts and Figures 2009).

While Canada's minerals and metals sector holds a prominent global position and an optimistic future, merely possessing a rich resource endowment will not ensure socio-economic success, a higher quality of life and a healthy environment for Canadians. Given the desire to continue to derive benefits from Canada's mineral and energy resource potential, the way we harness and manage that endowment matters now more than ever. In the modern knowledge-based economy, the development of new innovative ideas, skills and technologies through science and technology investments holds the utmost importance across the value chain from exploration and extraction to end use and recycling.

Canada's [geoscience activities](#) play a central role in identifying and evaluating new energy and mineral resource deposits and support the environmental, social and economic objectives of the federal government by focusing its portfolio of science and technology programs and services on innovative projects that improve the quality of life of Canadians. These activities, many of which cut across various sectors of the Canadian economy, are essential to Canada's economic, social and environmental prosperity. By providing enabling technologies and scientific research, the sector shares its knowledge and expertise in partnerships with clients, both at home and abroad. For example, the Government of Canada committed C\$25M over five years to extend the mission of the [Targeted Geoscience Initiative \(TGI\) Program](#) with a focus on base metal reserves in established mining communities. The TGI provides integrated geoscience knowledge pertaining to areas of high base metal potential, with the intent of stimulating private-sector resource exploration.

The Government of Canada is also investing C\$100 million over five years (2008-2013) in its new [Geo-mapping for Energy and Minerals \(GEM\)](#) program to provide the geoscience information necessary to guide investment decisions leading to the discovery and development of new energy and mineral resources. GEM will be delivered federally by the [Geological Survey of Canada \(GSC\)](#) and the [Polar Continental Shelf Project \(PCSP\)](#), [Earth Sciences Sector \(ESS\)](#), [Natural Resources Canada \(NRCan\)](#).

The Geological Survey of Canada (GSC) is the Government of Canada's premier agency for geoscientific information and research, with world-class expertise focusing on geoscience surveys, sustainable development of Canada's resources, environmental protection, and technology innovation. The provincial and territorial geological surveys function as the principal source of basic geological knowledge for their jurisdictions. The GSC and [provincial and territorial geological surveys](#) work closely to capitalize on the complementary and differing mandates. This cooperation enhances the competitiveness and economic and social well-being of each respective jurisdiction and Canada through documentation of, and access to, high quality geoscience data and knowledge.

2.1 Mining Governance in Canada

Constitutionally, Canada is a confederation, with two levels of government with authority to make laws, namely, at the federal level and at the provincial/territorial level as enshrined in the [Canadian Constitution](#). The federal government has responsibility for such matters as fiscal and monetary policy, banking, criminal law, fisheries, navigable waters, inter-provincial and international trade and commerce, federal lands, science and technology and international treaty-making. In the area of mining, the federal government has authority over uranium mining, mining activities in two of the three territories and offshore, mining on federal lands, and fiscal policies to stimulate investment, encourage production and enhance competitiveness and trade. Some of the federal responsibilities related to fisheries, protected areas and the environment also apply to mining projects.

The provinces have authority with respect to provincial taxation, the use and management of provincial lands, the use and management of natural resources, property and civil rights within the province, civil law, and intra-provincial trade and commerce. In the case of mining, provinces own and manage the resources, make land-use decisions, issue licences and permits, conduct monitoring of activities, collect mining royalties and provincial taxes, and are responsible for health and safety issues.

2.2 Canada's Fiscal Regime for Mining

Historically, the challenge within Canada has been to identify an effective and transparent way to collect taxes, royalties and other revenues, while ensuring that the revenues were distributed in an equitable manner. Canada's fiscal regime recognises the payments made to the various governments and ensures an effective collection of revenues. Once the revenues are collected, a system of equalisation payments ensures that a significant part of federal government revenue is distributed equitably to provinces, thereby allowing a similar level of government services across the country.

The Canadian tax rules applicable to the mining industry reflect three significant levels of taxation (federal, provincial/territorial, and municipal) recognising the specific characteristics of mining and the historical manner in which they developed. Some of these rules, such as [flow-through shares](#) to support exploration and mine development exist only in Canada.

Mining is a highly cyclical and capital-intensive industry, with a long lead time between initial investment and commercial production. This is recognized in the Canadian income tax regimes, both federal and provincial, which provide a generous treatment of exploration and other intangible expenses, and allow mining companies to recover most of their initial capital investment before paying a significant amount of taxes. They also contain provisions to help mitigate the negative financial effects of fluctuating prices and to facilitate the reclamation of mine sites. Finally, the provincial mining tax and royalty regimes are principally based on net production profits rather than on gross revenue.

The Fraser Institute survey of mining executives from 658 companies, released in February 2009, rated Canadian jurisdictions among the world leaders for best policy environment for mining investment, with political stability and security being important variables in this regard. This stems from a combination of low statutory tax rates, narrow tax base, profit-based royalty regimes, and generous front-loaded tax incentives. For instance, Canada generally allows the mining companies to fully recover their capital investment before paying any significant tax; Canada's federal corporate income tax rate currently is only 19%, and it will be reduced to 15% by 2012; Canada's provincial and territorial corporate income tax rates vary from 10% to 16%; the combined federal-provincial income tax is still among the lowest of OECD countries producing minerals; provincial and territorial mining tax/royalty are mainly profit-based; operating losses can be carried back 3 years (unique to Canada) and forward 20 years for income tax purposes.

Canada encourages investment in [mineral exploration](#). Exploration expenditures are 100% deductible for tax purposes, even before the start of commercial production. The flow-through share mechanism allows mining companies to flow the eligible exploration expenditures through to their individual investors for deduction against their personal taxable income. In addition, the [Mineral Exploration Tax Credit](#), a temporary 15% tax credit for surface exploration linked to the flow-

through shares provides additional benefits. Furthermore, a number of provinces also have their tax credit that harmonizes with the federal package, which makes the individual's net cost of flow-through shares investment less than half of their initial amount. Flow-through shares are particularly helpful to junior exploration companies when commodity prices are low and raising equity is difficult.

Canada's competitive tax policy has contributed to [the TMX Group](#) becoming one of the largest stock exchanges for the raising of equity for mineral exploration and development in the world. Canada has consistently ranked as the world's most preferred destination for mineral exploration. Over C\$2.5 billion was spent in Canada on exploration and deposit appraisal in 2008. The year 2008 was a year of rationalizing and pulling back on planned exploration budgets by mining companies for international and domestic projects compared to the previous year. The larger Canadian-based companies planned to spend a total of US\$4.7 billion and the smaller Canadian-based companies planned to spend US\$720 million for a total of US\$5.5 billion (43% of the US\$12.6 billion world total and more than for any other country or region surveyed). In total, there were 1300 large and small companies listed on Canadian stock exchanges in Canada in early 2009. At the beginning of 2009, these companies held interests in more than 8300 mineral properties worldwide.

3 Canada's Mining Sector and the Environment

In the 1960s and early 1970s, the environmental movement in North America targeted industrial and natural resource processes that could be detrimental to the environment. The image of mining and its legacy in terms of its environmental footprint included pictures of deep scars to the landscape and unmanaged piles of tailings and equipment left behind when mining companies simply walked away once the ore reserves were depleted or mining became unprofitable. These scars rendered the land not only unfit for any beneficial use to the local communities; it also undermined their ability to extract a living from the land and left an environmental legacy for future generations to address. Related problems such as acid rock drainage and contaminated sites often polluted the connecting water basins in the region beyond the original mining property.

To address these legacy issues several initiatives have been undertaken related to acid drainage and abandoned and contaminated sites. For example, the [Mine Environment Neutral Drainage \(MEND\)](#) is a multi-stakeholder partnership that has developed technologies to predict, prevent, treat and control acidic drainage. Another example is the [National Orphaned and Abandoned Mines Initiative \(NOAMI\)](#). Canada is well known for establishing multi-stakeholder initiatives to address issues of national importance. NOAMI is a good example of how a collaborative approach to the legacy of past mining practices can advance the objectives of sustainable development. With the establishment of NOAMI in 2002, the Canadian government signalled its commitment to address this serious environmental issue. NOAMI is a cooperative Canadian program that is guided by the [National Orphaned/Abandoned Mines Advisory Committee](#) comprising the mining industry, federal/provincial/territorial governments, non-governmental organizations, and Aboriginal Canadians. As part of the initiative, guiding principles were developed for meaningful community involvement in planning for and rehabilitating orphaned and abandoned mines. The principles are published in the pamphlet ["Best Practices in Community Involvement"](#). There are a number of concrete examples in the [NOAMI Performance Report 2002-2008](#).

The regulatory environment is a key component of any government to influence behaviour and ensure that decisions taken balance economic, social and environmental concerns. Environment is a shared jurisdiction between the federal, provincial/territorial governments. This adds to complexity and over the past several years much work has been undertaken to look for ways to improve efficiency of decision making as it relates to environmental assessment and regulatory regimes that most mining projects must adhere to within Canada (see section 3.1 for more details).

These initiatives were consolidated into the [Regulatory Improvement Initiatives across Canada document](#) for the purpose of sharing best practices and lessons learned. As evidenced in the report, a multitude of regulatory improvement initiatives are underway or planned across Canada. Some initiatives are energy- or mining-sector specific while others are wide-reaching with longer-term regulatory frameworks in mind. Viewed in their entirety, this collection of initiatives demonstrates an abiding commitment to implementing more streamlined, transparent, timely, and certain regulatory approval processes at all levels of government in Canada.

In 2006 the Government of Canada announced an investment of C\$150 million to provide capacity to departments and agencies for environmental assessments, regulatory and aboriginal consultation activities required for major resource project reviews, and announced the establishment of the [Major Projects Management Office \(MPMO\)](#). The MPMO is a Government of Canada organization whose main roles are to provide overarching project management and accountability for major resource projects in the federal regulatory review process and to facilitate improvements to the regulatory system for major resource projects. The MPMO works in collaboration with other key federal departments and agencies to advance the principles of transparency, predictability, timeliness, and accountability in the Government of Canada's approach to the review of major resource project applications.

3.1 Environmental Assessment and Regulatory Regimes in Canada

As mentioned in 3.0, the environmental assessment and regulatory regime in Canada is complex for major development projects. These are designed to apply for the entire life cycle of the mine, from the initial planning to final closure and remediation. Closure and remediation are not issues that are best addressed at the end of a mine or even during the course of operations. They are issues that need to be assessed and decided upon at the outset so that operations proceed in a manner that supports and minimizes the costs of an approved closure/remediation plan and addresses potential impacts to the environment early prior to irreversible decisions.

A key piece of environmental legislation is the [Canadian Environmental Assessment Act](#) (CEAA), which is the legal basis for the federal environmental assessment process (EA). CEAA came into force in 1995 and has evolved since then. Legislative amendments were introduced in 2001 and came into force on October 31, 2003 that strengthened the process. CEAA and its associated regulations outline the responsibilities, requirements, and procedures for the environmental assessment of projects; and establish a process for assessing the potential environmental effects of projects in which the Government of Canada has a decision-making responsibility.

For mining, the “trigger” for an environmental assessment under CEAA is often related to obtaining a federal permit/authorization or license such as [Navigable Waters Protection Act](#) permits, [Explosives Act](#) licenses, or [Fisheries Act](#) authorizations. As well, all mining development projects will likely require provincial permits/licenses and therefore are subject to a provincial or territorial

environmental assessment. In most provinces, [cooperative agreements](#) between the federal and provincial governments have been established so that projects subject to both pieces of legislation are assessed under one environmental assessment. Where such agreements have not yet been established, federal and provincial governments typically cooperate informally to ensure coordination of environmental assessment processes.

While EA has gone a long way to ensure that consideration and management of all the lifecycle impacts of a mine have been duly considered at the outset, experience has also shown that, too often, mining companies could close and go bankrupt before completing the remediation work that had previously been approved. To prevent this from happening, Canada now requires what are called financial surety instruments. These ensure that there will be sufficient funding available at the closing of a mine to complete the approved closure and remediation plans, which will have been designed to mitigate or minimize any potential adverse environmental impacts.

Environmental assessment and regulatory regimes have evolved over the past few years to address many of the environmental concerns related to development projects. For mining, this includes the [Metal Mining Effluent Regulations \(MMER\)](#) enacted in 2002 under section 36 of the *Fisheries Act*. These regulations replaced the Metal Mining Liquid Effluent Regulations (MMLER), which had been in place since 1977. The MMER apply to all operating metal mines in Canada, whereas the MMLER applied only to those that began operation after 1977 and those that did not use cyanide in the milling process. The MMER apply to all Canadian metal mines (except placer mines) that exceeded an effluent flow rate of 50 m³ per day at any time after the Regulations were registered. The MMER prescribe authorized concentration limits for deleterious substances in mine effluents that discharge to waters frequented by fish. The regulated parameters are arsenic, copper, cyanide, lead, nickel, zinc, total suspended solids (TSS), Radium 226, and pH. Mines subject to the MMER are also required to conduct Environmental Effects Monitoring (EEM) programs in accordance with prescribed criteria. The objective of EEM is to evaluate the effects of mining effluent on the receiving aquatic environment, specifically with regard to effects on fish, fish habitat, and the use of fisheries resources. These regulations are among the most comprehensive and stringent national standards for mining effluents in the world.

In support of the MMER, in 2009, Environment Canada published the [Environmental Code of Practice for Metal Mines](#) that includes subjects that are not dealt with in the MMER that may have an influence on the environmental impact of mining operations.

3.2 The Role of Science and Technology

Science and technology plays an important role in supporting these policies and regulations and ensuring the responsible and sustainable development of Canada's minerals and metals resources. At the federal level, organisations such as CANMET-Mining and Minerals Science Labs ([CANMET-MMSL](#)) provide quality R&D and sound scientific advice to the minerals and metals industry, to provincial, territorial, and other federal departments involved in promoting or regulating these industries, and to the Canadian public. Areas of research include improvements to health and safety in mining operations, the development of technically sound solutions to a range of environmental challenges and improved industry competitiveness through enhanced productivity and efficient regulations.

There are several initiatives, often in partnership with a range of stakeholders, which are specifically related to addressing and advancing issues related to mining and the environment. These initiatives include:

- [Mine Environment Neutral Drainage \(MEND\)](#) Program. Acidic drainage has long been recognized as the largest environmental liability facing the Canadian mining industry. Since 1989, the MEND multi-stakeholder partnership has developed technologies to predict, prevent, treat and control acidic drainage. Tremendous progress has been made; technologies are now in place to open, operate and decommission mines in an environmentally sound manner. The current MEND program focuses on Canadian national and/or regional information needs, with a strong emphasis on technology transfer. Through a network of Canadian experts, top research priorities have been identified and are used as a basis of the annual work plan. Technology transfer is achieved through workshops, technical reports, information-sharing and a website. MEND is also a partner in the Global Alliance, an international partnership among organizations involved in acidic drainage research. Funding for the MEND Secretariat is shared by the federal government and The Mining Association of Canada.
- Canada's [Green Mining Initiative \(GMI\)](#), announced in May 2009, will help develop and demonstrate new green technologies and processes, creating new opportunities for Canadian mining technology and service industries. Building on the success of multi-stakeholder initiatives, the Green Mining Initiative will reduce environmental impacts of mining through footprint reduction, innovation in waste management, ecosystem risk management, as well as mine closure and rehabilitation. Within these main areas, a number of broader issues will be covered such as finding alternatives to tailings placement, and dealing with the particular issues of mining in the north, such as permafrost and climate change. GMI aims to find improved ways to protect and remediate the environment, and to find better alternatives to existing technologies for mineral extraction, mineral processing and environmental reclamation. In September 2009 the Canadian Mines Ministers endorsed GMI.
- The [Canada Mining Innovation Council \(CMIC\)](#) is a network of industry, government and academic leaders working together to enhance the competitiveness of a responsible Canadian mining industry through excellence in: research, innovation, commercialization, and education. Incorporated in 2009 as a not-for-profit corporation, CMIC's objectives are to:
 - Increase mining research, innovation and commercialization efforts to strengthen Canada's pre-eminent role as a global leader in mineral exploration, mining and knowledge-based services and technologies and
 - Increase the supply of highly qualified graduates from mining related faculties to meet the significant demands of industry, governments and academia for today and into the future.

The CMIC Transition Board developed a [Pan-Canadian Mining Research and Innovation Strategy](#), consisting of goals, expected results, and draft actions in five priority areas:

- Targeted Areas for Research and Innovation (with particular focus on tailings management and energy efficiency);
- People and Skills;
- Collaboration;
- Innovation Systems and Culture and;

- Brand, Visibility and Reputation.

These collaborative R&D and innovative activities related to mining will significantly improve the mining sector's reputation and their ability to secure a "social license to operate" both now and into the future. Recent studies conducted have found that Canadian communities support mining; however, there remain significant concerns about the environmental and social impacts.

4 Social and Community Issues Related to Mining

When dealing with the social dimension of sustainable development it is important to remember that the main theme is people and how development can contribute to their lives and their opportunities to make the present and the future better. The impacts of development activities can occur at several social scales, including individuals, families, communities, Aboriginal peoples, cultures, and society as a whole. It must also be noted that the social dimension is subjective, qualitative, difficult to measure, and there are diverse views by the various players and stakeholders.

At the 2008 Energy and Mines Ministers' Conference, Ministers recognized that public perceptions can have significant impacts on the competitiveness of the mining industry by affecting its ability to secure a social license to operate and recruit increasingly scarce human resources. The Social Licence Task Group's report "Earning the Social Licence to Operate: Lessons from Selected industry sectors" highlighted how different stakeholders in a range of industries have helped these industries address reputational challenges and secure a social licence by:

- Instituting a range of performance improvements. Performance improvements included more effective government regulation and industry voluntary initiatives, investments in science and technology, more equitable distribution of risks and benefits and building community capacity to participate in decision making.
- Communicating these improvements to the public in a credible way, while also addressing misconceptions. Communication efforts by all parties should be transparent, credible and evidence-based, with the public clearly responding better to information developed collaboratively by multiple stakeholders; and
- Developing strong relationships based on mutual benefits. Relationship building efforts included the creation of multi-stakeholder platforms for collaborative problem-solving; enhanced mechanisms for public involvement and consultation; and initiatives to improve communication between communities and companies.

4.1 Aboriginal Consultation in Mining Sector Activities

The Government of Canada consults with Canadians on matters of interest and concern to them, which includes the environmental and social impacts of mining. Consulting is an important part of good governance, sound policy development, and decision-making. In addition to good governance objectives, Canada has statutory, contractual and common law obligations to consult with Aboriginal groups. The process leading to a decision on whether to consult includes a consideration of all of these factors and their interplay.

In 2004, the [Supreme Court of Canada](#) ruled that the Crown, federal and provincial, has a legal duty to consult and possibly accommodate First Nations, Métis, or Inuit communities when the Crown

has “real or constructive knowledge” of an established or potential Aboriginal Right and contemplates conduct that might adversely affect it.

4.2 Promoting Aboriginal Community Engagement in Minerals and Metals Activities

Reliance on natural resources constitutes the primary engine for socio-economic development and regional economic diversification for many communities across Canada, including Aboriginal communities. Mining plays an important role in the economic prosperity and social development of Canadians, especially in rural (often remote), northern, and Aboriginal communities, as minerals and metals industries are among the largest actual and potential employers, offering a variety of short- and long-term employment opportunities. For example, according to the 2006 Canadian Census, Aboriginal employment accounted for 7.5% of the total mining labour force compared with 5.1% in 2001.

Regardless of the current economic tide, studies by organisations such as [the Mining Industry Training and Adjustment Council](#) show that the mining industry will lose an estimated 40% of its skilled workers within the next decade due to an aging workforce and retirement. The close proximity of Aboriginal communities to exploration and mining development and the exponential growth of the Aboriginal population can help meet this emerging labour shortage.

The Government of Canada plays the key role of catalyst and facilitator for encouraging meaningful dialogue between stakeholders and promoting Aboriginal engagement in minerals and metals exploration and mining activities. The Government of Canada has developed a network for collaboration with other natural resources sectors, Provinces and Territories, sector councils, exploration/mining companies and mining industry associations, Aboriginal leaders, organizations, and communities.

Several initiatives, information products, and tools have been developed in recent years to assist and ensure increased and more meaningful Aboriginal community engagement and participation in the development of mining resources in or close to their communities, such as:

- **Mining Employment Opportunities Workshops:** The [Aboriginal Human Resource Council \(AHRC\)](#) brings together Aboriginal Human Resource practitioners, First Nations community leaders, industry and other stakeholders to discuss collaborative partnerships and methodologies related to Aboriginal inclusion and labour-force development.
- **Mining Video for Aboriginal Communities:** Produced in collaboration with the Government of Ontario the information video [Our Community . . . Our Future: Mining and Aboriginal Communities](#) provides assistance to Aboriginal communities to learn about the mining sequence and make informed decisions about their participation in mineral development activities and opportunities available to them.
- **Mining Information Kit for Aboriginal Communities:** The [Kit](#), which was developed to strengthen the ability of Aboriginal peoples to understand all aspects of mining development, is being used by Aboriginal/indigenous peoples, communities and organizations, mining companies and governments both nationally and internationally, and is in the process of being adapted in some countries around the world.

- **Information Bulletins on Aboriginal Peoples and Mining Activities:** As part of its role in the dissemination of national statistics and knowledge about the mining and mineral processing industries, Canada produces various [information bulletins](#) on leading practices between Aboriginal communities/peoples and the mining industry.
- **Mining Industry Human Resources Guide for Aboriginal Communities:** A web portal along with [The Mining Industry Human Resource Guide for Aboriginal Communities](#) is intended to be a resource for Aboriginal community organizations, career planners and practitioners, community leaders and individuals. The portal provides basic information about career opportunities and training/education requirements for individuals considering employment in mining.
- **Voluntary Agreements Map:** Agreements between mining companies and Aboriginal communities are listed in an [on-line Aboriginal Communities and Minerals and Metals Activities Map Portal](#). The map portal provides geographical and vital data on Aboriginal communities and producing mines across Canada as a tool to enable Aboriginal communities, the mining industry, and other stakeholders to identify potential opportunities for collaboration on mineral development projects.

In September 2007, Canadian Mines Ministers unanimously concurred on the vital importance of engagement between governments, industries, communities and Aboriginal peoples to ensure the viability of the mining industry. As a result, Ministers directed that approaches be explored, including the development of best practice involving government, industry and Aboriginal peoples. A compendium of 16 case studies was prepared on [Aboriginal engagement in the mining and energy sectors](#) involving governments, communities, and industry covers a range of case studies from preliminary geoscience mapping to exploration, operation, and the rehabilitation of abandoned sites. These case studies illustrate the mutual benefits of investing in stronger relationships and partnerships between governments, Aboriginal peoples, and the industry. The approach to Aboriginal engagement varies from project to project and over the mining sequence. In some of the case studies presented, significant aspects of Aboriginal engagement in the mining sector are defined through formal negotiated agreements such as Memoranda of Understanding (MOU) or Impact and Benefits Agreements (IBAs). Other cases illustrate the importance of mutual understanding and respect, openness, and continuous dialogue in building and maintaining successful relationships between companies and Aboriginal communities.

For mining companies, early engagement is the first step towards establishing trust and rapport with local and Aboriginal communities. This is especially important to consider prior to the commencement of and during an environmental assessment. Early and continuous engagement through out the lifecycle of a mining project can help build strong relationships with the communities.

4.3 Industry Initiatives to Address Social and Environmental Performance

Improvements in mining require that all stakeholders, especially industry, participate and take concrete steps to address issues and concerns raised by other groups in civil society. There are several industry-led initiatives that are making a difference in changing the mining landscape and operating culture.

For example, the [Mining Association of Canada](#)'s award winning [Towards Sustainable Mining](#) (TSM) initiative is designed as a stewardship initiative, and aims to sustain the industry's role as a leading economic player by increasing public trust in its ability to manage the environmental and social issues important to Canadians. It includes performance indicators and targets in the areas of [tailings management](#), [energy use and greenhouse gas management](#), [external outreach](#) and [crisis management](#). TSM is developing indicators related to engagement with Aboriginal communities, which will add a clear social dimension to the initiative.

Another example of an industry-led initiative to address environmental and social performance is the [e3Plus](#) initiative launched by the [Prospectors and Developers Association of Canada](#). Designed as a framework for responsible mineral exploration, e3Plus assists exploration companies to continuously improve their social, environmental, and health and safety performance and to comprehensively integrate these three aspects into all of their exploration programs.

These initiatives, along with individual, company-led initiatives are contributing to a more positive image of mining and will advance Canada's position of realizing sustainable development through the integration of economic, social, and environmental goals. In a recent study on Performance Improvements in mining, a survey was conducted to seek views of Canadians about mining. Generally Canadians support mining and recognize that mining contributes to economic development; however, concerns remain about the environmental impacts of mining activities. This work is continuing to pursue how mining can address these issues through new green technologies, policy, and regulatory changes.

5 Canada's Prominence in Global Mining

The Canadian mining industry is active in over 100 developed and developing countries, and is involved in over 8,000 exploration projects and mining operations worldwide. Mining, with over C\$66 billion in direct investment abroad in 2008, represents over 50% of Canadian direct investment abroad in natural resources. In its activities in developing countries, the industry can be the source of positive economic and social benefits, including poverty reduction, economic diversification, contributions to the fight against HIV/AIDS, and the enhancement of local infrastructure and social and health services. Nonetheless, because of both the scale of the activities and the potential for negative social and environmental impacts of such large-scale operations, the industry is often the subject of criticism for its failure to respond to local needs or to provide lasting benefits to those who are most affected by mining activities or for its environmental performance.

5.1 Corporate Social Responsibility and the Extractives Sector

The Government of Canada has been involved in corporate social responsibility (CSR) for several decades. Canada played a major role in the development of the [Organization for Economic Cooperation and Development \(OECD\) Guidelines for Multinational Enterprises \(1976\)](#) and in the release of the groundbreaking report, "Our Common Future: the World Commission on Environment and Development (1987)". In the 1990s, Canada established the International Institute for Sustainable Development and launched the Whitehorse Mining Initiative, in order to address CSR issues at home and abroad.

Today, Canada's adherence to the OECD Guidelines remains a key element of its commitment to CSR. The Guidelines provide recommendations on voluntary principles and standards for responsible business conduct. As an adhering country, Canada established a National Contact Point in 2000, whose role is to promote awareness of the Guidelines and ensure their effective implementation.

In 2005, increased interest in CSR was demonstrated through the Standing Committee on Foreign Affairs and International Trade (SCFAIT) report entitled "Mining in Developing Countries-Corporate Social Responsibility", which asked the Government to address issues relating to the practices of Canadian extractive companies operating overseas. In response, the Government of Canada organized the multi-stakeholder National Roundtables on Corporate Social Responsibility and the Extractive Sector in Developing Countries in 2006. The National Roundtables provided a unique opportunity to encourage a practical and solutions-oriented dialogue on ways to expand the knowledge and capacity of Canadian companies to conduct their operations in a socially and environmentally sustainable manner. An Advisory Group was established with representatives of industry (including the [Mining Association of Canada](#) and the [Prospectors and Developers Association of Canada](#)), civil society, labour, and academia to support this process. This Advisory Group released their [report](#), with recommendations, in March 2007.

Following additional consultations in 2008, the Government of Canada announced a new CSR policy for the Canadian international extractive sector, entitled [Building the Canadian Advantage](#), in March 2009.

Building the Canadian Advantage, which responds to the Advisory Group's main recommendations, is designed to help Canadian mining, oil, and gas companies meet and exceed their social and environmental responsibilities when operating abroad. It will improve the competitive advantage of the Canadian extractive sector by enhancing its ability to manage social and environmental risks abroad. Through its CSR policy, the Government will:

- Continue support for host country resource governance capacity-building initiatives.
- Create an Office of the Extractive Sector CSR Counsellor to assist stakeholders in resolving CSR issues pertaining to the activities of Canadian extractive sector companies abroad.
- Building on Canada's commitment to the OECD Guidelines for Multinational Enterprises, the CSR policy endorses and promotes the following widely-recognized international CSR performance guidelines:
 - [International Finance Corporation \(IFC\) Performance Standards on Social & Environmental Sustainability](#) for Canadian extractive companies financed by the IFC;
 - [Voluntary Principles on Security and Human Rights](#) for projects involving private or public security forces (Canada has been welcomed by the VP as an Engaged Government at the 2009 Plenary Meeting); and the
 - [Global Reporting Initiative](#) for CSR reporting by the extractive sector to enhance transparency and encourage market-based rewards for good CSR performance.
- Support the development of a [CSR Centre of Excellence](#) within an existing institution outside of government to develop and disseminate high-quality CSR information, training and tools to extractive sector stakeholders. The [Canadian Institute of Mining, Metallurgy, and](#)

[Petroleum](#) will host the CSR Centre of Excellence that is expected to be launched in the fall of 2009.

In addition, a number of initiatives have been undertaken to enhance the capacity of foreign affairs and international trade officers through information sessions, workshops and one-on-one briefings. A special CSR envelope has been created to assist Canadian missions abroad and regional offices in Canada to foster and promote CSR to clients and to engage with host governments, indigenous groups, civil society, and other stakeholders. To date, C\$350,000 has been invested in support of 50 CSR initiatives around the world. Moreover, Canada continues to promote CSR in multilateral fora.

In 2007, the Government of Canada announced Canada's official support for the [Extractive Industries Transparency Initiative](#) (EITI). The EITI is important to certain extractive industry companies operating abroad because it is increasingly being implemented in a growing number of resource-rich countries and is held as an international standard to combat corruption in emerging market countries. The EITI is a multi-stakeholder initiative that aims to support improved governance in resource-rich countries through the full publication and verification of company payments and government revenues for oil, gas and mining industries. There are 26 countries that are participating in the EITI. More information about Canada's participation in the EITI is available from <http://eiti.nrcan.gc.ca/whatquoi/index-eng.php>.

Canada has been an active member of the [Kimberley Process](#) since its launch in May 2000. The Kimberley Process Certification Scheme (KPCS) is a voluntary international initiative composed of governments, diamond companies and non-governmental organizations that places extensive requirements on participant countries to certify that shipments of rough diamonds are free from conflict diamonds. The KPSC currently includes 49 Participants representing 75 countries (with the European Commission acting as a single Participant) and accounts for approximately 99.8 percent of the global production of rough diamonds. Canada was the Chair of the Kimberley Process in 2004.

The implementation of the Kimberley Process Certification Scheme in Canada is based on its legislation. The [Export and Import of Rough Diamonds Act](#) contains Canada's requirements to export and import rough diamonds. Canada's provisions exceed the minimum requirements established by the international Kimberley Process. For example, Canada requires a seal number on containers of rough diamonds exported from Canada, under Section 9 of the [Export and Import of Rough Diamonds Regulations](#).

Canada is also a founding member and currently hosts the Secretariat for the [Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development](#) (IGF). Established in 2005 following a partnership initiative linked to the [World Summit on Sustainable Development](#) in 2002, the IGF seeks to improve, enhance and promote the contribution of mining, minerals and metals sector to sustainable development and poverty reduction. Through sharing of experiences and developments across the sector, the IGF helps to enhance capacity for the improved management of member countries' mineral wealth. There are currently 43 member countries of the IGF.

6 Conclusion

Canada's history is closely tied to the development of our natural resources. The mining sector continues to play an important part in the overall sustainable development of the country. Canada's minerals, metals and mining sector faces many challenges including an increasingly competitive

global marketplace, the goal of reducing the environmental footprint from natural resources' activities, corporate social responsibility and how to realize the full potential of Canada's North. Canada is well placed to turn these challenges into opportunities for sustainable benefits along with the leadership and engagement of key stakeholders including the private sector, provincial and territorial governments, the research and development sector, and Aboriginal and other communities located near resource projects.

Canada's minerals and metals sector holds a prominent global position and an optimistic future. Given the desire to continue to derive benefits from Canada's mineral and energy resource potential, the way we harness and manage that endowment matters now more than ever. In the modern knowledge-based economy, the development of new innovative ideas, skills and technologies through science and technology investments holds the utmost importance across the value chain from exploration and extraction to end use and recycling.

The ability of Canada to transform its resource wealth potential into sustainable benefits for its citizens, while at the same time respecting the need to protect the environment is based on an approach that recognises that good governance policies and legislation are key factors towards ensuring that the benefits from mineral resource development enhance the contribution of mining, minerals, and metals to sustainable development.

Reliance on natural resources constitutes the primary engine for socio-economic development and regional economic diversification for many communities across Canada, including Aboriginal communities. Mining plays an important role in the economic prosperity and social development of Canadians, especially in rural (often remote), northern, and Aboriginal communities, as minerals and metals industries are among the largest actual and potential employers, offering a variety of short- and long-term employment opportunities.

These initiatives by governments, along with individual, company-led initiatives are contributing to a more positive image of mining and will advance Canada's position of realizing sustainable development through the integration of economic, social, and environmental goals.