



# IISD's Mining and Sustainable Development Initiative

*Our mission is to ensure that mining makes a substantial contribution to inclusive growth and social development in communities and states without compromising the environment.*

BACKGROUND BRIEF

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## **International Institute for Sustainable Development**

The International Institute for Sustainable Development (IISD) contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change and energy, and management of natural and social capital, as well as the enabling role of communication technologies in these areas. We report on international negotiations and disseminate knowledge gained through collaborative projects, resulting in more rigorous research, capacity building in developing countries, better networks spanning the North and the South, and better global connections among researchers, practitioners, citizens and policy-makers.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC), from the Danish Ministry of Foreign Affairs and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

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## 1. Introduction

IISD has been developing work on the relationship between investment and sustainable development since 1998. Over this time, the investment and sustainable development program has expanded based on the realization that sustainable development is an investment problem: whatever sector of the economy is considered, progress towards sustainable development requires new investment, and that new investment requires the active engagement of private and public partners.

IISD's work on mining and sustainable development began in 2001 with a contribution to the first international efforts to scope out the linkages between mining and sustainable development. In 2007 IISD was invited by the International Bar Association to participate in the development of the international Model Mine Development Agreement (MMDA). IISD and its civil society partners were instrumental in restructuring the conversation for what was to become the MMDA, posing the succinct question: What would a mine development agreement look like if you started from a sustainable development perspective? This provided a starting point that was very distinct from the traditional approach of focusing on mining company rights and government fiscal benefits, with a small add-on for environmental and social issues. Resetting the starting point more broadly is now critical for the sector as a whole.

Over the past five years or so, IISD has also begun to examine the fiscal and some specific environment-related aspects of mining investments. This process has included initial analyses of government costs (subsidies) and benefits (tax and royalties revenues) and other social costs (negative effects of mining on the environment and societies) and benefits (employment, domestic purchasing, downstream benefits) of mining to local communities. On the environment side, greater integration of environmental services with more traditional environmental impacts has been a focal point. IISD has also undertaken groundbreaking analysis of the impacts of carbon-focused economic instruments on the competitiveness of mining operations with the International Council on Mining and Metals.

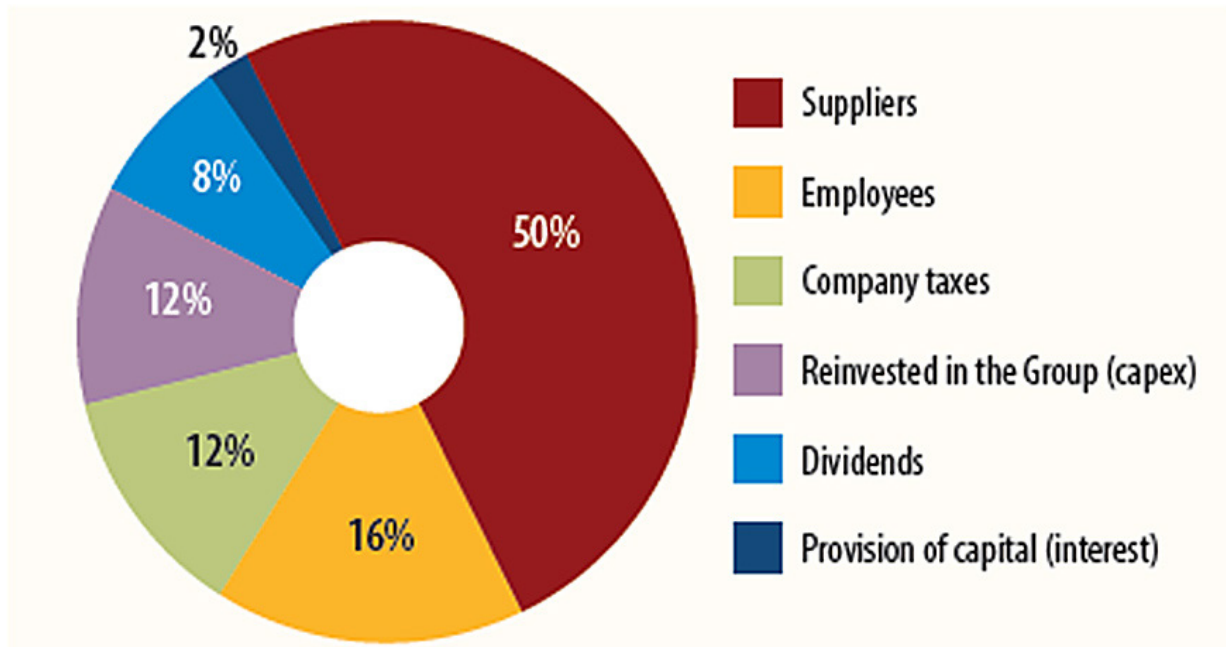
## 2. Strengthening the Understanding of Mining and Sustainable Development

Today, IISD's mining work has matured to a multidisciplinary and inclusive understanding of mining in relation to sustainable development. Building on our non-partisan, holistic approach to sustainable development, and integrating our economic, environmental and legal skills and experience, IISD's Mining Initiative now has two main interconnected components: (1) promoting inclusive growth and social development, (2) without compromising the environment. Both of these bring in a set of mutually supportive goals and responsibilities for companies, governments and communities.

The objective of ensuring that mining makes a substantial contribution to inclusive growth and social development can be understood in relation to the following chart:<sup>1</sup>

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<sup>1</sup> Based on an Anglo Gold-Ashanti review of distribution of monies spent in relation to its mining operations



Traditionally, governments and mining companies have focused on two parts of the pie chart: company taxes and dividends when an equity stake is also discussed. Company taxes have been the primary focus for governments, in the form of income tax, royalties and other taxes. For some governments, dividends derived through share ownership in the mine have also been a key element of the financial benefits to governments. We emphasize the notion of governments here, as communities traditionally were not part of the equation in negotiating mining agreements and permits. The impact of this exclusion was that the zero-sum negotiation between companies and governments focused on 20 per cent of the pie relating to the monies paid out by mining companies in taxes, and in some cases the additional 8 per cent paid in dividends.

Sustainable development requires that mining operations change their focus to consider how mining companies, governments and communities can all engage in examining how concepts of inclusive growth and social development can be applied to, at least, company expenditures on supplies of goods and services and employment, based on shared-value approaches. ***The result: instead of 20 per cent of the pie being the subject of negotiation, 86 per cent of the company's expenditures become the legitimate subject of consideration by governments, companies and communities.***

This transition is essential from a sustainable development viewpoint, and for many companies it is already well underway. Where IISD will make a powerful contribution is in the development of an integrated toolkit that will allow companies, governments and communities to identify an optimal mix of fiscal and non-fiscal economic benefits to maximize a win-win-win conception of mining projects. IISD will achieve this by marrying its economic analysis with its legal expertise to identify the best mechanisms for adopting and implementing these tools in mining and fiscal law frameworks.

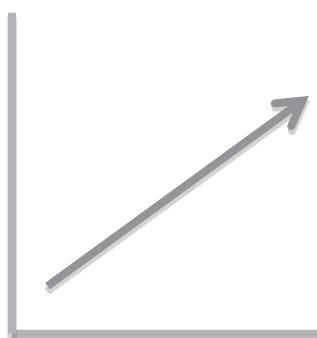
The objective of seeking the enhancement of the social and economic benefits *without compromising the environment* is equally relevant. All mining, of course, will have an impact on the environment. What IISD believes, however, is that the global community must stop approaching sustainable development as a constant balancing of social and economic development versus the environment and start seeing the environment as a non-compromisable asset. The rationale is increasingly clear and simple: every time we as a global community compromise, it is the environment that is the net loser in the process. And the cumulative impact of this has pushed too many environmental systems, from climate to water to too many individual species to count, to the brink.

IISD believes that a more subtle view must be taken today. While mining will always result in some environmental impacts, the scale, duration and degree of landscape change or air and water impacts will vary by the type of mining (e.g., underground versus strip mining) and scale of the project. These differences must be understood and strategies developed that reflect the potential variations in impacts of mining operations on human and ecological systems. If this is done, one can look at the environmental components of the relationship of mining to sustainable development as being twofold: first, reducing and eliminating negative impacts in the exploration and exploitation phase with a focus on human and ecosystem impacts; and second, reversing or mitigating all impacts in the post-closure phase. The balance shifts here to maximizing the shared benefits of the temporary incursion on the environment, and achieving longer lasting intergenerational benefits from the use of the environment’s finite resources.

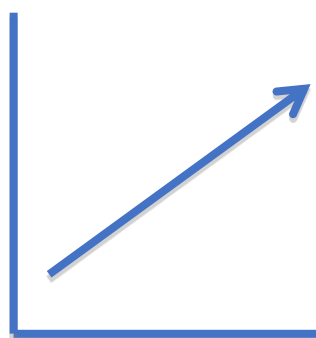
In addition, it is possible to leverage the knowledge brought to bear on environmental analysis prior to a mining investment to also look at how to increase the ecosystem services provided to the community at the same time that negative impacts are identified and assessed for management. This requires appropriately designed integrated tools, which IISD has already been developing and utilizing in other contexts.

### 3. Implementing Our Integrated Vision

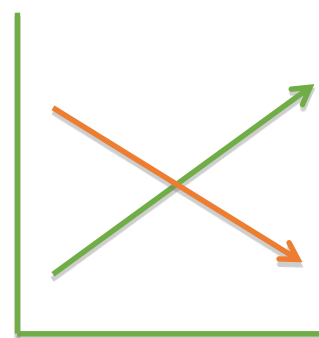
Our integrated vision is simple to understand, yet complex to achieve. As reflected in the diagrams below, IISD strives to increase fiscal benefits and non-fiscal economic and social benefits, while reducing environmental costs and maximizing potential environmental benefits. For our purposes, as noted above, fiscal benefits are defined as net government revenues (at any level) minus government costs for incentives, subsidies, possible mine closure liabilities, etc.



**1. Fiscal Benefits**



**2. Non-fiscal economic and social benefits**



**3. Environmental costs minimized and benefits maximized**

In order to promote the achievement of this integrated vision, IISD's Mining Initiative is set up in three related components: applied research, training and capacity provision. Each seeks to combine our economic and legal experience towards this objective.

## Applied Research

In order to maximize fiscal and non-fiscal economic and social benefits, governments and communities must be aware of the tools and opportunities that can be effectively harnessed. To support this goal, IISD will develop, apply, revise and promote a model that will enable optimization of the value of mining investments in a win-win-win context. Unlike the predominant models that focus on the 12–20 per cent of the pie that is direct fiscal instruments and payments to the government, IISD's model will include the full range of direct payments to government and potential benefits from spending on employment and purchasing, plus options for downstream economic benefits. This fully integrated model of government and community benefits as a tool for forward planning in mine investments would be a first in the sector as far as we are aware.<sup>2</sup> To develop this model, IISD will undertake an applied research program that will:

1. Develop an appropriate methodology to assess both fiscal and non-fiscal benefits of projects in order to provide tools to governments, communities and companies that will help maximize opportunities for inclusive growth and development.<sup>3</sup> IISD intends to develop this initial methodology with international inputs.
2. Apply the methodology to existing mining projects that utilize a range of tools for apportioning the benefits of the mine, such as fiscal laws, permitting processes, contracts and community development agreements, to assess the actual benefits to date of different fiscal and non-fiscal measures utilized. This will allow us to test the utility of various approaches as well as review and revise the methodology and reapply it.
3. Use the methodology in different contexts, such as Africa and the Canadian North, to test approaches and draw lessons from each context that might be relevant in the other. An array of 6–10 such studies will be sought in the first two years of the initiative.
4. Through a comparative analysis of the results of the above, IISD will develop a toolkit that helps governments, companies and communities model alternative approaches to optimizing the value of mining investments in a win-win-win context. Unlike existing models that focus on the 12–20 per cent of the pie that are direct fiscal instruments and payments to the government, this model will include the full range of direct payments to government and potential benefits from spending on employment and purchasing, plus options for downstream economic benefits.
5. IISD would then work to create a virtuous circle where the model is applied, reviewed for effectiveness and revised. IISD would develop specific opportunities for training and capacity provision in this regard.

<sup>2</sup> Very few analysts are valuing/quantifying the benefits to local communities because there is currently a significant lack of specific, relevant and understandable data on how mining activity contributes to local development. According to a 2014 Engineers Without Borders study of public reporting trends (*Local Procurement by the Canadian Mining Industry*), only 12 Canadian mining companies have reported on local procurement in 2012 (see <http://www.ewb.ca/sites/default/files/ewb-msv-local-procurement-reporting.pdf>). IISD will work to address this critical gap.

<sup>3</sup> Note, for internal purposes, the first piece of conceptual work on this will be internally funded, at least in large measure, as part of a quick start project for the initiative.

6. IISD will couple this economic modelling tool with a parallel analysis of the legal instruments that best support the maximization of the identified benefits. The analysis will focus on regulatory mechanisms as the primary regulatory vehicle, as well as the role of mining contracts. We will then build this combined set of tools into our public material and training courses, and apply them in our direct advisory services to governments.
7. In relation to environmental issues, IISD will continue to develop its tools for assessing climate change risk and adaptation options, as well as water and food security models. The integrated application of both to mining is being developed. IISD is testing its first model now and will review and revise it based on this pilot project.

## Training

1. IISD will complete its existing work on the development of a mining contract negotiation handbook for developing countries. Based on the approach of the MMDA discussed briefly above, IISD is developing a comprehensive approach to negotiating contracts for governments most in need of such assistance.
2. IISD will continue its training work in developing countries on mining contract negotiations and expand this to developing longer-term mining law frameworks. We will build on existing partnerships with the Sustainable Development Strategies group and the World Bank, adding more regionally based partnerships such as with the African Legal Support Facility and African Mining Development Centre in Tunis and Addis respectively.
3. IISD will expand its current legal training services to include the analysis and utilization of economic opportunities for benefiting from mining. This will include such issues as using the methodology developed through the applied research work, combining the economic and legal tools effectively, analyzing subsidies and fiscal instruments effectively, and identifying and using tools related to these issues.
4. IISD will develop training modules for developing countries on the integration of environmental services and food and water security analysis into environmental and social impact assessment processes, based on the twin tracks of reducing and mitigating damage and leveraging the additional information to improve environmental services for communities.

## Capacity Provision

1. IISD will continue to build on opportunities to provide direct services to developing countries in the development of:
  - a. Mining laws and related fiscal and non-fiscal economic instruments
  - b. Mining contracts and related fiscal instruments
  - c. The proper integration of mining laws and contracts
  - d. The development of Environmental Social Impact Assessment processes for full inclusion in mining-related decision-making processes
  - e. The development of appropriate dispute management and dispute settlement processes and provisions
  - f. The negotiation of mining contracts
  - g. The implementation of the integrated benefits analysis model

**For additional information, please contact IISD's Mining and Sustainable Development Initiative through Hans Herrmann ([hans.herrmann@iisd.ca](mailto:hans.herrmann@iisd.ca)) or Howard Mann ([hmann@iisd.ca](mailto:hmann@iisd.ca)).**

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