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# Sustainable Mining

How good practices in the  
mining sector contribute to  
more and better jobs

Olle Östensson and Alan Roe

A diagram consisting of several overlapping rectangular boxes of varying sizes and positions, creating a grid-like structure. The text is centered within the intersection of the bottom-most boxes.

Multinational  
Enterprises  
and Enterprise (MULTI)  
Engagement Unit  
Enterprises  
Department

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to more and better jobs

OLLE ÖSTENSSON AND ALAN ROE

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First published 2017

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Östensson, Olle; Roe, Alan

*Sustainable mining: how good practices in the mining sector contribute to more and better jobs* / Olle Östensson and Alan Roe; International Labour Office – Geneva: ILO, 2017  
40 p.

ISBN 978-92-2-129449-8 (print)  
ISBN 978-92-2-129450-4 (web pdf)

International Labour Office

mining / decent work / good practices / state intervention / corporate responsibility / multilateral aid / role of ILO / Zambia

08.13

*ILO Cataloguing in Publication Data*

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Visit our web site: [www.ilo.org/publns](http://www.ilo.org/publns)

This publication was produced by the Document and Publications Production,  
Printing and Distribution Branch (PRODOC) of the ILO.

*Graphic and typographic design, layout and composition,  
printing, electronic publishing and distribution.*

PRODOC endeavours to use paper sourced from forests managed  
in an environmentally sustainable and socially responsible manner.

Code: DTP-JMB-REP

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## Note

This assessment report was commissioned by the Multinational Enterprises and Enterprise Engagement Unit of the International Labour Organization (ILO) and the ILO Country Office for Zambia, Malawi and Mozambique in 2013, in the context of its activities on the mining sector in Zambia, which focussed on strengthening dialogue and promoting job creation, skills development and local economic development linked to mining operations. This assessment aimed at identifying international practices -from governments and the private sector- that aim to support broader wealth and job creation derived from mining operations.

The assessment was carried out by Oxford Policy Management. The project manager was Maja Jakobsen. The remaining team members were Alan Roe and Olle Ostensson. The findings of the assessment were presented by Olle Ostensson in a high-level dialogue meeting held the 28 and 29 November of 2013, in Lusaka, Zambia. For more information about ILO's activities in Zambia, visit [www.ilo.org/zambia](http://www.ilo.org/zambia). For more information about the Multinational Enterprises and Enterprise Engagement Unit of the ILO visit [www.ilo.org/multi](http://www.ilo.org/multi).



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# List of abbreviations

<b>AfDB</b>	African Development Bank
<b>ALP</b>	Ghana Ahafo Linkages Programme
<b>AMDC</b>	African Mineral Development Centre
<b>AMF</b>	Antamina Mining Fund
<b>AMISQ</b>	Mozambique Organization for Quality
<b>AMSI</b>	African Mineral Skills Initiative
<b>AusAID</b>	Australian Agency for International Development
<b>AZ</b>	Anglo Zimele
<b>BMZ</b>	German Federal Ministry of Economic Cooperation and Development
<b>BP</b>	British Petroleum Plc.
<b>CDN</b>	Canadian dollars
<b>CDT</b>	Community Development Toolkit
<b>CIDA</b>	Canadian International Development Agency
<b>CommDev</b>	IFC/World Bank's Oil, Gas, and Mining sustainable Community development fund
<b>CMVs</b>	Country mining visions
<b>CSO</b>	Central Statistical Office
<b>DFID</b>	UK Department for International Development
<b>DRC</b>	Democratic Republic of the Congo
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>EU</b>	European Union
<b>FDI</b>	Foreign Direct Investment
<b>FOSTER</b>	Facility for Oil Sector Transparency
<b>GDP</b>	Gross Domestic Product
<b>ICMM</b>	International Council on Mining and Metals
<b>IFC</b>	Industrial Finance Corporation
<b>ILO</b>	International Labour Organisation
<b>IMF</b>	the International Monetary Fund
<b>ISO</b>	International Organisation for Standardisation
<b>M&amp;E</b>	monitoring and evaluation
<b>MBR</b>	Minerações Brasileiras Reunidas
<b>MDA</b>	Mine Development Agreements
<b>MNE</b>	Multinational Enterprise
<b>MOAs</b>	the Memoranda of Agreement
<b>MOUs</b>	Memoranda of understanding



<b>MSME</b>	micro, small and medium enterprises
<b>NGOs</b>	Non-Governmental Organisations
<b>Norad</b>	Norwegian Agency for Development Co-Operation
<b>NTO</b>	the national treatment obligation
<b>OPM</b>	Oxford Policy Management
<b>PAs</b>	Participation Agreements
<b>PNG</b>	Papua New Guinea
<b>PRA</b>	project Poverty Relief and Alleviation project
<b>REI</b>	Resource Endowment Initiative
<b>RWI</b>	the Revenue Watch Institute
<b>SDT</b>	special and differential treatment
<b>SEAT</b>	Socio-Economic Assessment Toolbox
<b>SEMA</b>	Socio-Economic Monitoring Agreement
<b>SEBRAE</b>	Support to small and medium-sized business, a non-governmental entity
<b>SDSG</b>	Sustainable Development Strategies Group
<b>SLPs</b>	Social and Labour Plans
<b>SME</b>	Small- and medium-sized enterprises
<b>SML</b>	Special Mining Lease
<b>TFM</b>	Tenke Fungurume Mining
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNECA</b>	United Nations Economic Commission for Africa
<b>USAID</b>	U.S. Agency for International Development
<b>WTO</b>	World Trade Organisation
<b>ZCCM</b>	Zambia Consolidated Copper Mines
<b>ZKw</b>	Zambian Kwacha
<b>ZRA</b>	Zambian Revenue Authority

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# Executive Summary

## Background

The international policy and academic debate about mining investment in developing countries has increasingly focused on the non-fiscal impacts of large mining projects. Particularly relevant in this regard are government and corporate policies and practices that aim to support broader wealth and job creation. The present report is intended to provide an overview of good practices towards these objectives. The expectation is that by informing the process of dialogue within Zambia, this compilation of international experience can help to encourage greater variety and depth of like-minded initiatives in Zambia.

In the late 1980s and 1990s academic research began to raise concerns about the so-called ‘resource curse’ – a term now widely used to describe a range of negative economic, political and social outcomes assumed to be associated with extractive industries in a country. By the late 1990s researchers and later policy-makers, including donor agencies, began to see that the resource curse might not be inevitable. The debate started to focus on the importance of sound institutional arrangements in host countries, and how these could be managed to help to ensure broadly positive economic and social outcomes. In the past few years there has been a growing emphasis on ways in which sub-soil natural resources can be turned into forms of human and physical capital, and how the extractive industries can be better integrated with the rest of the economy to ensure more sustainable outcomes. This line of enquiry has coincided with the re-discovery of industrial policy as a legitimate policy tool to support economic and social transformation in low- and middle-income countries.

## Mining in Zambia

The mining sector, in particularly copper mining, has for decades been the backbone of the Zambian economy. In particular in the two provinces with large scale mining activities: the Copperbelt and the North Western province.

Most of the Zambian mining industry was privatised in the early 2000s, following several decades of state ownership. Mining companies, in the absence of a clear and transparent framework to define aspects of their obligations to communities, have largely had to define their own roles and responsibilities. Not surprisingly companies have taken on this challenge of interpreting their roles in different ways. Despite this, mining provinces (the Copperbelt and North Western province) and mining districts within those provinces have done better in terms of employment, income growth and social development than the rest of the country. But, outcomes have probably been less good than if a defined set of roles and responsibilities had been established from the beginning.

The large investments made by mining companies since 2000 have had significant impacts on the Zambian economy at the national level. In summary mining’s macroeconomic contributions have been:

- **Foreign direct investment (FDI)** from mining accounted for 86 per cent of the total inflows into the economy in 2011.

- **Total domestic investment** has seen a major structural shift in its investment rate (the ratio of gross fixed capital formation to gross domestic product (GDP)). In recent years, as new large scale mining investments have taken place, this ratio has risen to well over 20 percent.
- **Mineral export earnings** reached a historical high of 86 per cent of total exports in 2012. Zambia has the second highest level of mineral exports dependence worldwide.
- **Tax and royalty payments** from the mining sector to government now contribute to well over 30 per cent of total tax revenues or the equivalent of 5.9 per cent of GDP. This compares with contributions of 8.2 per cent of tax revenues equivalent to only 1.3 per cent of GDP back in 2006. The current figure positions Zambia as one of the highest payers of mineral taxes in the world.
- **Mining's contribution to GDP** cannot be accurately assessed from official figures (i.e., from the Central Statistical Office (CSO)) because the data currently reported are constructed from a very out-dated base year (1994). Our own unofficial estimate is mining's share of GDP in current prices at approximately 14–15%.
- **Aggregate formal employment in the mining sector** is over 90,000 people or 1.7 per cent of total economy-wide employment. Mining is one of the leading employers of formal sector labour even at the national level – and even more dominant in the Copperbelt and the North Western province.
- **Informal, indirect and induced jobs** are created as a result of mining activities. Employment activities that covers, for example, informal mining activities, informal activities within the formal mining sector, indirect employment (e.g. in supplier companies to the mines) and induced employment (e.g. selling products and services to mine workers). Drawing on international experience, the employment figures for indirect and induced jobs are likely to be between three and six times larger than direct formal employment in the sector.

## Frameworks for local and community development

The past few years have seen a growing number of international efforts to offer detailed guidance, mainly to mining companies, but also to other players, such as government. The guidance has focused on how to approach and increase the benefits that can accrue to local communities.

**The ILO's Tripartite Declaration concerning Multinational Enterprises and Social Policy (MNE Declaration)** provides guidance to both companies and governments about how to enhance the benefits, especially, the working conditions of employees in the mining industry. In relation to, for example, good practice for employment, the Declaration recommends:

- Enterprises to use technologies that generate employment, both directly and indirectly, and to build linkages with local enterprises by sourcing local inputs, promoting local processing of raw materials and local manufacturing of parts and equipment.
- Governments to pursue policies designed to promote equality of opportunity and treatment in employment, with a view to eliminating any discrimination based on race, colour, sex, religion, political opinion, and (in collaboration with enterprises) to provide income protection for workers whose employment has been terminated.

**The ICMM's Community Development Toolkit (CDT)** relates to sustainability principle no. 9 enunciated as a condition for membership of the ICMM. The ninth principle states to *"contribute to the social, economic and institutional development of the communities in which we operate"* Although the guidance of the CDT is primarily targeted at mining companies, the authors anticipate that elements of the recommendations would have relevance for government and for local communities. For example, they suggest that the government of a host country might choose to modify some el-

ements of its licensing rules in order to make it clearer where responsibilities lie for implementing some of the actions listed in the ICMM's toolkit. The CDT offers valuable guidance about good practice – particularly for mining companies – in five specific aspects of community relations namely (see Section 3 for further details).

**The Socio-Economic Assessment Toolbox of Anglo American (SEAT)** is acknowledged to be the leader amongst the various mining-company specific frameworks that are known to the authors. Like ICMM's CDT, the SEAT provides the management teams of the company with tools designed to help them plan the full life cycle of an engagement with local communities where the company operates. This suite of tools runs through the whole spectrum: from profiling the mining operation and its likely impacts ex ante to monitoring and assessing actual impacts.

Two general points are worth noting concerning frameworks:

- The majority of initiatives have originated from mining companies. Although governments have an interest in the same set of issues, their policies towards these issues are commonly subsumed in the broader agendas relating to those same issues for their country as a whole.
- Host governments have significant choice in the degree of obligation they impose on mining companies as conditions for their concessions and licenses. Many international mining companies are sufficiently motivated to self-impose a wide range of conditions in order to obtain and then retain their social licenses to operate. It is an interesting challenge for any host government about how to mix and match compulsion against the helping hand to more self-imposed but basically voluntary actions in these areas.

## Good practice: governments

The governmental contribution to promoting broad-based wealth and employment creation is delivered through:

- Legal and regulatory frameworks for mining (such as revenue sharing and mandatory downstream processing); and
- Engagement in specific mining-sector programmes.

**Revenue sharing** has become more widespread in recent years. In Africa, several governments share royalties, license fees and/or corporate income tax proceeds with lower level governments and local communities. However, revenue sharing is not yet the rule in mining economies. A fundamental difficulty with sharing mineral revenues in most countries is that public expenditure, for instance, for social services, usually peaks well before any tax revenue is collected.

**An example of revenue sharing is the Canon Minero in Peru.** Under this legislation, half of mining companies' payments of corporate income taxes is returned to regional and local level governments of the areas where they operate and are used to finance public investment. The system of distributing revenue has been changed several times in order to make it fairer but there are large variations in the amounts received by lower level governments. While the redistribution of tax revenue has clearly led to higher investment in health and education, no effects on employment or income have been demonstrated, with indirect and induced employment resulting from the mining project itself being substantially more important.

**Mandatory downstream processing** is also becoming more common in mining dependent economies. Export taxes on unprocessed products or outright bans are the most commonly used methods. The underlying idea is that this is a natural progression for a country exporting raw materials to move downstream into the processing of these materials. Therefore, it is believed that policies encouraging such downstream processing can improve trade performance and speed up the structural

transformation of the economy. However, if mining companies are not already processing raw materials into processed products on their own account, it is probably not profitable, for instance, because of missing economies of scale, because important inputs have to be procured at high cost, or because the facilities are too far from consumers and being able to deliver rapidly.

**Examples abound of export taxes on unprocessed materials** being introduced “on trust” and thereafter resulting in either reduced production of the raw material or the establishment of processing facilities that exist solely because the export tax pushes down the price of the raw material sufficiently that the processors can cover their costs. Such processing facilities that depend on the continuation of the tax for their survival clearly lead a fragile existence. It is also likely that the additional value added created through processing facilities built in order to avoid an export tax is small and in some cases negative.

Two examples of export taxes being used to assure the domestic processing industry of low cost raw materials are discussed: China and India. In the case of China, the practice eventually had to be abandoned after a long procedure, where WTO panels consistently found against it. In India, where export taxes have been imposed on iron ore in order to safeguard supplies for the steel industry, the policy has resulted in a fall in Indian iron ore production from 223 million tons to 140 million tons from 2008 to 2012. The closure by order of courts of some mines in the state of Karnataka that were operating without licenses contributed to the fall in production. Some Indian steel producers have unsuccessfully lobbied government seeking a removal of the import duty on iron ore since they could not provision themselves from domestic sources.

**Legislation on local content** has been introduced in a number of countries. It is intended to encourage the establishment and strengthening of backward linkages from mining and increased *local content*. Some countries use legislation to express a general preference for local content, but without mandating specific requirements. Other countries have more specific requirements stated in legislation or regulatory instruments – in some cases applying relatively ‘blunt’ industry-wide requirements. Such approaches may be distorting as they carry different costs of compliance on firms, depending on the nature of the mining activity. In other cases, industry-wide requirements are designed to increase gradually over time. Such initiatives may be most appropriate where the country is starting from a low base of industrial capacity and skills. It recognises that building skills and firm capabilities can take time, and that firms as well as government policy can support this development through their interventions.

**There are several examples of local content legislation.** Many countries require mining companies to submit their own plans to increase domestic content over time. This approach recognises both the time it takes to build capabilities and skills, as well as the fact that issues may vary across different types of mining company. In general, local content legislation exists on a spectrum from setting out broad policy priorities, to industry-wide ‘blunt instruments’. In part because more aggressive mandated local content is a ‘new’ area, there is limited evidence of its impact on business decisions.

Increasingly, mining companies are required by legislation to *consult with the local communities* affected by the proposed operations. The scope of such consultations may vary and usually companies are not required to conclude binding agreements with the communities. However, in most cases, companies find it in their interest to try to reach agreement with the communities on terms that they can consider, for practical purposes at least, as binding. In very few cases, companies have an obligation to reach a legally binding agreement with communities. The best known example is from Papua New Guinea (PNG), where *Development Forums* provide a forum for consultation and the Memoranda of Agreement (MOAs) that emerge from the Forums provide at least an opportunity to achieve a greater degree of sustainable development for local communities.

## Good practice: mining companies

Corporate initiatives are often developed in response to pressure from governments, employees or local communities. This may lead to a focus on short term solutions and “easy fixes”. There are, however, an increasing number of well-designed and effective corporate programmes that aim to promote local employment and wealth generation and that have been developed over long periods, usually in collaboration with local communities and other interested parties. The corporate programmes cover areas such as:

- Supply chain development
- Employment
- Local business development
- Regional development
- Infrastructure

**Many mining companies invest in improving the capability of local suppliers.** For the mining company, there are obvious advantages to building relationships with local suppliers in terms of facility of contacts, likelihood of a long term business relationship and good relations with local communities. Some companies have developed specific programmes aiming to improve the capacity of local suppliers. Anglo American’s Anglo Zimele (AZ) scheme was set up in 1989 by Anglo American with the objective of supporting enterprise development. AZ is run on a commercial basis – funding is provided where it is expected to generate a return. The AZ strategy is to provide equity funding (up to 49 per cent) as well as support with unsecured debt financing when appropriate. The provision of equity stakes allows for alignment of incentives, and increases commitments of providing business advisory support. Exit is normally within 3–5 years.

**One of the most difficult subjects for large mining projects to deal with is employment.** Expectations are often very high and local populations are almost inevitably disappointed if and when relatively few of the locals can be recruited due to skills limitations. While most mining companies give priority to local recruits where possible, few take a broader view of the effects of their hiring policies on local communities. The Diavik Diamond Mine in Canada’s Northwest Territories has applied an integrated approach to local training, employment and procurement. The mine employed had met its target of having 67 per cent of its work force comprised of Northern residents. But the mine did not meet its Aboriginal employment commitment. This was not an issue, since the absolute number of people was far higher than the original estimate. While most Aboriginal employees are first engaged in entry-level or semi-skilled positions, the mine seeks to expand their skills through its own apprenticeship and professional development programmes, as well as with a community and government partnership that administers a series of work force development programmes.

Another example is the *Sepon Mining Project*, a gold and copper mine located in southern Lao PDR. MMG Sepon is committed to giving preference to employing people from the communities and areas closest to its operations. Recruitment, at least in the mine’s initial stages was specifically to be based on “aptitude” rather than “formal education qualifications” – a tactic designed to by-pass the lower levels of schooling of the Mon Khmer speakers, and one that has generally worked as planned. In addition to giving priority to people from the local communities and marginalised groups, MMG Sepon also gives priority to women. MMG Sepon has also attempted to ensure that recruitment policies are understood by the local population to be fair. As a result, household surveys carried out by the company at two year intervals show that income equality has improved, both within and between villages and ethnic groups.

**By stimulating local businesses** mining companies can exploit the fact that induced employment has raised local demand for consumer goods and at the same time assist in laying a basis for diversified economic development.

In 2008, the *Antamina Mining Company* in Peru set up the PRA project (Poverty Relief and Alleviation) involving 18 agriculture and tourism products. The project involves five steps:

- Building trust with a national or international buyer that leads to a sales contract
- Finding local farmers or businesses willing to improve their products or services to enable them to fulfil the sales contract
- Providing the farmer or business with skills training that will enable them to meet the buyer's needs
- Encouraging financing and investment from the buyer, microfinance institutions, municipalities and non-governmental organizations
- Recording the resulting sales growth and job creation among poor, previously unlinked farmers, business owners and workers – helping the farm or business to sustainability.

By starting with a contract for a product, the local producer undertaking to supply the product can be more confident of a market and of the price they will receive for their crop or product.

**Large scale mining investment poses challenges and opportunities for local governments that are responsible for regional economic development.** These governments are seldom prepared for the new responsibilities and may not be able to draw up and implement plans for regional development that make the most of the opportunities offered by mining projects or that prepare the local economy for the eventual closure of the mine. Some mining companies have attempted to assist local governments with their planning tasks or to help them improve their planning capacity.

In 1995, the lower level of the *Morro Velho mine* in Nova Lima in Brazil was closed. At that time, *AngloGold Ashanti* took the initiative to create the Nova Lima Development Agency. An initial analysis showed that Nova Lima had the potential to develop services such as hospitals, universities and hotels owing to its proximity to the provincial capital Belo Horizonte. Another area highlighted by the analysis was the need for computer skills among the local population in order to create a service sector. From the start of the project until 2008, Nova Lima attracted more than 80 new companies in sectors such as hospitals, hotels, food service enterprises and university facilities, which have generated 6,000 new jobs.

**Most large mines require important investments in infrastructure** for inputs and machinery to be brought in and finished products to be transported out. Such infrastructure can often be used by local populations and other economic activities and can position a region for more rapid economic development and diversification.

Tenke Fungurume Mining (TFM) began commercial operations at its mine in Katanga, Democratic Republic of Congo in 2009. The most important settlement in the area is Fungurume, a town within the concession area. The concession area also includes several villages. When development work for the mine started in 2006, almost all of the inhabitants in the concession area were either subsistence farmers or artisanal miners. Since then, Fungurume's population has tripled and the local economy has grown to include a large number of diverse commercial establishments, providing jobs to about 2,000 people. While most of this development can be attributed to induced employment, two actions by TFM were crucial. First, the company improved the road between Fungurume and Lubumbashi (the provincial capital), reducing the driving time from two days to four hours. The improved road made it possible for traders from other parts of the province to reach Fungurume, thus increasing local supplies of consumer goods. Second, it also provided local farmers with an outlet for their produce, allowing them to earn cash income (the area had an almost completely non-monetary economy before the mine). As a result, local incomes have improved, the local food price inflation that is often associated with large mining projects has been kept in check and the nutritional status of the population has improved.

## Good practice: multilateral organisations and donors

Multilateral organisations and donor interventions can be grouped into three main categories which together span most parts of the mineral value chain:

- Technical assistance for governments (and occasionally for communities)
- Support to transparency and accountability initiatives, and
- Specific partnerships with the private sector.

Donors have established *partnerships* with the private mining sector and others active in the tripartite relationship in a variety of areas. They have also facilitated programmes linking the private sector with government, civil society or educational institutes. The rationale is often to extend the otherwise limited capacities of host country governments both central and local. Examples – many of them exemplifying good practice – include activities touching on local business development, sector-specific skills development, local government capacity building, shared infrastructure projects and environmental awareness.

## Lessons for Zambia

There exists a rich core of accumulated international knowledge and experience on how mining can promote employment and other benefits to local communities. These initiatives illustrate the many different ways in which mining companies, governments, and other players have approached the task of working across the mining value chain. Many of these examples carry relevance in the Zambian context.

**Broad objectives instead of mandated requirements.** The discussion of downstream processing and local content shows that legislation is a blunt instrument. The international experience suggests that attempts to influence internal corporate processes concerning their detailed investment and procurement decisions through an absolute or quantitative target often lead to a misallocation of resources, rent seeking and loss of economic opportunity. This is not to say that governments should give up attempting to influence corporate decision making. However, it does imply that a more promising avenue of government intervention may be to incentivise companies to find ways of meeting social objectives through the setting of broad objectives rather than narrow mandated requirements.

**Initiative originates at the company level.** The majority of the initiatives identified have originated with the mining companies themselves. It is not surprising that the mining companies have done more of the detailed ground-level work in this area, given (1) their day-to-day local knowledge of their mine sites; (2) their often large budgets to actually implement specific ideas; and (3) the strong external pressures they face to show that they are responsible corporate citizens. Governments have been happy to collaborate on a case-by-case basis with initiatives launched by mining companies or, less frequently by donor agencies and NGOs.

**Success depends on collaboration among key stakeholders.** Success almost without exception depends on active cooperation between companies and government and usually also with parts of civil society. Companies alone do not have the political legitimacy or credibility to manage social change. Neither do most mining companies welcome such a responsibility. Governments, both at the local and national level, are necessary to ensure that any initiatives that are taken are consistent with the interests and wishes of the population and also with national policy priorities. Civil society is needed to provide further assurance that disadvantaged groups and those without political influence are included in the process of designing and implementing programmes.



Collaboration is key. Many successful programmes have focused on either removing bottlenecks, for instance, in the form of inadequate but critical infrastructure. This involves efforts to ensure some leveraging from the investments made by mining companies so that their benefits in terms of local economic development are enhanced. The necessary inputs from the formal government structure and from civil society consist of transmitting priorities and mediating between the various interested parties so that generally acceptable solutions are found and nobody is excluded.

Positive results should be expected of long term social investments. A large number of successful initiatives are designed to build capacities. Many projects have demonstrated impressive results even in the short term. Others, such as investments in education, can only be evaluated in the longer term, but from what is known in general about the long term impact of such measures, the results are likely to be positive.

Broad based economic development is possible. Many successful initiatives target economic activities outside the immediate supply chain of a mine's commercial activities. Such initiatives can generate benefits from the increase in employment, diversification and general economic wellbeing that usually accompanies large mining projects. The presence of a core of workers with somewhat higher incomes than previously provides a ready stock of consumer demand, which is multiplied as mine workers spend and give incomes to others. The fact that not everybody qualifies for jobs in mining usually creates a reserve of labour in mining areas. Improved infrastructure means that conditions for obtaining inputs and transporting products outside the community can become more favourable. Accordingly, broader based economic development is possible, provided that all interested parties are willing to support collaborative solutions.

# Introduction and objectives

This report was prepared by Oxford Policy Management (OPM) and delivered under an International Labour Organisation (ILO) project concerning research on good practices in the mining sector to contribute to broader wealth and job creation. The work was desk-based and undertaken during November 2013. The report was written by Olle Östensson and Alan Roe. The material reviewed included public reports, academic research programmes and ‘grey’ (unpublished) policy literature.

The research aims to provide tripartite stakeholders in the Zambian mining sector with a report that compiles and documents international good practices in the promotion of broader-based wealth and job creation in host mining communities. The expectation is that by informing the process of dialogue within Zambia, this compilation of international experience can help in the process of encouraging greater variety and depth of like-minded initiatives in Zambia.

This report interprets the objective mainly in terms of the benefits to local communities that come from particular initiatives both of mining companies themselves but also from groups of employers, intergovernmental and nongovernmental organisations, bilateral donors and government. These initiatives may be directly wealth creating (e.g. programmes to encourage local agri-businesses) or indirectly (e.g. projects that address institutional, health and educational constraints that if left unresolved could hinder wealth creating activities). The broader national macroeconomic contributions of mining are not considered in detail in this report.

The report is structured as follows:

- Section 2 provides a brief overview of macroeconomic contributions in Zambia in order to provide context for the study.
- Section 3 first provides a brief survey of the *international* literature of relevance to this assignment.<sup>1</sup> The section also comments on some *international* and *national* frameworks that have assisted in guiding the practitioners in planning and implementing specific initiatives.
- Section 3.5 constitutes the core of the report. It presents a number of examples of “good” practice under three main headings that in broad terms correspond to the partners in the tripartite process: (1) government, (2) corporations and (3) others including labour unions, international agencies such as donors and others.
- Section 4 draws a few lessons for Zambia

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<sup>1</sup> Some of this literature assesses the wealth and employment creation that is likely to take place independent of government actions or particular, targeted programmes, and discusses how such employment creation can be supported by government actions that attempt to change the economic conditions under which mining takes place. In addition, there exists a broad normative literature in the form of a variety of recommended approaches and toolkits that organisations active in the mining sector have developed. Some of the insights from these can help to define useful taxonomies to classify specific interventions and they also contain useful insights about “good” and “best” practice.



## The mining sector in Zambia

The mining sector, particularly copper mining, has for decades been the backbone of the Zambian economy. Its large contribution to the local economy is firmly established in the Copperbelt province, the most industrialised province in Zambia, and increasingly also in the North Western province where significant new investments have been made in the past decade.

The industry has suffered a number of vagaries since the establishment of large-scale mining in the 1930s, which have greatly impacted on its ability to deliver jobs and other wealth-creating benefits.

In 1970, mining was nationalised and eventually re-organised under the monopoly control of the state-owned company Zambia Consolidated Copper Mines (ZCCM). In the 25 years following, copper production levels steadily declined: in 1995 production had declined by more than 60 per cent to only 230,000 metric tonnes. During this period, social and other responsibilities of ZCCM to local communities were inexorably extended by government to the point where the company became the de facto local government for most purposes in the Copperbelt – the province where the bulk of mining was located. It was a combination of adverse factors (e.g. high costs, low copper prices, restricted access to transport routes, excessive social obligations) that led to the financial collapse of ZCCM and the decision to privatise the existing mines and open up new concessions to private investors in the late 1990s.

The process of privatisation was handled inadequately in several respects. An area of particular relevance to this report is the poor handling of consultations around the new roles and responsibilities for social provision in mining communities. During the consultations to establish the new post-privatisation arrangements there was, for example, little or no engagement with local district councils or representatives of labour. Not even councils that according to the Mine Development Agreements (MDAs) were supposed to take on some of the former public service duties of ZCCM were informed about the nature and extent of the new obligations. Mining communities as a consequence continued to look to mining companies – mainly in foreign private ownership – to discharge functions for which the mining companies no longer had any formal obligation. This remains perhaps the single main reason for the deep controversies and criticism of mining companies in the main mining areas, especially in the Copperbelt.

Mining companies, in the absence of a clear and transparent framework to define aspects of their obligations to communities, have largely had to define their own roles and responsibilities. Hence, the Zambian experience since 2000 deviates sharply from what might be recognised as international good practice. Not surprisingly companies have taken on this challenge of interpreting their roles in different ways. Despite this, the outcomes at community level have been reasonably good. In particular, mining provinces (the Copperbelt and North Western province) and mining districts within those provinces have done better in terms of employment, income growth and social development than the rest of the country. But, outcomes have probably been less good than if a defined set of roles and responsibilities had been established from the beginning.

The large investments made by mining companies since 2000 have had significant impacts on the economy at the national level. Mining's macroeconomic contributions, in statistical terms, is summarised below.

- **Foreign direct investment (FDI)** from mining accounted for 86 percent of the total inflows into the economy in 2011. Foreign-owned private assets in mining were at the turn of the century almost zero, by end-2011 they had grown to the equivalent of almost 70 per cent of foreign-owned private assets with a value of almost US\$8 billion. In recent years, known mining investments have taken this total to well over US\$10 billion by 2012. During the next 3–4 years an additional US\$5 billion is expected. Mining has converted Zambia from a lacklustre performer in terms of FDI to one of the strongest of the non-oil African economies in this regard.
- **Total domestic investment** has seen a major structural shift in its investment rate (the ratio of gross fixed capital formation to gross domestic product (GDP)). Prior to the late 1990s this ratio had remained constant at around 10 per cent of GDP. But in recent years, as new large scale mining investments have taken place, this ratio has risen to well over 20 percent. It should be noted that domestic investment has increased almost as much as FDI.
- **Mineral export earnings** have always been the most important component of Zambia's total export earnings. But by 2012 the contribution reached a historical high of 86 per cent of total export earnings (UNCTAD, 2012). A recent international comparative study undertaken by OPM for the International Council on Mining and Metal (ICMM)<sup>2</sup> shows that Zambia's has the second highest level of dependence on mineral exports of any country in the world.<sup>3</sup>
- **The external trade account** has improved as a result of the recovery of mining production. Import costs related to the mining investment boom has to a degree offset the large contribution to foreign exchange earnings from exports. However, the large capital goods component of import costs is essentially neutral in balance of payments terms since it is matched by similarly large capital inflows (FDI). The operational imports needed for mineral production have become quite large in absolute terms, but are still relatively small compared to the more than US\$7 billion export earnings annually.
- Balance of payments outflows are associated in the **current account** with the interest costs of the large international debt associated with the rapid build-up of mining investment. The total of these outflows is large in absolute terms – including some public debt service – is shown in the official Bank of Zambia data as being around US\$1.5 billion per annum.
- **Additional illicit outward transfers** by mining companies, is a widespread allegation in Zambia and from some international organisations. The evidence for this, however, has been mainly based on methods which can capture only the totality of capital flight with no obvious way to associate any or all of this to the mining sector.<sup>4</sup> A 2012 in depth study on this matter by two US-based professors (the most detailed study that has been carried out to date<sup>5</sup>) showed (i) that Zambia has periodically experienced large volumes of capital flight most of which occurred in periods when mining was fully under state control, (ii) that in the years since 2006 when the mining boom was at its strongest, the statistics suggest a return of illicit capital (i.e. negative capital flight), and (iii) that a comparison of Zambian mineral exports with partner countries' mineral imports from Zambia does not support the hypothesis of illicit under-pricing of exports. Nonetheless this matter will remain controversial and will continue to colour debate over mining's total contribution in Zambia.
- **Tax and royalty payments** from the mining sector to government have seen a radical change in recent years. Until 2006 the level of tax and royalty payments remained low as new private

<sup>2</sup> Source: ICMM, 'The role of mining in national economies', InBrief, ICMM London, October 2012.

<sup>3</sup> 204 countries were part of the study.

<sup>4</sup> The main example is the regular data reports on this matter produced by Global Financial Integrity (2012).

<sup>5</sup> Source: Boyce, James and Ndikumana Leonce, 2012.

investors took advantage of the capital allowances against their very large investments.<sup>6</sup> This situation has changed following a 2008 hike in the royalty rate to 6 per cent, other changes in the tax regime, and the expiry of capital allowances for the early stage new investments. Specifically in 2012, the data from the Zambian Revenue Authority (ZRA)<sup>7</sup> reported payments of mineral taxes and royalties totalling ZKw 6,619 billion out of total tax collections in that same year of ZKw 20,722 billion (un-rebased). Mining now contributes to well over 30 per cent of total tax revenues or the equivalent of 5.9 per cent of GDP. This compares with contributions of 8.2 per cent of tax revenues equivalent to only 1.3 per cent of GDP back in 2006. The current figure positions Zambia as one of the highest payers of mineral taxes in the world.

- **Mining's contribution to GDP** cannot be accurately assessed from official figures (i.e., from the Central Statistical Office (CSO)) because the data currently reported are constructed from a very out-dated base year (1994). Since 1994, the official time series show a persistent decline in mining's contribution to GDP in spite of other evidence to the contrary. Unofficial estimates put mining's contribution to GDP at around 15 per cent of total GDP in 2012. The official CSO estimate for 2012 is less than 3 per cent, only a fraction of the corresponding figure from the mid-1990s. Improved data is expected to be available shortly, when the CSO has computed the numbers to a 2010 base year. Our own unofficial estimate is that mining's share of GDP in current prices is circa 14–15%.
- **Aggregate formal employment in the mining sector** is over 90,000 people or 1.7 per cent of total economy-wide employment – formal and informal – of 5.4 million people in 2012.<sup>8</sup> This is a significant increase on the levels of mining employment seen in the mid-1990s, final years of nationalised mining, when the numbers fell below 40,000 people. Relative to total formal employment mining employment is even more important. In 2012, formal sector employment was reported as 894,175 jobs (only 16.6 per cent of the total employment figure)<sup>9</sup>, the mining sector accounted for 74,254 jobs or 8.3 per cent of total formal employment. At this level of employment, mining is one of the leading employers of formal sector labour even at the national level – and much more so in the Copperbelt and in North Western province.<sup>10</sup>
- **Informal, indirect and induced jobs** are created as a result of mining activities. A considerable number of people employed in informal mining activities, as well as informal employees within the formal mining sector, and second, a large number of indirect (e.g. in supplier companies to the mines) and induced jobs (e.g. in the various business that sell products and services to mine workers) created as a result of mining activities. It is extremely difficult to estimate the latter number, but drawing on international experience (see the following section for some background), the numbers are likely to be between three and six times as large as the direct formal employment.

<sup>6</sup> In the preceding ZCCM period, such payments were minimal – ZCCM contributing to the public finance function through by its direct spend on public services.

<sup>7</sup> which somewhat under-represents total tax payments by mining since it excludes taxes and charges collected both by local authorities and by other central government agencies such as the Ministry of Energy and Mines.

<sup>8</sup> CSO, 2012.

<sup>9</sup> Table 7 in the Labour Force Survey 2012.

<sup>10</sup> According to Table 10 of the 2012 Labour Force Survey only the sectors of Education (141,672 formal jobs); Agriculture (87,927 formal jobs); and Manufacturing (77,408 formal jobs) now employ more workers directly than does Mining.



## Review of literature and good practice frameworks

It is not feasible in a short report to review all aspects of how mining can promote broad-based wealth and job creation. Instead this section describes two main areas of the literature.

The first area is a review of key aspects of the generic processes involved in converting sub-soil assets into an above the ground value, including the impacts on output, incomes and employment, local content and local community development. The second area is a brief review of good and best practice frameworks for specific interventions by government, companies or others including employers and workers organizations, donor agencies, non-governmental organizations (NGOs) and other parts of civil society.

### 3.1 Impacts of mining

The literature that has influenced policy ideas related to how mining impacts local economies has gone through a number of stages in the past 30 years. These are summarized briefly in Box 1 below.<sup>11</sup>

### 3.2 A general analytical framework

The central proposition in any framework that is designed to understand the socio-economic impacts of mining is that all the benefits of mining – whoever receives them – derive ultimately from **a value chain**. Understanding the components of this value-chain and how each component can be influenced by government, or indeed by any other organization, is fundamental to designing policy. **Figure 1** presents a simple graphic of the basic value chain.<sup>12</sup> It describes how sub-soil mineral assets need to be discovered, mined, produced and transformed into some monetary/financial form from which benefits can be obtained for human development. At various points throughout the value chain subsidiary processes exist, for example (i) public policies such as a fiscal regime and (ii) other players such as workers associations or international donors exert some influence over exactly how the various stages in the value chain work out in practice.

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<sup>11</sup> For examples of this literature, see: Sachs, J., Warner, A. (1995), 'Natural Resource Abundance and Economic Growth', National Bureau of Economic Research Working Paper 5398; Rosser, A. (2006), 'The political economy of the resource curse: A literature survey', IDS Working Paper 268; Robinson, J., Torvik, R., Verdier, T. (2006), 'Political Foundations of the Resource Curse', *Journal of Development Economics* 79, pp. 447–468; Ross, M. (1999), 'The political economy of the resource curse', *World Politics*, 51(2): 297–322; van der Ploeg, F. (2011), 'Natural Resources: Curse or Blessing?' *Journal of Economic Literature*, 49(2): 366–420.

<sup>12</sup> The source is EPSPEAKs, Topic Guide, Extractive Industries development and the role of donors, Oxford Policy Management, 2012.



### BOX 1 – Overview of the literature on mining’s impacts on local economies

In the late 1980s and 1990s academic research began to raise concerns about the so-called ‘resource curse’ – a term that is now widely used to describe a range of negative economic, political and social outcomes assumed to be associated with extractive industries. Subsequent research sought to explain these negative outcomes and identify their causes, in relation to different types of extractive industry activities (especially oil and gas versus mining).

By the late 1990s this essentially negative view of impact gave way to a more nuanced approach and understanding. Specifically, researchers and later policy-makers including donor agencies began to see that the resource curse need not be inevitable. Indeed they began to argue that sound institutional arrangements in host countries could be managed to help to ensure broadly positive economic and social outcomes. ‘Good governance’ – a concept that initially was only loosely defined – came to be seen as a way to ensure better management of the extractive resources sectors. One sub-theme under this general heading was the strong focus on *transparency* as a key component of ‘good governance’ and greater *accountability* as another: both highlighted by the Publish-What-You-Pay initiative and later by the Extractive Industries Transparency Initiative (EITI). Other aspects of good governance at both the national and local level were elaborated in a series of cases studies beginning in 2004 by the ICMM under its Resource Endowment Initiative (REI).

In the past few years there has been a growing emphasis on ways in which sub-soil natural resources can be turned into forms of human and physical capital, and how the extractive industries can be integrated more completely with the rest of the economy to ensure more sustainable outcomes from mining. This enquiry has been informed, *inter alia* by the experiences of countries that have successfully used their extractive industries as a catalyst for industrial development (a leading example is Chile). This line of enquiry has also coincided with the re-discovery of industrial policy as a legitimate policy tool to support economic and social transformation in low and middle income countries.

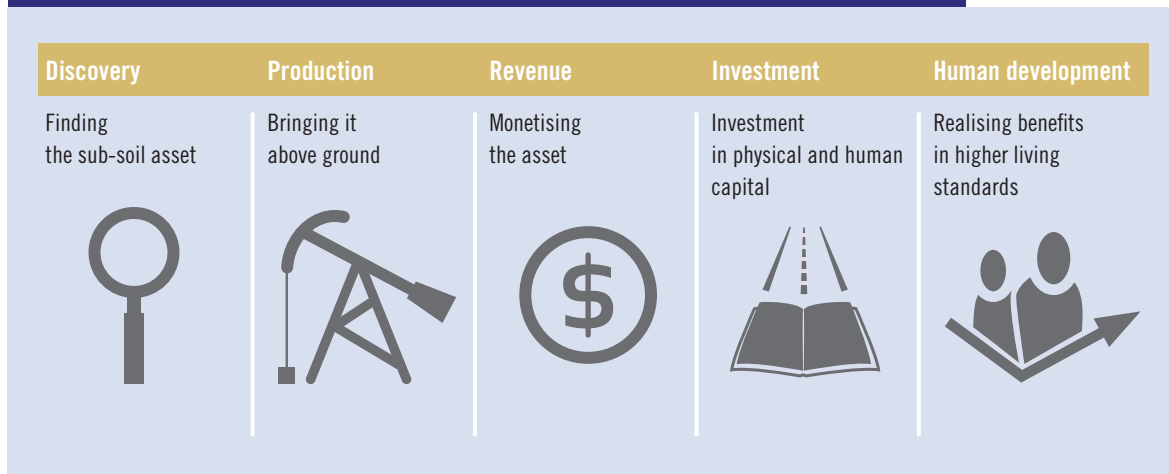
It is noted that even without any external policy or other interventions, the actions along the supply chain are certain to bring some spontaneous benefits in terms of higher incomes, more jobs and improved social conditions for some people. This is not to say of course that some other people may lose out – if for example previous non-mining livelihoods are lost or valuable amenities are damaged by pollution. The evidence for Zambia over the past decade indicates higher levels of income growth and improvement in a range of social indicators in the mining provinces of the Copperbelt and North Western compared with the rest of the country.<sup>13</sup> Much of this has derived from the large multiplier effects on output and jobs associated with mining as well as from the various direct effects. It is nonetheless the case that the absolute performance of the country generally including mining regions is relatively poor by international standards (evidenced by a low ranking on the UN Human Development Index).

Along the value chain, public policy can intersect and react with private commercial decision-making to affect outcomes. The four most important intersections are arguably as follows.

- **Revenue to government.** The taxes and royalties that mining companies pay obviously affects the commercial decisions and the outcomes of any mining project. But since the revenues collected can often be large, the manner in which such revenues get used by government can determine a great deal about the potential indirect benefits that mining can generate. Mistakes by government in this area – regarding either the tax rates, how tax is collected, or how it is spent – can both

<sup>13</sup> See OPM presentation to the ICMM Workshop on the MPD Toolkit, Lusaka, November 7th 2013.

FIGURE 1 – Asset transformation – from sub-soil asset to development



Source: Oxford Policy Management

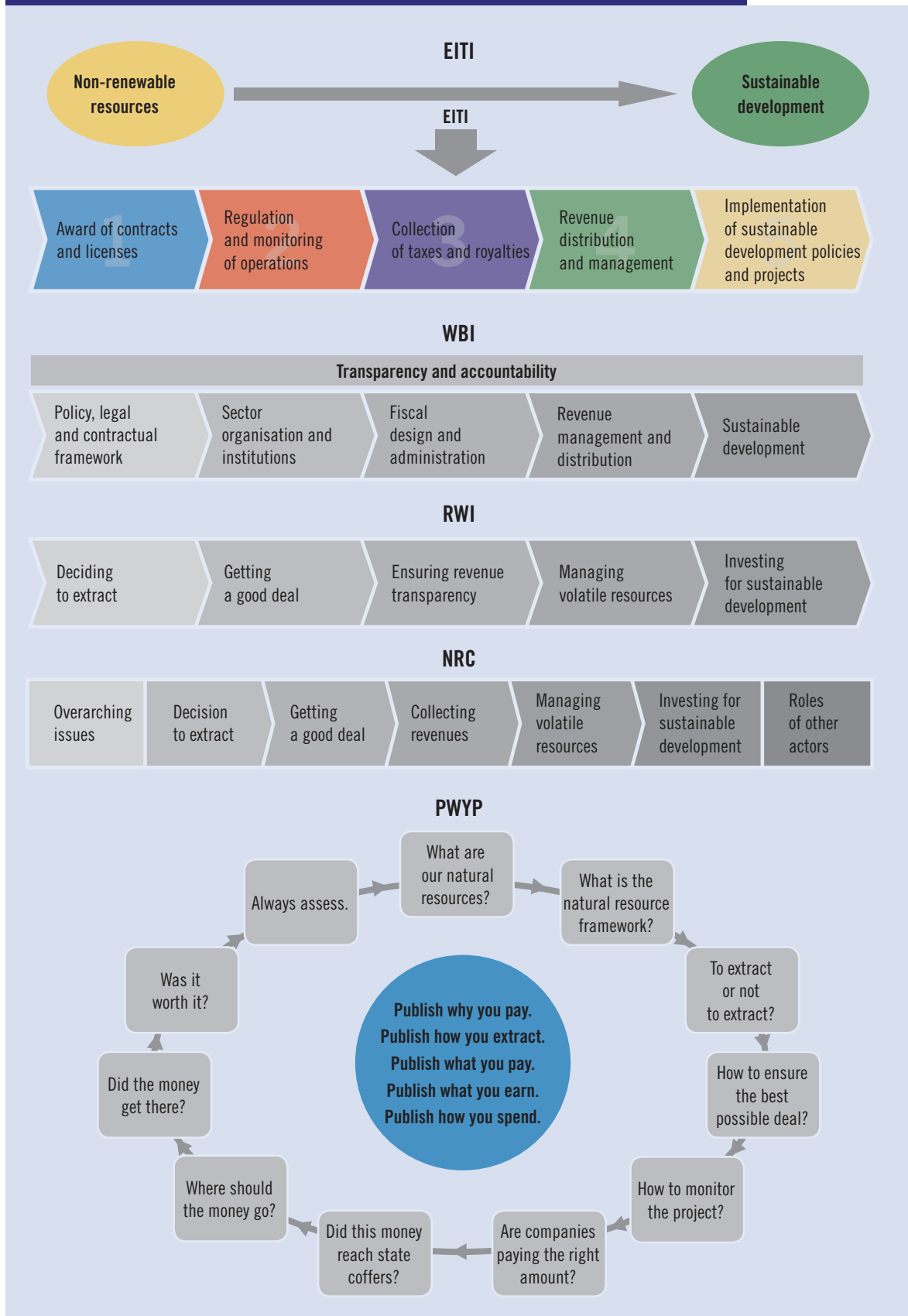
discourage further mining investment, and thereby limit the direct benefits of mining, and result in sub-optimal indirect benefits through the revenue spending process. Such mistakes would compound any possible under-payment of taxes by the mining companies.

- Infrastructure investment.** All mining projects need good infrastructure, such as roads, rail, water and power. Many of these assets are likely to be specific and internal to the mining operation in which case their societal benefits are limited. But they can also contribute to broader development in those cases where it is possible to make access available to others at a low marginal cost to the industry. The potential for positive externalities is greater where several projects are in close proximity, or along a common transport route to export markets. So government policies of, for example regional planning, can enhance these benefits by encouraging appropriate clusters of development to be built around mining as the catalyst. Of course the implementation of any such ideas is invariably difficult.
- Local content.** Where the direct employment impacts of mining are relatively small, the industry can have a much larger impact on indirect and induced employment through the generation of jobs in the supply chain, and through the provision of support services to develop a more specialised labour force for the industry. These types of impacts can be re-enforced by appropriate government policy towards industry and, in particular towards the enabling environment that encourages or discourages local business development.
- Education, training and hiring.** When attuned to the varying demands for labour across the project life cycle, and aligned with broader government policies on education, skills development and jobs, mining projects can create significant positive externalities in the labour market as a whole. A good recent example of initiatives to build skills for the mining industry is the African Mineral Skills Initiative (AMSI).<sup>14</sup>

Despite the intersection of interests discussed above, mining companies on their own are unlikely to have either the motivation or the ability to generate the full potential benefits – although in practice they often do take the leading role in jointly executed initiatives. Similarly, governments on their own

<sup>14</sup> To implement the Africa Mining Vision, the African Union, the United Nations Economic Commission for Africa (UNECA) and the African Development Bank (AfDB) have established an African Mineral Development Centre (AMDC). Within the AMDC, the African Mineral Skills Initiative (AMSI) has been set up as a multi-stakeholder private-public partnership, including UNECA, donors (AusAID) and industry (AngloGold Ashanti). AMSI's overall mandate is to support improved policy and planning frameworks for the extractives industry through country mining visions (CMVs), and innovative approaches to expand Africa's minerals skills base. The initiative is exploring modalities, including a challenge fund, for identifying and supporting in-country providers of education and skills development.

**FIGURE 2 – Selected examples of extractives industries value chains<sup>15</sup>**



Source Oxford Policy Management

<sup>15</sup> The source is EPS PEAKs, Topic Guide, Extractive Industries development and the role of donors, Oxford Policy Management, 2013.

can normally only do a limited amount given their own capacity constraints. Accordingly, cooperative ventures between mining companies and governments may allow more ambitious approaches and positive results than would be possible if either party were working alone. In addition, there will often be a role in technical advice and implementation for third parties, notably from NGOs and multilateral or donor agencies. There is an increasing number of examples from around the world of successful partnerships in a variety of different functional areas involving various combinations of companies, governments, multilateral agencies and donors, NGOs and other parts of civil society.

The ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) is an example of the types of roles and responsibilities suggested for the key players— especially for mining companies and government. The Multinational Enterprise (MNE) instrument provides specific guidance for government, companies and employers' and workers' organisations for good practice in the areas of general policies, employment, training, conditions of work and industrial relations in order to encourage the positive contribution of MNEs to socioeconomic development. Other approaches from other international organisations that build on the value chain framework are summarised in Figure 2 below. There is a great deal of common ground between these different frameworks since they all depend on the basic elements of the value chain. The differences lie mainly in the types of interventions along the value chain that the different frameworks choose to emphasise.

### 3.3 Frameworks for local and community development

The past few years have seen a growing number of international efforts to drill down beyond the basics of the value chain logic to offer detailed guidance, mainly to mining companies, but also to other players, such as government. The guidance has focused on how to approach and increase the benefits that can accrue to local communities.

Generally, this is done in the form of a framework of principles, substantial recommendations and collaborative procedures. Some are aimed specifically at the mining sector, while others are more general, although the mining sector is often a prime area of interest. In the following paragraphs, three examples of such frameworks are presented and discussed – out of the many more that have been launched over the past years. While the first is not limited to the mining sector, it is certainly applicable to it. The other two were prompted by concerns experienced by the privately owned mining sector and aim to enable mining companies to deal constructively with the aspirations of local communities, disadvantaged groups and businesses.

#### 3.3.1 The ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration)

The MNE Declaration<sup>16</sup> seeks to encourage the positive contributions of MNEs to socio-economic development and to both minimize and help resolve the various difficulties to which their operations may from time to time give rise. Since mining companies are often the major type of MNE operating in lower income countries such as Zambia, the Declaration is of direct relevance to the current project. The MNE Declaration was adopted by ILO's tripartite constituents (governments, employers' and workers' organizations) and it provides principled guidance in several main areas of employment and labour relations including:

- **Employment.** The aims here include the target of full employment, the active pursuit of forward and backward linkages to help achieve this, equality of opportunity and employment security.

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<sup>16</sup> The text of the MNE Declaration can be found at: [www.ilo.org/mnedeclaration](http://www.ilo.org/mnedeclaration); an E-learning module on its contents, relation to other like-minded frameworks and examples of practice can be found at: [www.ilo.org/mnelearning](http://www.ilo.org/mnelearning).

Specific roles and responsibilities are assigned to both government and enterprises in pursuing these aims. For example, enterprises are encouraged to prioritize the employment of nationals and to favour technologies which generate employment – direct and indirect.

- **Training.** The aims here are the development of effective national policies for vocational training (a role for government) and the contribution of skills development to enhance the employability and career opportunities of workers (a role involving enterprises)
- **Conditions of Work and Life.** In this area government is encouraged to adopt measures that can ensure that disadvantaged groups (e.g. lower income households and deprived regions) can obtain benefit from MNE activities. Enterprises are encouraged to provide the best possible, wages, benefits and conditions of work and certainly to satisfy the basic needs of workers and their families; to respect the minimum age for employment; and urgently to eliminate any child labour.
- **Industrial Relations.** The principles here ask government to fully respect Freedom of Association both for workers and for groups of MNEs. They also ask government to support the right to collective bargaining by labour. Similarly the principles ask enterprises to respect freedom of association for workers, give support to national employers' organisations, provide workers' representatives with the facilities necessary to develop collective agreements, establish systems of regular consultations, and include provisions for disputes resolution in collective agreements.

The principles and clear aims of the MNE Declaration provide the foundation for specific activities in particular countries. In the area of extractives, for example, work has already begun in Angola and Cote d'Ivoire to help increase diversification and build local linkages improved skills and encourage more SME activity. The sequence of events that would guide the application of the MNE Declaration in Zambia would include first broad-based consultations with government, employers and workers in the FDI-rich sector of mining in line with the ILO's "Decent Work Programme". This would be followed by more in-depth studies, the discussion of results, identification of priority areas, the establishment of on-going consultative mechanisms and the formulation of concrete joint actions in agreed areas. This present report constitutes one small part of this agenda.

An example of how the recommendations of the MNE Declaration can guide practice is the Ahafo Linkages Programme (ALP) in Ghana. A further example of emerging good practice in relation to the training component of the MNE Declaration is the African Mineral Skills Initiative (AMSI) (see footnote 14).

### 3.3.2 The Community Development Toolkit of the ICMM<sup>17</sup>

The Community Development Toolkit (CDT) from the ICMM relates to sustainability principle no. 9 enunciated as a condition for membership of the ICMM. The ninth principle states to "*contribute to the social, economic and institutional development of the communities in which we operate*" Although the guidance of the CDT is primarily targeted at mining companies, the authors anticipate that elements of the recommendations would have relevance for government and for local communities themselves. For example, they suggest that the government of a host country might choose to modify some elements of its licensing rules in order to make it clearer where responsibilities lie for implementing some of the actions listed in the toolkit.

<sup>17</sup> ICMM, Community Development Toolkit, revised 2012. The work for this Toolkit originated in 2005 in a joint project between the World Bank Group's Oil, Gas and Mining Policy Division, the Energy Sector Management Assistance Program (ESMAP) and the International Council on Mining and Metals (ICMM).

The basic rationale of the CDT is stated as follows: *“By supporting communities to develop themselves in a sustainable manner; a mining and metals company is simultaneously helping its own business to succeed. Mining operations and their community development programs should be viewed as a mutually beneficial partnership process to achieve sustainability.”*<sup>18</sup>

The acid test of good practice in this regards is stated in the following terms... *“how will programs fare when the mine has closed (remembering that this may happen sooner than planned). If on-going company support, leadership and maintenance will be required to keep a program going in good order, then it is not sustainable and will need to be reconsidered. This is where the real contrast between highly visible, tangible projects like road-building, and low-key, hard-to-demonstrate programs like women’s literacy programs is sharpest.”*<sup>19</sup>

The acid test is very tough in practice and it serves to emphasise the point that governments will often be key players in the process even when a project is initiated and driven on by a mining company. For example the sustainability of a new road or a new school will almost certainly require the long term commitment of government to prevent degradation (in the case of the road) and the absences of teachers (in the case of the school) when the mine is no longer around to meet the costs.

The CDT offers valuable guidance about good practice – particularly for mining companies – in five specific aspects of community relations namely:

1. Relationship tools – arrangements for identifying appropriate stakeholders, assessing their likely interest in the mining project, developing arrangements for consultation etc.
2. Planning tools – the processes of determining what the company hopes to contribute to the community, how it will resource that contribution, the methods of engaging and empowering the local stakeholders and internalising their own priorities etc.
3. Assessment tools – the definition of a baseline assessment for the communities affected, identifying the likely impacts of the project on that baseline both negative and positive and determining how best to manage these impacts through the life of the mine.
4. Management tools – the establishment of organisational arrangements for the ongoing management of the community: company interface including arrangements such as community development agreements; a formal company management and recording systems; community action plans; and resettlement agreements.
5. Monitoring and evaluation tools – the choice of indicators against which to monitor and evaluate progress and the definition of a “goal attainment scaling” system to help in the transparent presentation of the results of monitoring and evaluation (M&E) to a broad audience – including many with no deep understanding of formal statistical systems.

The CDT is a complex and multi-faceted system that in practice will be capable of implementation in most cases to only a partial extent. However, it certainly provides a comprehensive definition of good practice in all the areas listed. Real world examples that exemplify compliance with the components parts of the toolkit are also explained in the toolkit documentation and a listing of these is reproduced in Box 2 above.

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<sup>18</sup> CDT, p. 17.

<sup>19</sup> CDT, p. 22.

**BOX 2 – Community Development Toolkit: examples of good practice<sup>20</sup>****Tools 1 – relationships**

- Early participatory planning for closure. Newmont, Peru (p. 37)
- Stakeholder mapping to inform community programs. Gold Fields, Far Southeast gold-copper project, Philippines (p.51).
- Pre-operational implementation of Health, Safety, Environment and Community (HSEC) processes. BHP Billiton, multiple locations in Kalimantan, Indonesia (p. 61)
- Strengthening community engagement following mine expansion. Vale, Minas Gerais, Brazil (p. 70)
- Setting up an independent forum or process. Cerrejon coal mine in Colombia (p. 79)

**Tools 2 – planning**

- Institutional mapping of an inland fishing village. Wendo Tcham, Guinea-Bissau, 2004 (p.99)
- Financial Valuation (FV) Tool for sustainability investments. Newmont Ghana (p.121)

**Tools 3 – assessment**

- Example of a social baseline study table of contents. South Gobi Social, Economic and Environmental Baseline Study, 2008 (p. 131)
- Contributing to community health and economic development through improved agricultural techniques. Xstrata, Peru (p 141)

**Tools 4 – management**

- Incorporating impact assessment into the ongoing management of operations. Anglo American, worldwide (p. 163)
- Participatory planning, Resolute Mining Limited, Nzega District, Tanzania (p.170)
- Assisting growth and development of local suppliers through collaboration and capacity-building programs. BHP Billiton, Mozambique (p.176)
- Managing the impacts of resettlement. Ahafo, Newmont, Ghana (p.182)

**Tools 5 – monitoring and evaluation**

- Ideal criteria for indicators (adapted from Anglo American's Socio-Economic Assessment Toolbox (SEAT)) (p. 194)

<sup>20</sup> References are to page numbers in the CDT 2012 publication.

### 3.4 The Socio-Economic Assessment Toolbox of Anglo American<sup>21</sup>

The analytical framework provided by the Socio-Economic Assessment Toolbox (SEAT) of Anglo American is acknowledged to be the leader amongst the various mining-company specific frameworks that are known to the authors. It is now in its third and expanded edition.<sup>22</sup> Like ICMC's CDT, the SEAT provides the management teams of the company with a suite of tools that are designed to help them plan the full life cycle of an engagement with local communities where the company operates. This suite runs through the whole spectrum: from profiling the mining operation and its likely impacts ex ante; developing engagement approaches for the local communities; developing specific arrangements for managing the corporate interaction; monitoring and assessing actual impacts (during implementation and ex post); and reporting and sharing results with all stakeholders.

Anglo American claims significant successes with the SEAT approach which was first developed more than ten years ago. Version 3 of the Toolbox provides a wealth of highly detailed pro-forma schedules for collecting and analysing relevant information. It also provides guidance on interfacing successfully with those communities affected by large scale mining projects. As in the CDT there is also a wide range of real world and good practice examples in a variety of areas. Example includes the following.<sup>23</sup>

- Resettlement – lessons learned from the resettlement of the villages of Ga Puka and Ga Sekhalelo from a site close to their Mogalakwena Mine in South Africa's Limpopo Province (p. 106).
- Security and human rights – Cerrejón coal mine and security agreements with Colombia's security forces (p.143).
- Leveraging resources – the Anglo American Khula Mining Fund in South Africa (p. 157).
- Developing the local work force – the Barro Alto smelter in Brazil's Goiás State (p.173).
- Revenue transparency and local government capacity – the Cerrejón mine in the la Guajira state of Colombia (p. 189).
- Basic infrastructure – the Lebalelo water supply scheme on the eastern limb of the Bushveld Complex in Mpumalanga province in South Africa. (p. 212).
- Health – tackling AIDS and TB in a poor South African Community – Lillydale in the Bushbuckridge Municipality, Mpumalanga Province (p. 229).

#### 3.4.1 Key points about the international frameworks

The examples above indicate that there is a rich core of accumulated knowledge and ideas about how mining companies (mainly) but also other players might influence the mining value chain to enhance the employment and other benefits. Two general points are worth noting by way of conclusion at this stage.

First, the majority of the frameworks have originated with the mining companies themselves. There are important exceptions and not least the ILO's MNE Declaration and the Natural Resources Charter. But these articulate important points of principle without necessarily explaining, except in terms of general guidance, how those principles will be pursued 'on the ground'. It is perhaps not too surprising that the mining companies have done more of the detailed ground-level work to develop and explain actual practices and procedures – including some good-practice arrangements. There are

<sup>21</sup> AngloAmericam SEAT Socio-Economic Assessment Toolbox, Version 3, 2012.

<sup>22</sup> The salutation used when Anglo American accepted a major corporate award for SEAT in 2012 stated "SEAT ... is a unique attempt by a major company to incorporate impact assessment into the ongoing management of major operations".

<sup>23</sup> References are to page numbers in version 3 of the SEAT Toolbox.



good reasons for this which are spelled out in our concluding section. Although Governments have an interest in the same set of issues, their policies towards these issues are commonly subsumed in the broader agendas relating to those same issues for their country as a whole. To illustrate, it is uncommon for governments to articulate detailed sub-policies (on for example health care or industrialisation) specifically for mining-affected regions.

Second, the examples briefly described above show that host governments have significant choice in the degree of obligation they impose on mining companies as conditions for their concessions and licenses. The rich list of examples from both the CDT and the SEAT show that many international mining companies are sufficiently motivated to *self-impose* a wide range of conditions on themselves in order to obtain and then retain their social licenses to operate. It is an interesting challenge for any host government about how to mix and match *compulsion* (legally mandated conditions mandated by law for things like increased employment and higher levels of local procurement) against the helping hand to more self-imposed but basically *voluntary* actions in these areas. Some countries including Brazil have found a very interesting blend in which actions voluntarily agreed between mining companies and local communities become formalised as MOUs (memoranda of understanding) which then have the force of law behind them if and when they are breached. Current arrangements in Zambia are in flux in this respect at the present time. It is hoped that the examples presented above and more fully in Section 3.5 below will help policy-makers to decide on an appropriate future regime for this institutional aspect of their mineral policies.

### **3.5 Good practice: international examples**

This section is organised according to the specific institutions that have initiated significant practices – some of which can be categorised as “good or “best” practice. This is in order to keep the discussion closer to the tripartite approach used by the ILO. The institutions, in the order of discussion below, are government, corporates, donor agencies of various types and collaborative arrangements involving multiple partners. The organising principles of activity (as used in the ICMM’s CDT), such as, local content, regional planning and the other areas, are used as a secondary frame of reference.

The examples of good practice have been selected because they are considered by the authors to be representative of current good practices. This means, first, that they should have shown results that can be considered “good” (see below for exceptions to this) in terms of employment and wealth creation and that at least satisfy other criteria that can reasonably be used to assess mining operations, such as environmental sustainability and transparency and inclusiveness of process. Clearly, there is no absolute yardstick for measuring such results and accordingly, the assessment is subjective. Second, they should constitute examples of practices that can be replicated by other organizations. Third, information about the examples should be reasonably accessible so that those that wish to emulate part or all of the practice can find out more details.

It should be noted that a couple of the examples included do not necessarily represent good or best practices in the authors’ view. However, since they represent widespread practices that are believed by many to yield good results, they merit discussion and inclusion here.

Although the ILO commissioned this report, this does not necessarily mean that the practices presented are endorsed as good ones by the organization.

### **3.6 Governments as initiators: legislation and regulations**

The governmental contribution to promoting broad-based wealth and employment creation is delivered in two main ways: through legal and regulatory frameworks for mining; and through engage-

ment in specific mining-sector programmes. The intention in this report is limited to providing a broad overview of how legislation has been and is used to promote employment creation. There are fewer examples of government-initiated programmes that specifically target individual mining operations (see details above). The issues to be discussed in this section cover the following:

- Revenue sharing with lower level governments
- Mandatory downstream processing
- Local content
- Community relations and programmes.

### 3.6.1 Revenue sharing with lower level governments

In many countries tax revenue from mining is shared between national and lower level governments. Arrangements have been categorized according to two criteria:<sup>24</sup>

- **The degree of fiscal decentralisation**, affecting the way a nation empowers various parts and levels of its government to impose and collect taxes and fees from the private sector.
- **The degree of revenue sharing**, affecting how revenues collected by one or more parts of government are allocated for distribution to other governmental entities or for various investments or expenditures to non-governmental entities.

Fiscal decentralization is more common in federal states such as Australia, Canada and the United States, where it is a direct consequence of the jurisdiction that states or provinces hold over mineral legislation and taxation. In other countries, fiscal decentralization is an exception and revenue sharing is more common.

In general, revenue sharing has become more widespread in recent years. In Africa, the governments of the Democratic Republic of the Congo (DRC), Ghana, Mozambique and Uganda share royalties and/or corporate income tax proceeds with lower level governments and local communities and Botswana, Burkina Faso, the DRC and Madagascar share license fees.<sup>25</sup> However, revenue sharing is not yet the rule in mining economies. In important mining countries, such as Chile and Tanzania, the central government does not share mineral revenues with lower level authorities.

There is often a strong political pressure for revenue sharing and it is sometimes argued that it is necessary to ensure that the local communities affected by mining are able to benefit from its existence or that local communities can expect to receive additional public expenditure in order to account for mining's negative side effects.<sup>26</sup> A fundamental difficulty with sharing mineral revenues in most countries is that the timing of the flow of funds to lower level governments is often exactly opposite to the timing of their actual needs (see illustration in Figure 3). This is particularly the case with new projects, which often involve an early influx of people to a remote area.

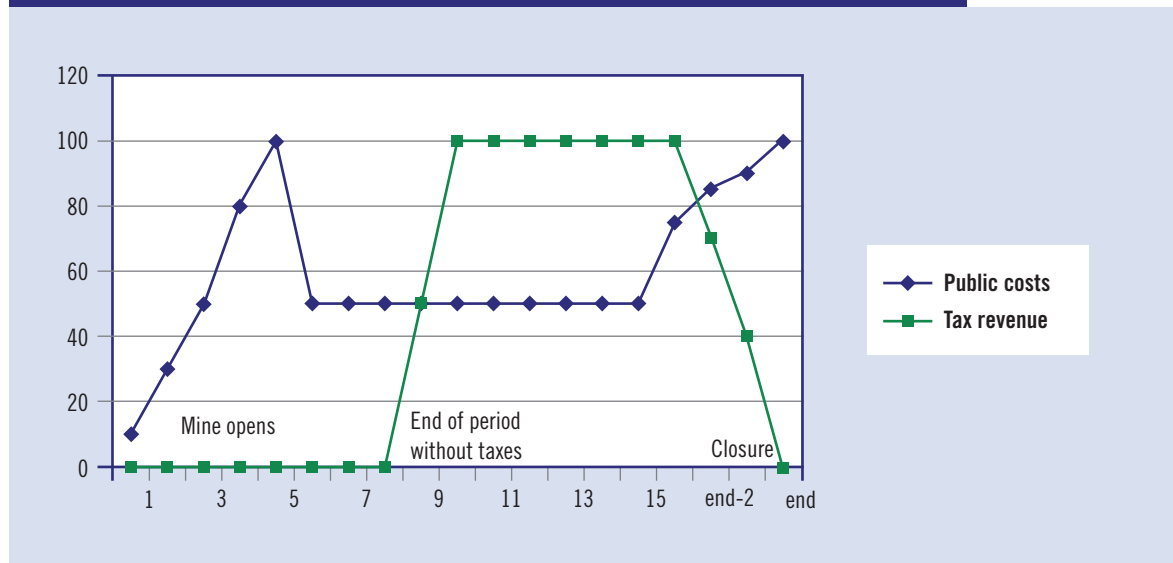
Another obvious problem is how to define the local community that is to receive the revenues. Other localities than the one where the mine is actually located may be affected by negative externalities and have good claims to getting a share of the revenues. Clearly, no precise allocation key will be seen as perfectly fair and equitable.

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<sup>24</sup> Otto, 2001.

<sup>25</sup> UNECA, 2008.

<sup>26</sup> ICMM, 2009.

**FIGURE 3 – Public costs and tax revenue over time in a typical mining project**


Source: authors

### 3.6.1.1 Example: Peru, Canon Minero

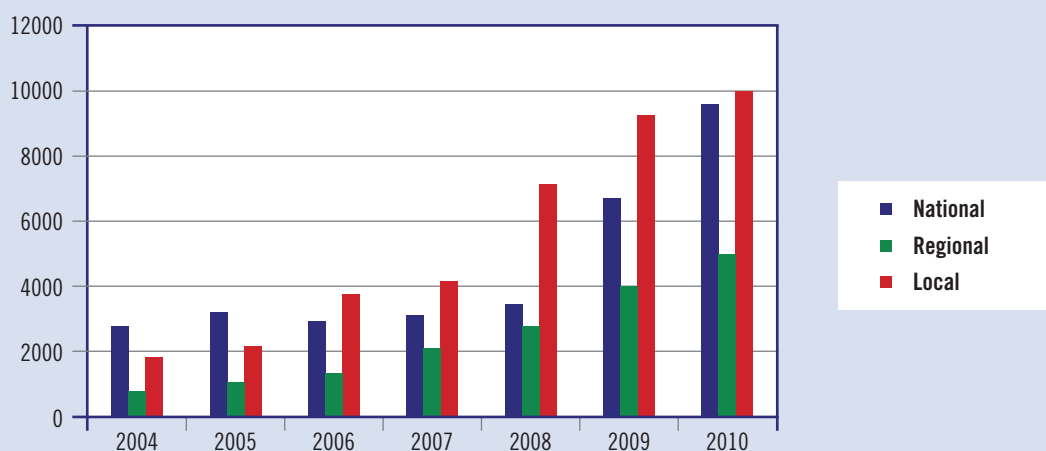
It is difficult to determine what may constitute best (or good) practice in the case of revenue sharing. However, Peru provides for an interesting case study, since it has a rich and varied history of applying revenue sharing in different ways. The approaches used are also well documented.

The most significant mining revenues in Peru flow from corporate income taxes, which are collected at the central government level. Through the “Canon Minero” mechanism, part of this revenue is directly redistributed to sub-national governments. The rules governing this mechanism have been subject to change over the years. This has been partly in reaction to efforts to push for greater government decentralization, and partly to demonstrate to sub-national governments the virtues of accepting mining operations in their jurisdictions. Since 2003, the proportion of corporate income tax paid by mining companies that is redistributed is 50 per cent. Transfers through the Canon Minero increased dramatically from 81 million Nuevos Soles (US\$ 29 million) in 2001 to 5,097 million Nuevos Soles (US\$ 1821 million) in 2012 (Sociedad Nacional de Minería, Petróleo y Energía). The criteria for distribution have changed several times. At present, they are as follows:<sup>27</sup>

- 10 per cent to *local municipal* governments where the mine is located (of which 30 per cent for productive investment for development of the community)
- 25 per cent to governments of the *district and province* where the mine is located
- 40 per cent to governments of the *department* where the mine is located
- 25 per cent to the government of the *region* where the mine is located (of which, 20 per cent to public universities in the region for research that contributes to the region’s development).

In addition, in 2005 a royalty tax was introduced which accrues to those sub-national entities in whose jurisdictions mining takes place. The rate is based on annual sales, starting at 1 per cent and rising to 3 per cent. A similar, but slightly different allocation key from the one used for the Canon Minero is applied. However, most large mining companies operating in Peru signed stability con-

<sup>27</sup> Source: Sociedad Nacional de Minería, Petróleo y Energía. Peru has five levels of sub-national government: regional, departmental, provincial, district and municipal.

**FIGURE 4 – Public investment in Peru, million Nuevos Soles**

Source: Baca Tupayachi, 2012

tracts with the government in the 1990s as a result, few of them pay any royalties.<sup>28</sup> To address this, a “Voluntary Support Fund” (Programa Minero Solidaridad con el Pueblo) was negotiated with the industry in 2006. Under this arrangement, participating companies are expected to contribute 3.75 per cent of after tax profits.

As seen from Figure 4, public investment has increased rapidly, particularly at the local level.

Since only some regions have large scale mining, the Canon Minero income is very unevenly distributed, as seen from Figure 5. While the central government has made some effort to even out the differences by prioritizing non-mining regions for other government investment, total public investment is higher per capita in the mining regions, which is maybe the intention.

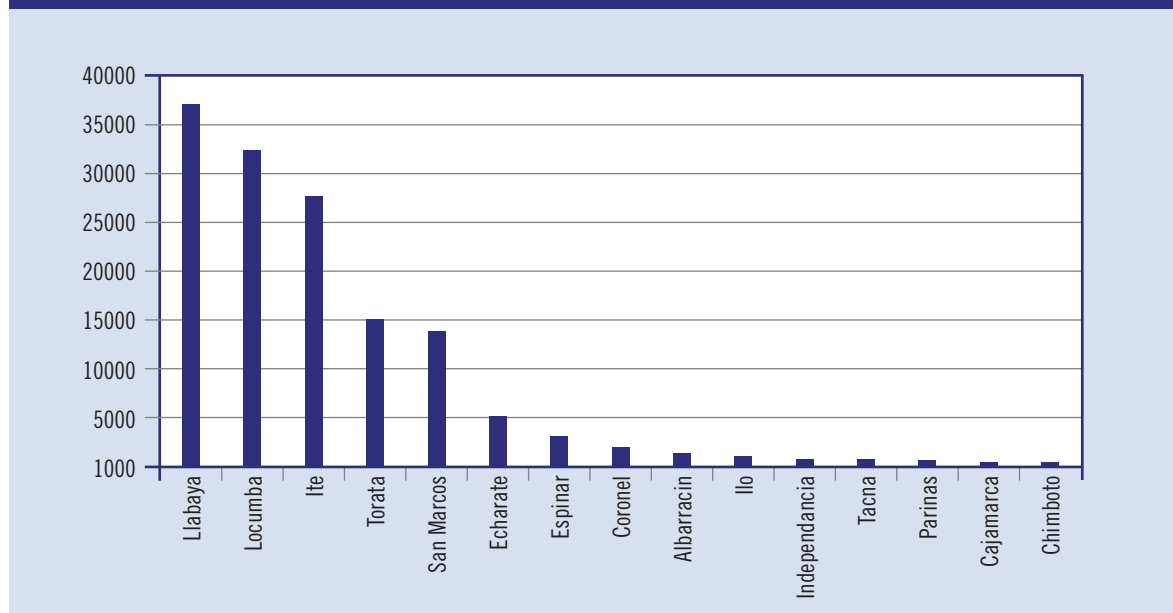
The most important question is whether the additional financial resources made available to the lower level governments have had a positive effect on employment and incomes. It should be noted that much of the investment has been made in social services such as education and health care where effects would only be expected in the longer term. Moreover, there should also be a visible effect on construction employment, since the Canon Minero funds can in principle only be used for capital investment.

A few studies have been carried out, trying to assess the effects. To the authors’ knowledge, there is no evidence that revenue sharing has had a significant impact on employment or incomes in mining areas.<sup>29</sup> A recent study<sup>30</sup> of one particular mine, the Yanacocha, concluded that the only significant effects of the mine on employment could be attributed to the mine’s and its employees’ local purchases. These effects were concentrated in the neighborhood of the mine and declined with distance.

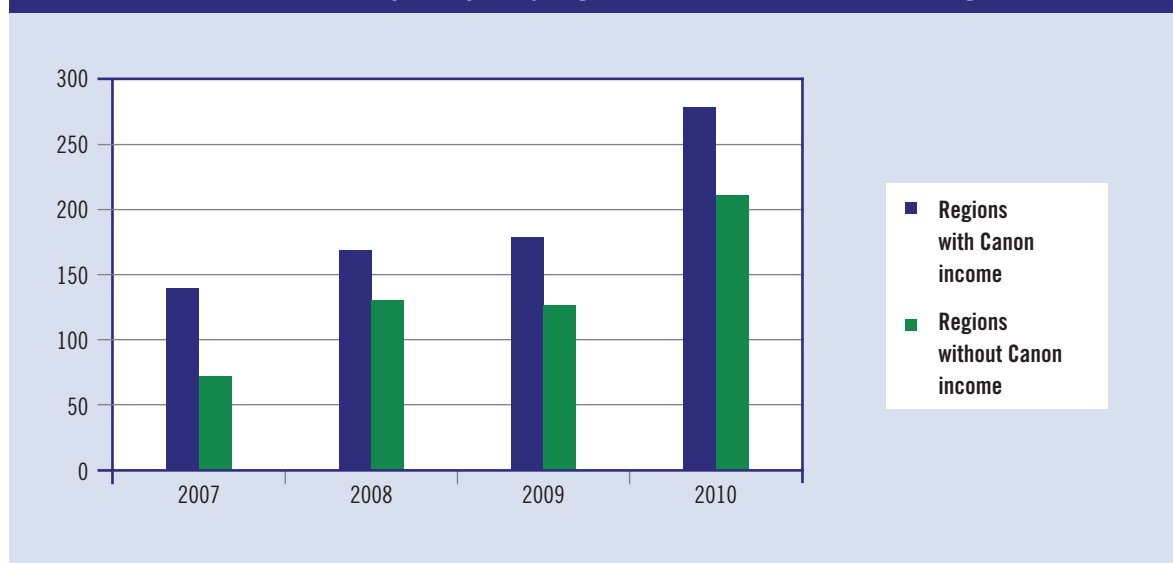
<sup>28</sup> ICMM, 2009.

<sup>29</sup> See some such studies quoted by Baca Tupayachi (2012).

<sup>30</sup> Aragón and Rud, 2011.

**FIGURE 5 – Canon Minero income by region, USD per capita, cumulative amount, 2006–2010**

Source: Baca Tupayachi, 2012

**FIGURE 6 – Public investment per capita by region in Peru, Nuevos Soles, average 2007–2010**

Source: Baca Tupayachi, 2012

Accordingly, it would appear that the investments financed through the Canon Minero have contributed little to the development of the local economy and to job generation. Part of the reason is probably that, as can be concluded from the study just cited, in spite of the impressive amounts that have been redistributed, the sums are still modest compared to the impact of the mine's and mine workers' spending.

### 3.6.2 Mandatory downstream processing

A number of jurisdictions attempt to influence mining companies with a view to increase downstream processing. Various methods are used, from relatively vague commitments by investors to give such

possibilities careful consideration to export taxes on unprocessed products and outright bans on such exports. The idea underlying export taxes and bans is that it is a natural progression for a country exporting raw materials to move downstream into the processing of these materials. Therefore, it can be argued, policies encouraging such downstream processing can improve trade performance and speed up the structural transformation of the economy.

However, in practice some mining companies probably have very good reasons not to process raw materials into processed products on their own account. If companies are not already doing it, it is probably not profitable, for instance, because of missing economies of scale, because important inputs have to be procured at high cost, or because the facilities are too far from consumers and being able to deliver rapidly.

It is of course possible that the cost to the mining company may be offset by benefits accruing to the rest of society, for instance, in terms of economic diversification and an improved skills base. Export taxes or bans based on an analysis showing that the benefits outweigh the costs might thus be justified. It is, however, very rare that such analyses are carried out in order to establish a strong economic case for the introduction of export taxes. Indeed the authors know of no such case. Instead, examples abound of export taxes on unprocessed materials being introduced “on trust” and thereafter resulting in either reduced production of the raw material or the establishment of processing facilities that exist solely because the export tax pushes down the price of the raw material sufficiently that the processors can cover their costs. Such processing facilities that depend on the continuation of the tax for their survival clearly lead a fragile existence. Examples of processing operations that would probably be unprofitable under normal circumstances include the small copper smelters set up in Katanga in the DRC, which could exist because of the DRC export tax on copper concentrates and the high transport cost. Most of these smelters closed rapidly when copper prices fell in late 2008.

It is also likely that the additional value added created through processing facilities built in order to avoid an export tax is small and in some cases negative. The example shown in Table 1 illustrates this point. The export tax is assumed to be 10 per cent and it is in the producer’s interest to build a smelter since profits in that case are higher than they would be if the concentrate was exported and the tax paid. However, in this example, the value added would be lower than in the case where only concentrate were produced, since such a large portion of the smelting cost would go to inputs. Accordingly, assuming, for the sake of argument, that all inputs are imported, building the smelter reduces GDP. A more likely development, however, is that mines that would be profitable to build and operate without the tax would never come into existence, leading to a loss of potential income.

A recent analysis of the effects of export taxes on unprocessed minerals in Indonesia shows that large welfare losses, on the order of US\$ 33 to 34 billion cumulative net value over six years could be expected, due to the loss of income from raw materials exports and high processing costs.<sup>31</sup> While all such calculations are based on assumptions, and the reality can only be assessed ex post, the basic argument will commonly hold true: obliging companies to do something they will not otherwise do involves a potentially large opportunity cost for the country.

It could be argued that two countries, namely China and India, have used export taxes on unprocessed minerals with good results. In both cases, however, the policy has been intended to protect the competitiveness of an existing industry rather than to push for structural change.

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<sup>31</sup> USAID, 2013.

**TABLE 1 – The incidence of an export tax: hypothetical example**

	Concentrate without tax	Concentrate with tax	Metal
Price	100	100	110
Production cost	80	80	95
of which, inputs	50	50	63
Wages	30	30	32
Export tax		10	
Profits (price minus production cost minus export tax)	20	10	15
Value added (wages plus profits before taxes)	50	50	47

### 3.6.2.1 Example: China, World Trade Organisation (WTO) dispute

In the case of China, export duties were levied on a number of minerals in order to assure the Chinese industry of favourable raw materials input prices. In June 2009, the European Union (EU) and the United States both filed requests for consultations with China under WTO rules. In August, they were joined by Mexico. According to the requests, China imposed quantitative restrictions on the export of bauxite, coke, fluor spar, silicon carbide, and zinc, and it also imposed export duties on bauxite, coke, fluor spar, magnesium, manganese, silicon metal, yellow phosphorus, and zinc. On 28 January 2013, after a long procedure, where WTO panels consistently found against China, China reported that the application of export duties and export quotas to the raw materials concerned had been removed with effect on 1 January 2013 (WTO Dispute Settlement, dispute DS 394).<sup>32</sup>

This example points to the risk of export taxes or bans being in conflict with a country's obligations under WTO rules. The risk should not be exaggerated, however, since in practice governments tend to pursue only WTO cases where they believe that they are suffering actual harmful effects, something that would not necessarily be the case with any export tax.

### 3.6.2.2 Example: India, export taxes on iron ore

In India, export duties have been imposed on iron ore for a number of years at varying rates, in order to assure the Indian steel industry of a secure supply of raw materials. The policy has resulted in a fall in Indian iron ore exports from 106 million tons in 2008 to 18.4 million tons in 2012. Production has fallen from 223 million tons to 140 million tons during the same period.<sup>33</sup> The closure by order of courts of some mines in the state of Karnataka that were operating without licenses contributed to the fall in production.<sup>34</sup> In May 2013, some Indian steel producers unsuccessfully lobbied government seeking a removal of the import duty on iron ore since they could not provision themselves from domestic sources.<sup>35</sup>

<sup>32</sup> [http://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds394\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds394_e.htm).

<sup>33</sup> UNCTAD, 2013, Creamer's Mining Weekly, 2013a.

<sup>34</sup> Creamer's Mining Weekly, 2013b.

<sup>35</sup> Creamer's Mining Weekly, 2013c

In conclusion, while it is possible that there exist examples of successfully applied mandatory processing policies, the circumstances are likely to be very particular and the authors do not know of any such examples.

### 3.6.3 Local content regulations<sup>36</sup>

A number of countries have introduced legislation intended to encourage the establishment and strengthening of backward linkages from mining and increased local content. Most countries are, in principle, constrained by WTO commitments in terms of the requirements they can impose with respect to local content. Members of the WTO are bound by the national treatment obligation (NTO) clause under which foreign companies cannot be forced to buy from local suppliers or hire local service suppliers if a better alternative in terms of price or quality exists abroad. Under these rules, legislation can require investors not to discriminate against local suppliers and to accord them preference if their prices and quality are equal to foreign suppliers, but they cannot be given any absolute preference.

Many developing countries are subject to exemptions from these rules. WTO rules include provisions for the “special and differential treatment” (SDT) of developing countries, which allow for certain exceptions. In addition, provisions exist to encourage foreign suppliers to assist in technology transfers and training through so-called ‘offsets’.<sup>37</sup> Therefore, local content policies that encourage offset activities in countries that benefit from SDT would not be in breach of such countries’ WTO commitments.

Some countries use legislation to express a general preference for local content, but without mandating specific requirements. This includes relatively successful mining countries, such as Chile, Peru and Australia. Other countries have more specific requirements stated in legislation or regulatory instruments – in some cases applying relatively ‘blunt’ industry-wide requirements. Such approaches may be distorting as they carry different costs of compliance on firms, depending on the nature of the mining activity (different production methods and old vs. new operations).

In other cases, industry-wide requirements are designed to increase gradually over time. Such initiatives may be most appropriate where the country is starting from a low base of industrial capacity and skills. It recognises that building skills and firm capabilities can take time, and that firms as well as government policy can support this development through their interventions.

Local content requirements can also be included in MDAs. The same issues apply as when local content requirements are set through legislation. Thus, where countries are bound by WTO commitments, the formula used in MDAs is usually close to the one suggested by the International Bar Association in the Model Mine Development Agreement.<sup>38</sup>

Many countries require mining companies to submit their own plans to increase domestic content over time. This approach recognises both the time it takes to build capabilities and skills, as well as the fact that issues may vary across different types of mining company. Examples include South Africa’s requirement for companies to submit Social and Labour Plans (SLPs). In many countries legislation requires that such plans are developed in a consultative manner as part of a company’s licensing procedure (e.g. Tanzania, Brazil, Guinea and Indonesia).

<sup>36</sup> This section is mainly based on OPM, (2013a).

<sup>37</sup> As Tordo et al. (2013) notes, “such offsets include preferential hiring and training of nationals, preferences for local sourcing, encouragement of inward investment, support to domestic suppliers to develop future competitiveness, and support of the development of operational infrastructure to be made available for public use (for example, roads, power, water supply, and so on).”

<sup>38</sup> The suggested wording is that “The Company shall, when purchasing goods and services required with respect to Mining operations, give first preference, at comparable quality, delivery schedule and price, to goods produced in the State and services provided by the State citizens or businesses, subject to technical acceptability and availability of the relevant goods and services in the State” (International Bar Association, 2011).



In conclusion, local content legislation exists on a spectrum from setting out broad policy priorities, to industry-wide ‘blunt instruments’. In part because more aggressive mandated local content is a ‘new’ area, there is limited evidence of its impact on business decisions. Due to the limited availability of data, most of the evidence regarding how firms have responded to mandated local content initiatives is anecdotal. In some cases, aggressive government policy on local content appears to have generated perverse effects. For example, in order to adjust to the requirements on local employment in Ghana, some companies have found it easier to relocate company divisions outside of Ghana than to recruit sufficient nationals to satisfy regulations.<sup>39</sup> Many local content regulations require significant monitoring and reporting that is unlikely to be consistently enforced by weak government administrations. For example, the experience in implementing the requirement for SDP in South Africa has been mixed. As the following example demonstrates, governments can, however, initiate positive developments by working together with industry.

### 3.6.3.1 Example: Chile Region II

In the late 1990s, at the initiative of the government’s regional representative, a joint program by government and industry to develop a mining cluster in Region II (Antofagasta) was established.<sup>40</sup> The main participants in the program were the national government through its ministerial representatives in the region, the mining industry and the Industrial Association of Region II (which also organizes the mining companies). Under the program, various initiatives have been taken to foster the development of a mining cluster. The government allocated US\$15 million over the period 2002 to 2006, and this sum was matched by the mining companies. The most important undertaking was a drive to assist local companies linked to the mining industry to obtain International Organization for Standardisation (ISO) 9000 and 14000 certification. The number of certified companies grew from 8 in 2002 to 122 at the end of 2004. The cost of certification was shared between the Government, mining companies and the participating enterprises. It is believed that the certification will make the companies more competitive, particularly in export markets, and so far, this appears to have been the case.

## 3.6.4 Community consultations

Increasingly, mining companies are required by legislation to consult with the local communities affected by the proposed operations. The scope of such consultations may vary and usually companies are not required to conclude binding agreements with the communities. However, in most cases, companies find it in their interest to try to reach agreement with the communities on terms that they can consider, for practical purposes at least, as binding.

### 3.6.4.1 Example: Papua New Guinea, Development Forums

In very few cases, companies have an obligation to reach a legally binding agreement with communities. The best known example is from Papua New Guinea (PNG).<sup>41</sup> The PNG Mining Act establishes that the holder of a tenement should not enter or occupy land for the purpose of mining until they have reached and registered an agreement with the project landowners on the amount, times and mode of compensation. Since 97 per cent of land in PNG is held under customary tenure, mining activities can thus only be conducted with the consent of traditional landowners.

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<sup>39</sup> (SDSG, 2012. This includes the relocation of Gold Fields’ West African Head Office from Ghana to South Africa (SDSG 2012).

<sup>40</sup> The description is based on ICMM, 2007.

<sup>41</sup> The description in the following is based on Environmental Resource Management, 2010.

The principle of compensation and the need to reach agreement on this are complemented by the Development Forums. Section 3 of the Act states that:

*“A Development Forum shall be convened by the Minister before the grant of any Special Mining Lease (SML) to consider the views of those persons who the Minister believes will be affected by the grant of that SML and shall be conducted by the Minister according to such procedures as will afford a fair hearing to all participants.”*

The Development Forum would provide a forum for consultation, not for modification of the proposed development, and would not provide a right of veto to the various parties, although the Minister could decline to grant a SML based on the outcome of consultations. In providing a mechanism for landowner and provincial government participation, the Development Forum has created a democratic process for resource development discussions and decision making. It has ensured high standards of transparency in identifying benefits and accountabilities. Development Forums have succeeded in securing a higher level of community support for mining development and the Memoranda of Agreement (MOAs) that emerge from the Forums provide at least an opportunity to achieve a greater degree of sustainable development for local communities. The MOAs typically define:

- Distribution mechanisms and percentages of royalties to provincial institutions and landowners
- The extent of additional budgetary support to local level government
- The distribution of special support grant between provincial and local level governments
- Any national government infrastructure development commitments
- Business development activities and the amounts and timing of any special grants for business development.

While the Development Forums may lead to solutions that are not fully in line with national political priorities, they have succeeded in reducing conflicts over natural resource use and provide a workable solution in a very complicated institutional context.

### **3.7 Corporate initiatives**

Corporate initiatives are often developed in response to pressure from governments, employees or local communities. This may lead to a focus on short term solutions and “easy fixes”. There are, however, an increasing number of well-designed and effective corporate programmes that aim to promote local employment and wealth generation and that have been developed over long periods, usually in collaboration with local communities and other interested parties. The issues to be discussed in this section cover the following:

- Supply chain development
- Employment
- Local business development
- Regional development
- Infrastructure

#### **3.7.1 Supply chain development**

Many mining companies invest in improving the capability of local suppliers. For the mining company, there are obvious advantages to building relationships with local suppliers in terms of facility

of contacts, likelihood of a long term business relationship and good relations with local communities. Some companies have developed specific programmes aiming to improve the capacity of local suppliers.

### 3.7.1.1 Example: Anglo American, South Africa

Anglo Zimele (AZ) was set up in 1989 by Anglo American with the objective of supporting enterprise development.<sup>42</sup> The policy context was critical in the establishment of this initiative, which can be seen as a successful response to the emerging Black Economic Empowerment policy at the time in South Africa.

The AZ initiative currently includes five funds, the biggest of which is the ‘supply chain’ fund. The fund supports small- and medium-sized enterprises (SMEs) with financing (debt and equity), advisory services (technical and business advice) and implementation (mentoring during project delivery). These services are delivered by 60 dedicated Anglo American employees. AZ is run on a commercial basis – funding is provided where it is expected to generate a return (AZ does not provide any grant funding). Between 2008 and 2011 AZ funded 1,085 mostly medium-sized companies (Anglo American 2013).

The AZ strategy is to provide equity funding (up to 49 per cent) as well as support with unsecured debt financing when appropriate. The provision of equity stakes allows for alignment of incentives, and increases commitments of providing business advisory support. Exit is normally within 3–5 years.

Governance arrangements include a Board that meets every six months, and an investment committee that meets every month. The initiative is implemented through a network of regional ‘hubs’ that distribute services, including support on corporate governance and management; legal, accounting and public relations; and safety health and environmental standards.

A key feature of AZ is its combination of a proactive and demand-driven approach to identifying gaps in the market. On the one hand, AZ is in touch with Anglo American business units in South Africa to understand their future demands and perceived constraints on supply, thereby informing the approach to targeting SMEs for enterprise development. On the other hand, AZ responds to applications for funding submitted by entrepreneurs who approach AZ with a business idea or proposal, in particular in areas of economic potential that are not part of the mining supply chain.

## 3.7.2 Employment

One of the most difficult subjects for large mining projects to deal with is local recruitment of labour. Expectations are often very high and local populations are almost inevitably disappointed if and when relatively few of the locals can be recruited due to skills limitations. While most mining companies give priority to local recruits where possible, few take a broader view of the effects of their hiring policies on local communities.

### 3.7.2.1 Example: Diavik, Rio Tinto, Canada

The Diavik Diamond Mine in Canada’s Northwest Territories has applied an integrated approach to local training, employment and procurement.<sup>43</sup> The approach built on a series of agreements and policy statements, in particular a Socio-Economic Monitoring Agreement (SEMA) negotiated with the

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<sup>42</sup> The description is based on ICMM, 2010.

<sup>43</sup> The description is based on ICMM, 2010.

Government of the Northwest Territories and five neighbouring Aboriginal groups in 1999. The mine also signed five *Participation Agreements* (PAs) directly with neighbouring indigenous communities. The PAs formalise commitments for both the mine and the aboriginal signatories to work together to maximise community benefits by identifying business opportunities for Aboriginal service providers, employment and training opportunities for community residents, and support for community educational initiatives.

As of December 2008, the mine's spending with Aboriginal businesses had surpassed CDN 1.7 billion. Total spending with regional businesses was at CDN 3 billion; over 70 per cent of the CDN 4.1 billion that the mine had spent since 2000.

The mine employed about 800 people by 2008 and had met its target of having 67 per cent of its work force comprised of Northern residents. Although the mine did not meet its Aboriginal employment commitment, reaching 34 per cent instead of the targeted 42 per cent in 2008, this was not an issue, since the absolute number of people was far higher than the original estimate.

While most Aboriginal employees are first engaged in entry-level or semi-skilled positions, the mine seeks to expand their skills through its own apprenticeship and professional development programmes, as well as with a community and government partnership that administers a series of work force development programmes. The mine has designed a leadership development programme targeting Aboriginal employees and contractors. Besides completing a customised curriculum based on Rio Tinto leadership competencies, participants are also matched with a mine manager as a mentor.

### 3.7.2.2 Example: MMG, Sepon, Lao PDR

The Sepon Mining Project is a gold and copper mine located in southern Lao PDR.<sup>44</sup> Gold had been produced since 2002 and copper since 2005. Direct employment at the mining company has varied from 1,700 to 2,400 people over time, while indirect employment, defined here as all those employed by suppliers of goods and services to the mine, has varied from around 1,000 to 3,500 depending on whether construction has been going on or not. MMG Sepon is committed to giving preference to employing people from the communities and areas closest to its operations. Recruitment, at least in the mine's initial stages was specifically to be based on "aptitude" rather than "formal education qualifications" – a tactic designed to by-pass the lower levels of schooling of the Mon Khmer speakers, and one that has generally worked as planned. Between 2004 and 2006, more than 50% of job vacancies were filled by people living in the vicinity of MMG Sepon's operation. In 2007, this rate started to decline, and seems to have stabilized at around 35% in 2008 and 2009.

In addition to giving priority to people from the local communities, MMG Sepon also gives priority to women, and the percentage of female employees has varied from 15 to 19 per cent, somewhat higher than normal in the industry.

MMG Sepon has also attempted to ensure that recruitment policies are understood by the local population to be fair. One example is that the company has attempted to employ one person from each household in the closest villages, but not more than one, in order to ensure that the benefits of mine employment are shared equitably. The company has also made sure that a slight preference was given to the poorer of the two local ethnic groups. As a result, household surveys carried out by the company at two year intervals show that income equality has improved, both within and between villages and ethnic groups.

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<sup>44</sup> The description here is mainly based on ICMM, 2011, and on personal communications from MMG Sepon officials.

### 3.7.3 Local business development

By stimulating local businesses mining companies can exploit the fact that induced employment has raised local demand for consumer goods and at the same time assist in laying a basis for diversified economic development.

#### 3.7.3.1 Example: Antamina, Ancash, Peru

In 2006, the Antamina Mining Company (owned by BHP Billiton, Xstrata, Teck Resources, Mitsubishi) established the Antamina Mining Fund (AMF), based on an agreement between the company and the Government of Peru, according to which 3.75 per cent of the company's after tax profits would go to the Fund.<sup>45</sup> As of 2011, AMF contributions had reached US\$ 262.9 million (Antamina, undated).

In 2008, the PRA project (Poverty Relief and Alleviation) involved 18 agriculture and tourism products. With a budget of more than half a million dollars, the aim was to achieve 1.2 million dollars in sales over a sixteen month period. During 2009, the project has worked with 1,398 beneficiaries in twelve productive supply chains and achieved sales increases in the amount of US\$ 4.9 million and generated the equivalent of 2,516 jobs (AMF, 2009).

The project involves five steps:

- Building trust with a national or international buyer that leads to a sales contract
- Finding local farmers or businesses willing to improve their products or services to enable them to fulfil the sales contract
- Providing the farmer or business with skills training that will enable them to meet the buyer's needs
- Encouraging financing and investment from the buyer, microfinance institutions, municipalities and non-governmental organisations
- Recording the resulting sales growth and job creation among poor, previously unlinked farmers, business owners and workers – helping the farm or business to sustainability.

By starting with a contract for a product, the local producer undertaking to supply the product can be more confident of a market and of the price they will receive for their crop or product.

The project encourages the growing of native Andean species for environmental, cultural and economic reasons. An example is farming the tara tree. Part of the tree's roots are harvested and processed to provide natural leather dyes that are highly favoured by European buyers. The tree requires little water, withstands high altitudes, can be harvested after four years and is economically viable for 25 years. Another example is farming kiwicha, a native grain that is more nutrient rich than imported grains such as wheat. Recognition of the advantages of kiwicha also helps to build self-esteem among local people. Other products include farmed fish, sheep and cow skins, wool, paprika and avocados.

### 3.7.4 Regional development

Large scale mining investment poses challenges and opportunities for local governments that are responsible for economic development. These governments are seldom prepared for the new responsibilities and may not be able to draw up and implement plans for regional development that make the most of the opportunities offered by mining projects or that prepare the local economy for the

<sup>45</sup> The description is mainly based on ICMM, 2010.

eventual closure of the mine. Some mining companies have attempted to assist local governments with their planning tasks or to help them improve their planning capacity.

### 3.7.5 Example: AngloGold Ashanti, Brazil<sup>46</sup>

In 1995, the lower level of the Morro Velho mine in Nova Lima was closed. At that time, AngloGold Ashanti took the initiative to create the Nova Lima Development Agency. The partnership was formed with the town authorities, the local Commercial Association, SEBRAE (support to small and medium-sized business, a non-governmental entity sponsored by the Industry Federation) and another mining company, Minerações Brasileiras Reunidas (MBR).

At the time of final closure, in 2003, the mine had been in operation for 161 years; employing 7,000 people at its peak in 1975.

An initial analysis showed that Nova Lima had the potential to develop services such as hospitals, universities and hotels owing to its proximity to the provincial capital Belo Horizonte. Another area highlighted by the analysis was the need for computer skills among the local population in order to create a service sector. Out of this was born the SEBRAE Technical School of Management, which the mining company supports with several scholarships.

From the start of the project until 2008, Nova Lima attracted more than 80 new companies in sectors such as hospitals, hotels, food service enterprises and university facilities, which have generated 6,000 new jobs.

### 3.7.6 Infrastructure

Most large mines require important investments in infrastructure for inputs and machinery to be brought in and finished products to be transported out. Such infrastructure can often be used by local populations and other economic activities and can position a region for more rapid economic development and diversification.

#### 3.7.6.1 Example: Tenke Fungurume Mining (TFM), Katanga, DRC

TFM began commercial operations at its mine in Katanga in 2009.<sup>47</sup> Copper is produced in the form of cathodes, which are transported by truck to export ports in Namibia, South Africa and Tanzania. Output reached 195,000 tonnes on an annualised basis in 2012. Further expansions are planned which could bring production to 400,000 tons per year.

The most important settlement in the area is Fungurume, a town within the concession area. The concession area also includes several villages. When development work for the mine started in 2006, almost all of the inhabitants in the concession area were either subsistence farmers or artisanal miners. Since then, Fungurume's population has tripled and the local economy has grown to include a large number of diverse commercial establishments, providing jobs to about 2,000 people. While most of this development can be attributed to induced employment, two actions by TFM were crucial. First, the company improved the road between Fungurume and Lubumbashi – the provincial capital, cutting the driving time from two days to four hours, and it built a new market. The improved road made it possible for traders from other parts of the province to reach Fungurume, thus increasing local supplies of consumer goods. Second, it also provided local farmers with an outlet for their

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<sup>46</sup> The description is based on ICMM, 2010.

<sup>47</sup> The description is based on OPM, 2013b.

produce, allowing them to earn cash income (the area had an almost completely non-monetary economy before the mine). As a result, local incomes have improved, the local food price inflation that is often associated with large mining projects has been kept in check and the nutritional status of the population has improved.

### 3.8 Multilateral organisations or donor initiatives

Donor interventions can be grouped into three main categories which together span most parts of the mineral value chain. The issues to be discussed in this section cover the following:

- Technical assistance for governments (and occasionally for communities)
- Support to transparency and accountability initiatives, and
- Specific partnerships with the private sector.

#### 3.8.1 Technical assistance

Technical assistance to governments has been the dominant form of support from multilateral and bilateral donors. It is difficult to comment on which cases best represent good practice – in the absence of detailed evaluation reports – but most of the initiatives listed below seem to have been valued by the host governments. Examples include:

- At the beginning of the value-chain, Norad and AusAID have provided assistance in various aspects of *geology and geological mapping*. More recently the German Federal Ministry of Economic Cooperation and Development (BMZ) has launched technical cooperation projects focusing on mining and environmental geology and geo-resources management projects.
- Also supporting the early stages of the value-chain, *mineral sector legal frameworks* have been supported by several donors. Frequently this has been done through the creation of specific facilities within donor institutions (e.g. the World Bank's Extractive Industries Technical Advisory Facility, the African Development Bank's African Legal Support Facility, and the UNDP's Regional Project for Capacity Development for Negotiating and Regulating Investment Contracts; or through the creation of entirely separate institutions partly funded by donors (e.g. the International Development Law Organisation and the International Senior Lawyers Project).
- *Fiscal and revenue management*. The World Bank, the International Monetary Fund (IMF) and the IFC have dominated most of the assistance provided in this later component of the value chain, usually in the context of a broader governance agenda. Other donors include Canadian International Development Agency (CIDA) and Norwegian Agency for Development Co-Operation (Norad) and bilateral country-specific programmes (e.g. UK Department for International Development's (DFID) programme supporting the Ugandan Revenue Authority). Most assistance has focused on revenue management at the national level, but some more recent projects broaden the focus to include revenue management at the local level (e.g. an IFC, CIDA and Norad programme in Peru).

#### 3.8.2 Transparency and accountability

This has been a major growth area for donors in the past decade as the issues of effective governance started to attract more attention. The Extractive Industries Transparency Initiative (EITI) is easily the most high profile and leading edge initiative and one that has attracted support from a multiplicity of

donors.<sup>48</sup> The EITI's core objective is to increase transparency and improve governance in extractive industries by collecting and reconciling revenue information from the major actors in the industry, namely companies and governments. There is general agreement that it has made some good progress in this regard in several countries that have become "EITI compliant": including Zambia. However, progress in extending the EITI's functions to cover more aspects of the utilisation of mineral revenues (and not merely their collection) has been quite slow – arguably because of the slow pace of reaching agreement between different donors and the resulting lowest common denominator tendencies that affect many multi-donor initiatives.<sup>49</sup>

### 3.8.3 Private sector partnerships

Donors have established partnerships with the private mining sector and others active in the tripartite relationship in a variety of areas. They have also facilitated programmes linking the private sector with government, civil society or educational institutes. The active donors in these areas include the IFC and USAID, and to a lesser extent Norad, CIDA and the World Bank. The rationale is often to extend the otherwise limited capacities of host country governments both central and local. Examples – many of them exemplifying good practice – include:

- **Local business development, supply chains and local content.** The IFC's Oil, Gas & Mining Business Linkages programme develops local supply chains by facilitating access to finance for small businesses, and training and capacity building for SMEs in industry standards and tendering processes; and USAID's micro-finance and business training programmes and SME development programmes
- **Sector-specific skills development.** USAID in collaboration with Chevron and BP provide vocational training and workforce development in Asia, Middle East and Africa, including Angola (where a business training centre was established) and Indonesia (where a technical training college was established); CIDA has also supported skills development e.g. through a project in Burkina Faso to improve vocational and technical training, in collaboration with IAMGOLD, Plan Canada and the Ministry of Education.
- **Local government capacity building.** The IFC/World Bank's Oil, Gas, and Mining Sustainable Community Development Fund (CommDev) fund provides capacity building for local government in revenue management; and USAID have worked in partnership with Yanacocha Mining Company in Peru and with British Petroleum Plc. (BP) in Indonesia to strengthen municipal financial management, with Chevron in Angola to strengthen local governance and with SUAL International Ltd. in Russia to improve municipal planning.
- **Shared infrastructure projects.** One example is the World Bank's 'Integrated Growth Poles Project' which involved collaboration with Rio Tinto and various government authorities for the construction of a dual use port in Madagascar.
- **Environmental awareness.** Examples include World Bank/IFC's Oil Gas and Mining Sustainable Community Development Fund (CommDev) which provides IFC clients with assistance in managing environmental risk; USAID have partnered with Rio Tinto in Madagascar to promote conservation efforts and with BP in Indonesia to promote sustainable forest management; and DFID's Facility for Oil Sector Transparency (FOSTER) programme in Nigeria which works with stakeholders in the Niger Delta on issues of environmental monitoring and management.

<sup>48</sup> The World Bank's multi-donor trust fund provides funding and technical assistance, together with support from donors such as the African Development Bank, the European Commission and the governments of the UK, Germany, Netherlands, Norway, Australia, Belgium, France, Canada, Spain and the USA.

<sup>49</sup> Several NGOs such as the Revenue Watch Institute (RWI) have received funding from multilateral and bilateral donors to support their work in putting 'bottom-up' pressure on governments and companies to account for revenue and demonstrate the developmental impacts of projects.



Looking ahead and especially to the needs of Zambia, there are perhaps three areas in particular where the donor community can make a significant contribution in partnership with mining companies and in support of government. These are the local content in the supply chain; the possible externalities to education and training; and public investment in physical and human capital. All three offer opportunities for partnerships where donors and the private sector can leverage on each other's strengths to create successful programmes. Also in all three cases there are existing examples of good practice and working models on which to base future interventions.

### **3.9 Collaborative initiatives**

A number of the more successful employment and wealth generating initiatives associated with the mining and metals industry have occurred as collaborative schemes from the outset. This illustrates among other things that in order for projects to work well, all the interested parties need to participate actively at the planning and ideas stages.

#### **3.9.1.1 Example: the Mozal aluminium smelter, Mozambique and South Africa**

Mozal is a US\$ 2 billion aluminum smelter built near Maputo, Mozambique owned by BHP Billiton, Mitsubishi, the government of Mozambique, and the Industrial Development Corporation of South Africa.<sup>50</sup> The smelter commenced operations in 1999 and the plant was doubled in size in 2001. Finance was raised from a number of development finance institutions and the IFC. From the outset a local enterprise development programme labeled Mozlink was incorporated into the project as a program run by IFC and Mozal in association with the Government Mozambican Investment Promotion Center.

Mozlink grew out of the Small and Medium Enterprise Empowerment Linkages Program started early in the construction phase in 2001 to train and mentor local SMEs to enable them to bid, win, and deliver on construction contracts in conformance with the Mozal standards. Success during the construction phase promoted the formation of Mozlink to provide technical and managerial assistance to upgrade the capacity of local Mozambican SME suppliers to be able to participate in Mozal's supply chain for goods and services. The programme's objective was to promote the participation of local communities in major resource projects and strengthening local supply chains.

By 2007 the MozLink programme had recorded the following results as reported by: Jaspers and Mehta, 2007. It has successfully built the capacities of 45 local SMEs. Mozal had raised its monthly spend to US\$17 million with 250 Mozambican companies. Annual local purchasing from MozLink-affiliated companies increased from \$5 million in 2001 to US\$13 million in 2005. SME performance in key areas of quality, management, maintenance, and safety had improved by 20 per cent on average. The Mozambique Organization for Quality (AMISQ) was established to promote and train Mozambican companies in international health, safety, quality, and environmental standards. The Mozambican Business Network was formed to encourage interaction between SMEs. Furthermore, based on the success of the Mozlink programme an additional three year linkage programme was started with IFC backing and the participation of large foreign investors to boost participation of local Mozambican SMEs in procurement programmes for mining, natural gas and other industrial projects.

From the perspective of linkages, Mozal's development of backward linkages to a large scale FDI project has shown considerable success. The component factors that have underpinned this success are the central position of the linkage sponsor as a component of the project from its early stages as well as the backing given by the Mozal to direct its very large procurement spend to qualifying SMEs. Notably, the programme has also involved the screening and selecting for industrial upgrading of local SMEs where some initial supply capacity existed.

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<sup>50</sup> The description is based on Goode, 2009.

## Lessons for Zambia

The examples described in this report show the existence of a rich core of accumulated international knowledge and experience on how mining can promote employment and other benefits to local communities. These initiatives illustrate the many different ways in which mining companies, governments, and other players have approached the task of working across the mining value chain. Many of these examples carry relevance in the *Zambian context*. A few general points are worth noting (these should be revisited following the publication of the report by Mr. Angel Mondoloka focusing on the *Zambian experiences* in this area).

**Broad objectives instead of mandated requirements.** The discussion of downstream processing and local content shows that legislation is a blunt instrument. The international experience suggests that attempts to influence internal corporate processes concerning their detailed investment and procurement decisions through an absolute or quantitative target often lead to a misallocation of resources, rent seeking and loss of economic opportunity. As noted, the authors have been unable to find examples of good practice comprising mandatory requirements. This is not to say that governments should give up attempting to influence corporate decision making. However, it does imply that a more promising avenue of government intervention may be to incentivise companies to find ways of meeting social objectives through the setting of broad objectives rather than narrow mandated requirements.

**Initiative originates at the company level.** As was noted earlier, the majority of the initiatives identified (in the short period available to complete this assignment) have originated with the mining companies themselves. It is not surprising that the mining companies have done more of the detailed ground-level work in this area, given (1) their day-to-day local knowledge of their mine sites; (2) their often large budgets to actually implement specific ideas; and (3) the strong external pressures they face to show that they are responsible corporate citizens. Governments have an interest in the same set of issues, yet their policies on these issues are often subsumed in the broader agendas for their country as a whole – it is uncommon as was noted earlier for governments to articulate detailed sub-policies (on for example health care or industrialisation) specifically for mining-affected regions. More typically governments have been happy to collaborate on a case-by- case basis with initiatives launched by mining companies or, less frequently by donor agencies and NGOs.

**Success depends on collaboration among key stakeholders.** Although most of the examples were company initiated, their success almost without exception depended on active cooperation between companies and government and usually also with parts of civil society. There are several reasons why there are few examples of initiatives by companies succeeding without such cooperation. Most obviously, companies simply do not have the political legitimacy or credibility to manage social change: especially where they are foreign-owned multinationals who are bound to invite suspicion even when they behave well. Neither do most mining companies welcome such a responsibility. Accordingly, governments, both at the local and national level, are necessary to ensure that any initiatives that are taken are consistent with the interests and wishes of the population and also with national policy priorities. Civil society is needed to provide further assurance that disadvantaged groups and those without political influence are included in the process of designing and implementing programmes.

**Collaboration is key.** Many successful programmes have focused on either removing bottlenecks, for instance, in the form of inadequate but critical infrastructure. This involves efforts to ensure some leveraging from the investments made by mining companies so that their benefits in terms of local economic development are enhanced. The necessary inputs from the formal government structure and from civil society consist of transmitting priorities, possibly adding some complementary investment resources of their own, and mediating between the various interested parties so that generally acceptable solutions are found and nobody is excluded.

**Positive results should be expected of long term social investments.** A large number of successful initiatives are designed to build capacities. Many projects, for instance, the one in Chile's Region II, have demonstrated impressive results even in the short term. Others, such as investments in education, can only be evaluated in the longer term, but from what is known in general about the long term impact of such measures, the results are likely to be positive.


**Broad based economic development is possible.** Many successful initiatives target economic activities outside the immediate supply chain of a mine's commercial activities. Such initiatives can generate benefits from the increase in employment, diversification and general economic wellbeing that usually accompanies large mining projects. The presence of a core of workers with somewhat higher incomes than previously provides a ready stock of consumer demand, which is multiplied as mine workers spend and give incomes to others. The fact that not everybody qualifies for jobs in mining usually creates a reserve of labour in mining areas. Improved infrastructure means that conditions for obtaining inputs and transporting products outside the community can become more favourable. Accordingly, broader based economic development is possible, provided that all interested parties are willing to support collaborative solutions.

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The Multinational Enterprises and Enterprise Engagement Unit (MULTI) conducts studies to support the application of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration). The studies serve to inform tripartite plus dialogues on decent work priorities – involving government, social partners, multinational enterprises, and other relevant actors - in order to foster a partnership approach among all actors that supports national development and decent work priorities and encourages sustainable and responsible business practices.

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