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LOCAL CONTENT POLICIES IN THE MINING SECTOR:

Stimulating direct local employment



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Local Content Policies: Stimulating direct local employment

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EXECUTIVE SUMMARY

When a mining company arrives in an area, the promise of local employment is central to public debate in least-developed, developing and developed countries alike.

For local communities, decent mining company jobs that are safe, stable and fairly compensated, allow employees and their families to plan ahead to improve livelihoods and financial security. For host governments, local employment in the mining sector supports national priorities and political promises for job creation, human capital development and inclusive economic growth. For mining companies, employing local people drives cost efficiencies and helps in the ongoing process of gaining and maintaining a social licence to operate.

Recognizing these opportunities for social and economic development, governments use a wide range of policies and strategies to promote direct local employment in the mining sector. This paper reviews these policies and strategies as part of a broader set of inputs on enhancing local content in the mining sector prepared in collaboration with the International Institute for Sustainable Development (IISD) for the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF).

GOVERNMENT OBJECTIVES FOR LOCAL EMPLOYMENT POLICIES

Government policies and strategies promoting local employment in the mining sector are generally seeking to achieve one or more of the following objectives:

- i. Respond to national priorities and political pressures for job creation from constituents
- ii. Gain and maintain a “social licence to operate” for mining projects
- iii. Grow and develop the skills of the national labour force
- iv. Support efforts to progress gender equality and social inclusion
- v. Minimize project costs (through localizing labour) in order to maximize company profits and fiscal revenues.

DEVELOPING A LOCAL EMPLOYMENT POLICY

There is no “one-size-fits-all” approach to promoting direct local employment in the mining sector. Policy settings and strategies must be context-specific, reflecting the particular needs and capacities of a host country at a given stage of development.

Accordingly, governments wishing to promote local employment in the mining sector should begin by assessing the role of the mining sector in national development strategies (Step 1, Figure ES1). This assessment should then be followed by a realistic evaluation of the capacity of the domestic labour force to meet the human capital requirements of the mining industry (Step 2). With labour supply and demand established, local content goals for employment in the mining sector can then be developed (Step 3), together with strategies to support these goals (Step 4). Finally, monitoring of local content employment targets in the mining sector is crucial for ongoing development of the domestic labour supply (Step 5).



FIGURE ES1. KEY STAGES FOR DEVELOPING A LOCAL EMPLOYMENT POLICY FOR THE MINING SECTOR



There are two main approaches used by host governments to enhance local employment (see Figure ES2), namely:

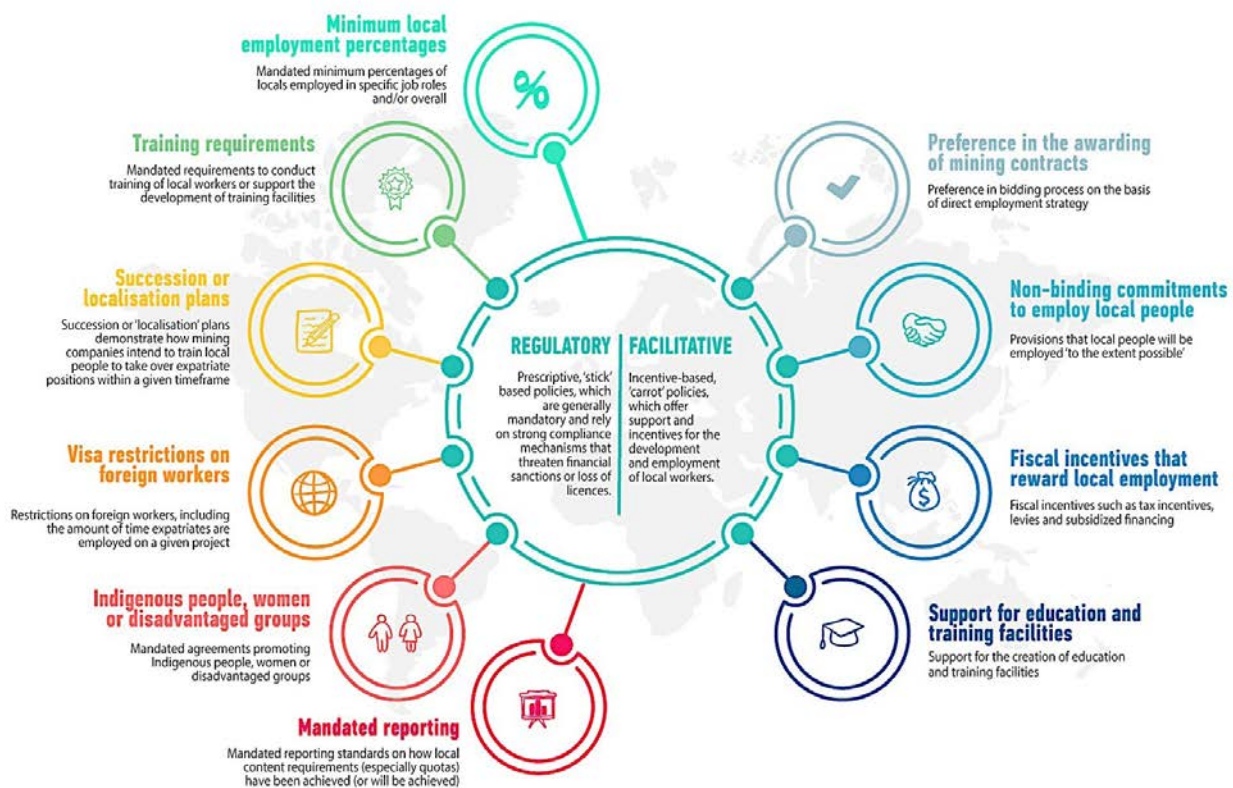
- (i) Regulatory approaches, which typically result in mandatory, “stick”-based policies that rely on strong compliance mechanisms with the prospect of financial sanctions or loss of licences.
- (ii) Facilitative approaches, which typically result in incentive-based, “carrot” policies that offer support and incentives for the development and employment of local workers.

Governments occupy a unique position in being able to influence both the supply and demand sides of local employment in the mining sector. As a regulator, a government can use the authority of the state to compel a company to comply with local content requirements. As a facilitator, it can also implement measures to prepare the local labour force to fulfill these requirements.

Most mineral-rich countries adopt a combination of both regulatory and facilitative approaches, with a gradual transition from regulatory to facilitative strategies as a country builds capacity and global competitiveness.



FIGURE ES2. REGULATORY AND FACILITATIVE APPROACHES TO LOCAL EMPLOYMENT IN THE MINING SECTOR



GUIDING PRINCIPLES FOR PROMOTING LOCAL EMPLOYMENT IN THE MINING SECTOR

The following guiding principles will help governments and policy-makers create inclusive and well-informed local employment policies that are appropriate to their domestic context and stage of development:

- i. Situate local employment policies within the national development context.
- ii. Communicate with the private sector and industry specialists.
- iii. Create an employment-ready workforce so that supply matches demand.
- iv. Integrate local content policies into existing national policy frameworks.
- v. Make targets and expectations consistent and transparent.
- vi. Collect data to inform ongoing development, including on evolving technological trends and innovations in mining investment (e.g., trends in automation technologies).
- vii. Establish strong measurement and reporting processes.
- viii. Support the progression of gender equity goals.
- ix. Create opportunities for the direct participation of Indigenous Peoples.
- x. Facilitate economic diversification.
- xi. Revisit policy choices amid a developing domestic environment and changing nature of mining investments.



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1.0 INTRODUCTION: DECENT WORK IN THE MINING SECTOR

1.1 DECENT WORK SUPPORTS LIVELIHOODS AND FINANCIAL SECURITY

Increasing productive employment and decent work is an important component of major development frameworks, including the Sustainable Development Goals (SDGs) (UN General Assembly, 2015),¹ the International Labour Organization’s (ILO) Decent Work Agenda (ILO, 2017),² and the 2017 European Consensus on Development (EU Council of Ministers, 2017b).³ Work that is safe, stable and fairly compensated allows workers to extend the benefits of a steady income and new skillsets to their families and communities. This is why creating sustainable jobs for the local population is seen as “investing in [a state’s] own future” (Barsukov, VP Supply Chain Management at Cameco Corporation, cited in Darychuk, & Travers, 2016).

The ILO reports that some 780 million women and men around the world are working but not earning enough to lift themselves and their families out of poverty (ILO, 2017a). A sustainable path out of poverty relies not just on gaining work, but securing productive work that has long-term potential: that allows the worker to plan ahead, to establish a degree of financial security and social protection, and to settle in a location long enough to feel a sense of belonging and purpose. Ideally, employment should enhance a worker’s sense of self-worth and provide opportunities for personal growth and satisfaction.

By contrast, exploitative working conditions can have deleterious impacts on workers and society as a whole. For instance, unsafe work practices can negatively impact the psychological and physical

¹ Goal 8 aims to achieve “full and productive employment, and decent work, for all women and men by 2030.”

² The International Labour Organisation’s “Decent Work Agenda” is a broad economic and social strategy that aims to guide workplaces around the world in establishing inclusive, fair and dignity-enhancing cultures. The ILO has also developed a Toolkit for Mainstreaming Employment and Decent Work (ILO, 2008), which assists governments, agencies and partners in integrating decent work outcomes into their policies and programs for a consistent, coherent development approach. Gender equality is a crosscutting initiative.

³ Adopted by EU Council of Ministers on May 19, 2017. The European Consensus on Development sets out the principles that will guide EU members in their relationships with developing countries and their efforts to achieve the Sustainable Development Goals. Article 2.3 (47) pinpoints decent work as essential to inclusive prosperity: “Creating decent jobs, particularly for women and youth, is essential for inclusive and sustainable growth. Shared prosperity and growth are key contributors to human welfare and dignity. Inclusive sustainable growth builds long-term resilience in partner countries, by creating opportunities for vulnerable population groups and those most at risk, to participate in, and benefit from, wealth and the creation of decent jobs.”



health of workers. These impacts can, in turn, place increased financial pressure on the state through greater demand for healthcare and social services. Exploitative working conditions, such as wages that are below minimum wages, can also keep workers and their families in financial poverty. Governments are more likely to create the conditions for sustainable and inclusive growth if they take steps to ensure that employment conditions align with human rights and the principles of a fair economy.

UN Sustainable Development Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

— United Nations, Department of Economic and Social Affairs

1.2 THE PROMISE OF LOCAL EMPLOYMENT IN THE MINING SECTOR

Although the process of mineral extraction is capital-intensive, the mining sector can create opportunities for decent work in developing and developed countries alike.

The business model of the mining sector disrupts ecologies and peoples, particularly in the immediate-impact areas of extraction. Yet the potential social and economic benefits of mineral extraction continue to appeal to both host governments and communities. As a result, the “decision to extract” is often vexed and hotly contested, involving profound trade-offs across capitals, actors, scales and time horizons. Among these trade-offs, the promise of local employment is almost universally held up by politicians, mining companies and communities as a major reason to approve mining projects.

For local communities, decent mining company employment that is safe, stable and fairly compensated allows employees and their families to plan ahead to improve livelihoods and financial security. For host governments, local employment in the mining sector supports economic and political priorities for job creation, human capital development and inclusive economic growth. For mining companies, employing local people drives cost efficiencies and helps in the ongoing process of gaining and maintaining a social licence to operate.

Despite the prominent role that local employment plays in the decision to extract, the total numbers of direct and indirect jobs that are created from mining projects can be relatively small compared to the capital investments and the fiscal revenues that are generated. As shown in Figure 1, mining projects typically follow an economic pattern where mining’s share of direct foreign investment and exports in the host economy is much greater than its share of the economy’s government revenue, national income or employment. In comparison to other financial flows, therefore, the contribution of the mining sector to direct employment is relatively small.



FIGURE 1. MINING’S CONTRIBUTION TO EMPLOYMENT



Source: International Council on Mining and Metals (ICMM), 2016.

While there is a lack of data on global mining sector employment, current estimates are that the sector contributes around 1–2 per cent of total direct employment in a country (ICMM, 2016). When indirect (e.g., contract) and induced employment (i.e., resulting from spending by mining employees) is included, the contribution can jump to 3–15 per cent. Moreover, direct, indirect and induced employment may offer a qualitatively different development dividend than fiscal revenues, which do not automatically articulate into broad-based, sustainable forms of development. The literature on the “resource curse” suggests that extractive sectors often exist in relative isolation from the rest of the economy, crowding out other sectors that may be better suited for pro-poor growth, such as manufacturing or agriculture (see, for example, Melia, 2016). Local employment, on the other hand, represents a tangible opportunity for host governments and mining companies to enhance the development impact of mineral extraction, particularly in the immediate impact areas of the project.

BOX 1. DIRECT, INDIRECT AND INDUCED EMPLOYMENT

Direct employment: Individuals employed by the company that owns and operates the extraction site. This sometimes includes contractors’ staff if their regular workplace is on-site. An example would be an engineer employed on a mine site.

Indirect employment: Individuals employed by companies that supply goods or services to the mining company or that use its services, that is, employment through the supply chain. It can also include employment generated through social investment activities such as local business development. An example would be a mechanic supplying services to a mine as a contractor.

Induced employment: Additional employment generated as a result of the spending activities of those employed directly or indirectly by the industry. This includes things such as employees spending their wages in shops or on accommodation or transport. An example would include someone who has opened a shop in a mining region to sell groceries.

Source: Cordes et al (2016).



1.3 ABOUT THIS PAPER: LOCAL CONTENT POLICIES FOR DIRECT EMPLOYMENT

Under certain conditions, local content policies can play a pivotal role in setting the structural framework for in-country value retention in the mining sector. Most resource-rich states have local content provisions as part of their resource governance framework, and most local content policies contain measures to promote local employment. Local content policies are particularly attractive for developing and least-developed states, who, by entering the global extractives market, are seeking to align extractive activity with national priorities to drive broad-based socioeconomic transformation (Natural Resource Governance Institute [NRGI], 2015).

This paper offers an overview of local content policies for direct local employment in the mining sector. It considers the objectives that drive governments to introduce policies for local employment in the sector (Section 3); provides an overview of a process that can be used to develop policies to promote direct employment (Section 4); outlines regulatory and facilitative approaches to regulating supply and demand for domestic labour in the mining sector (Section 5); and presents some general principles to help governments and policy-makers create inclusive and well-informed local employment policies (Section 6). Six case studies, published as stand-alone briefs on IGF's website, offer insights into the implementation of policies to promote local employment in the mining sectors in [Chile](#), [Canada](#), [South Africa](#), [Ghana](#), [Australia](#) and [Papua New Guinea](#). Lessons from those case studies are summarized throughout the paper.



2.0 OBJECTIVES OF LOCAL CONTENT POLICIES FOR DIRECT EMPLOYMENT

When governments introduce local content policies or other measures to promote direct local employment in the mining sector, they are generally seeking to achieve one or more of the following objectives.

2.1 RESPOND TO POLITICAL PRESSURE FOR JOB CREATION FROM CONSTITUENTS

First, local employment opportunities are often the primary concern of communities near mining projects— in both developing and developed countries (World Bank, 2014). One objective of local content policies, therefore, is political: to *respond to political pressures from constituents* to provide clear government support for mining companies to hire local employees.

For host governments, local employment in the mining sector supports broader political priorities for job creation, human capital development and inclusive economic growth.

2.2 GAIN AND MAINTAIN A “SOCIAL LICENCE TO OPERATE” FOR A MINING PROJECT

Second, and related to these political considerations, is that direct local employment helps mining companies *gain and maintain* a “social licence to operate.” Maintaining a social licence to operate is not only important for a mining company: the longer a mining project remains in operation and is supported by the local community, the longer host governments will receive revenues incurred through resource rents and taxes.

A mining company that gives preference to a host country’s workforce increases local support for the project (Ramdoo, 2016). Most corporate social responsibility (CSR) frameworks include provisions for local employment and training; local communities are more likely to engage with mining companies and support the goals of the project if they can share in some of the employment benefits. The relationship between local employment and social licence to operate is not limited to developing countries, or to mining projects with Indigenous communities who have land rights or live in close proximity to the operation. There are also many examples of local employment being a major driver of community support for mining projects in developed countries.⁴

⁴ One example from Australia is Adani’s Carmichael mine in the Galilee Basin, where local employment is a major focus of discussions among politicians and local communities, and in the media.

2.3 INCREASE TAX REVENUES

Third, an increase in the number of people employed in the domestic economy *increases direct and indirect tax revenues* for national governments. This is a particularly incentivizing force for host governments to promote direct employment of locals in the mining sector, especially since expatriate workers often do not pay national income taxes (although they have relatively high purchasing power and therefore tend to contribute to indirect taxes through the consumption of goods and services).

2.4 DEVELOPING THE NATIONAL LABOUR FORCE

Fourth, local employment in the mining sector is a way for governments to develop competencies, address skills shortages and facilitate knowledge transfer within their **national labour force**. Particularly for developing or nascent producing states, building the capacity of the national labour force represents an opportunity to increase the productivity as well as the competitiveness of the mining sector.

A trained mining workforce can also help reduce dependence on foreign aid. For instance, a skilled mining workforce can contribute to the export of labour to other countries, which in turn can result in remittances from diaspora mining populations.

Provided that the competencies developed by those working in the mining industry are transferable, skills developed in and for the mining sector can be passed on to other industries, such as the construction and manufacturing sectors. This is a vital element of a national strategy to diversify economic activities away from natural resource extraction or to prepare for post-mining transition. Workforce competency profiles, such as those used in [Chile's Mining Skills Council](#), can serve as a foundation for long-term strategic forecasting, allowing governments to assess skill shortages and align labour force supply with industry demand. This kind of collaborative workforce planning between government and the mining industry is particularly important in light of the transition toward automated and disruptive technologies, and the likelihood of labour redundancy due to the requirements of more sophisticated skill sets.

Continued innovation and human resources development are key to reducing the dependence on the initial factor endowment (natural resources) and to building and sustaining a locally embedded, competitive and diversified economy.

— Africa Mining Vision, African Union, p. 8

2.5 SUPPORT EFFORTS TO PROGRESS GENDER EQUALITY AND SOCIAL INCLUSION

Fifth, through local content policies and measures for direct employment, governments can also support efforts to progress *gender equality and social inclusion*.

The mining industry affects women differently to men. Often, men have better access to the benefits of extractive projects, including employment, business contracts and compensation payments, while the negative impacts, such as environmental degradation, social disruption and gender-based violence tend to fall most heavily on women. In many resource-rich countries, women also tend to be left out of decision making regarding community benefits, and do not have access to the same levels of information as men do about resource projects.

Local content policies and strategies for direct employment can be used to support and improve the quality of women's employment in the mining industry. For instance, initiatives such as the "Women



in Hard Hats” program in Queensland, Australia, have focused on creating direct employment pathways for women (Williams, 2011). Investing in programs that promote women’s employment in the mining sector can foster innovation and raise retention and productivity rates (International Finance Corporation [IFC], 2013). Women with increased earning potential also tend to diversify benefits throughout their communities, spending wages derived from work in extractives projects on education, health and family well-being, which in turn contribute to broader human development (World Bank, 2015).

Similarly, local content policies and strategies for direct employment can also be used to promote workforce participation among groups who do not have access to the same opportunities to participate in mining sector employment as other groups in a society on account of historical discrimination or social constraints. For instance, programs such as JETA Voisey’s Bay in [Canada](#) have focused on creating direct employment pathways for Indigenous Peoples. [South Africa](#)’s Broad-Based Socio-Economic Empowerment Charter is another example of a policy setting that promote workforce participation of specific social groups in a country, in this case historically disadvantaged peoples.

2.6 MAXIMIZING FISCAL REVENUES BY MINIMIZING MINING PROJECT COSTS

Finally, direct employment in the mining sector can reduce the operational costs of mining companies, which can contribute positively to company profits and fiscal revenues. Some mining projects utilize significant levels of expatriate and “fly-in-fly-out” (FIFO) employees due to the geographically remote location of their sites. Another reason for the high levels of expatriate and FIFO employees in the mining sector is that host countries cannot always meet all of the skilled labour requirements for mining projects.

By “training up” the domestic workforce to “nationalize” or “localize” employment positions, mining companies can rationalize the costs associated with transporting and accommodating expatriate and FIFO employees. Cost efficiencies can also be realized through the rationalization of wages: In developing countries in particular, the wages of local employees from the domestic workforce are often cheaper than maintaining an international labour force (ILO, 2012).

Recruitment of workers who live locally may also improve worker retention, which contributes to the sustainability of mining projects. For host governments, reducing costs for mining companies has an indirect benefit of maximizing company profits, which in turn can strengthen fiscal revenues to the state through company tax and other fees and levies.



3.0 DEVELOPING A LOCAL EMPLOYMENT STRATEGY AND ACTION PLAN

There is no one-size-fits-all set of local content solutions for direct employment. Policy settings and strategies to promote local employment in the mining sector must be context-specific, reflecting the particular needs and capacities of a host country at a given stage of development.

Accordingly, as shown in Figure 2, governments wishing to promote local employment in the mining sector should:

- (i) Assess the role of the mining sector in national development strategies (Step 1). When the scale of the mining sector is economically and socially significant to an economy and a society, investment in the promotion of local employment should play a central role in host country value retention.
- (ii) This assessment should be followed by an evaluation of the human capital needs of the mining industry, now and in the future, and a realistic assessment of the capacity of the domestic labour force to meet those needs (Step 2).
- (iii) Once labour supply and demand are established, local content goals for employment in the mining sector can be developed in consultation with stakeholders (Step 3).⁵
- (iv) With realistic targets in place, a mix of regulatory and facilitative policies and strategies that best promote direct employment within a given national context can be formulated (Step 4).
- (v) Finally, monitoring of local employment plans and targets in the mining sector is crucial for ongoing development of the domestic labour supply (Step 5).

⁵ Step 3 and 4 should be carried out in concert so that goals inform strategies and *vice versa*.



FIGURE 2. KEY STAGES FOR DEVELOPING A LOCAL EMPLOYMENT POLICY FOR THE MINING SECTOR



3.1 STEP 1: ASSESSING THE ROLE OF MINING IN NATIONAL DEVELOPMENT PLANS

When developing a local content policy for direct employment in the mining sector, the first step is to understand the role that the sector plays in national development plans. In nascent producing states in particular, it is important for host governments to assess their domestic landscape to understand the contribution that the mining sector can make to fiscal revenues and broader socioeconomic development. The assessment needs to consider various types of production linkages including the extent of current sectoral linkages that exist (or the potential that can be unlocked) between the mining sector and other sectors, such as the manufacturing and construction sectors.

In some cases, the mining sector may make only a relatively minor contribution to socioeconomic development. This may be the case, for instance, if a country does not have significant mineral reserves, or is nearing the end of its economic reserves, or if national development priorities give preference to other sectors such as tourism or agriculture. In these cases, although local employment in the mining sector may still be a priority, the investment in enabling policy and infrastructure from the state may be minimal.

In other cases, where the mining sector is positioned to be a major driver of fiscal revenue and economic opportunities over the medium to long term, a greater investment in the capability of the local workforce is likely warranted.

In making this assessment, governments also need to be aware of their own domestic capabilities, social and economic priorities and development goals. For instance, the mining sector may be operating in locations that are close to Indigenous communities, rural populations, or disadvantaged or marginalized groups. In these cases, a greater investment in policies and strategies to facilitate



local employment in the mining sector may be a way of addressing broader national goals for inclusive development.

3.2 STEP 2: EVALUATING LABOUR FORCE SUPPLY AND INDUSTRY DEMAND

With an understanding of the role that the mining sector plays, or will play, in local economic development, the next step is to assess the industry’s demand for labour and compare this with the ability of the local labour force to supply requirements (see Figure 3 for factors that affect supply and demand).

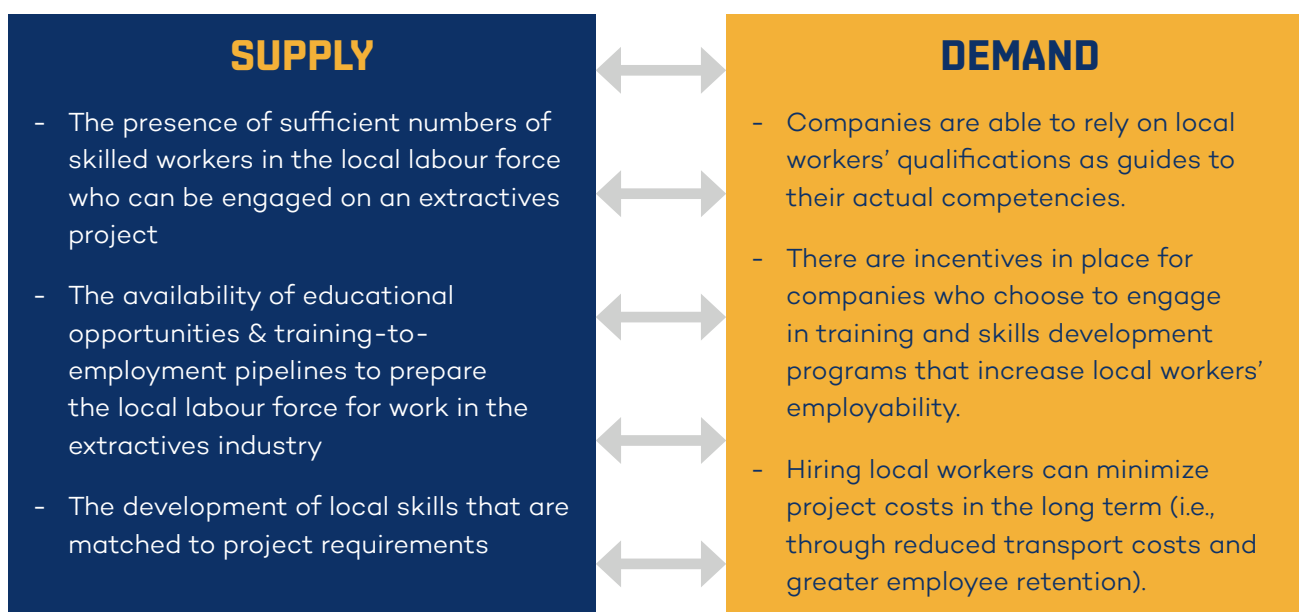
This is a dynamic process, which includes the ability to assess the needs—in quantity and by level of competencies—for the various skills that are required by the mining industry. Any evaluation of labour force supply and demand should include forecasts of the future needs of the industry, including likely changes in workforce profiles that will be brought about by technological changes and industry trends.

For most countries, understanding and forecasting the labour demand in the mining industry is a gradual process, informed by ongoing dialogue and collaboration with mining industry stakeholders. Matching supply with demand involves working with the education and training sector in order to determine present labour force capacity and create targeted education and training programs that fill in gaps to align with sector and project requirements (see Spotlight 2).

Unrealistic expectations about the skills and competencies of the domestic labour force can result in a mismatch between the local supply of human capital and the requirements of the mining sector. This is a risk for highly technical and specialized skills such as metallurgists and mining engineers, where both oversupply and undersupply from domestic labour forces are common.

Balancing labour force supply with industry demands also involves managing expectations about the levels of human capital development that can be achieved in the short, medium and long terms. To this end, agencies established to coordinate the planning and development of domestic labour help provide independent verification of sector-wide supply and demand as is the case in [Chile](#).

FIGURE 3. FACTORS AFFECTING SUPPLY AND DEMAND FOR DOMESTIC LABOUR IN THE MINING SECTOR





3.3 STEP 3: SETTING LOCAL CONTENT GOALS AND KEY PARAMETERS FOR “LOCAL” EMPLOYMENT

A clear understanding of domestic labour supply and industry demand provides the basis for the development of local content goals for direct employment in the mining sector.

An important part of setting targets for local employment involves defining the clear parameters of what “local” actually means. Nigeria, Ghana, Angola and Indonesia are all examples of countries where governments describe “local” as pertaining to citizens resident in the country of extraction. Some have argued that this centralist approach by government is too broad, and that it would be more appropriate to take a bottom-up approach that gives special recognition to those who live in areas immediately surrounding extractives sites (otherwise called “subnational communities” [Esteves, Coyne, & Moreno, 2013] or “community content” [Marcel et al., 2016]). For example, Section 136(d) of the Revised Rules and Regulations of the Philippines Mining Act of 1995 stipulates that priority should be given to Filipinos living in “local” or neighbouring communities or the province where a mine is located.⁶ A similar approach is in place in [Papua New Guinea](#). In [Australia](#), [Canada](#) and [South Africa](#), local content is often intended to address the needs of Indigenous or historically disadvantaged communities; “local,” in such provisions, refers not so much to location-based parameters as to select ethnic or social subgroups of the national population.

Setting definitional parameters for “local” is important because this determines how local content outcomes will be measured and monitored by stakeholders.

It is worth noting that in most cases, the goal of a local content framework should not be to achieve 100 per cent local employment across all roles in a mining project. Building or retaining domestic industry competitiveness often requires participation, at least to some extent, in the international exchange of human capital. Furthermore, for a range of reasons, it may not be economically feasible to develop highly specialized skills locally for every task. For instance, demand for some skills may be short-lived, relatively small or irregular, which may not be worth the cost to invest in the development of such skills locally; or there may be a lack of viable opportunities for these skills to transfer into the domestic market post-extraction (Roe, et al., 2016).

Governments need to be careful when making the decision to assign numerical targets for local employment. Setting unrealistic targets can stifle foreign investment and encourage shortcuts and superficial policy commitments (Esteves et al., 2013). Instead, governments need to create clear, achievable targets that are accepted by stakeholders. The ultimate goal should be to maximize local employment for optimal human development and economic growth, not to constrain the competitiveness of industry.

3.4 STEP 4: POLICIES AND STRATEGIES TO PROMOTE LOCAL EMPLOYMENT

The next step in developing a policy framework for local employment is to put in place strategies that will best promote direct employment within a given national context.

Generally speaking, there are two main approaches used by host governments to enhance local employment:

- (i) Regulatory approaches, which typically result in mandatory, “stick”-based policies that rely on strong compliance mechanisms with the prospect of financial sanctions or loss of licences.

⁶ Sec. 136(d) of the Revised Implementing Rules and Regulations of R.A. 7942, otherwise known as the Philippine Mining Act of 1995 (“AO 2010”).



- (ii) Facilitative approaches, which typically result in incentive-based, “carrot” policies that offer support and incentives for the development and employment of local workers.

Governments occupy a unique position in being able to influence both the supply and demand sides of local employment in the mining sector. As a regulator, a government can use the authority of the state to compel a company to comply with local content requirements. As a facilitator, it can also implement measures to prepare the local labour force to fulfill these requirements.

Most mineral-rich countries adopt a combination of both regulatory and facilitative approaches, with a gradual transition from regulatory to facilitative strategies as a country builds capacity and global competitiveness.

Figure 4 provides an overview of the policy options for promoting local employment in the mining sector (also see Section 5). Table 4.1 contains the regulatory and facilitative strategies discussed in this paper mapped against their ability to impact the supply and demand of domestic labour in the mining sector.

Governments need to assess which types of local content requirements are likely to work in their national settings to improve direct employment within reasonable time periods. Regulatory requirements (e.g., quotas, restrictions on the number of expatriates that can be employed) are often appealing because they offer the clearest way of enforcing immediate outcomes and mitigating the risk of non-compliance. However, their effectiveness is dependent on a number of factors related to domestic human capital supply. For instance, lack of technical and specialist skills in the local labour force can incur the need for significant capital outlays for training programs, which can in turn slow the onset or hinder the productivity of mining projects.

Facilitative policies, on the other hand, can encourage local content and shared-value initiatives (e.g., training programs) that benefit both mining companies and local communities, but their success relies on genuine commitment to local employment from all stakeholders. The strengths and weaknesses of both regulatory and facilitative strategies are provided in Tables 4.1, 4.2, and 4.3 below.

If a state has recently discovered mineral reserves or is in the early stages of feasibility and project assessment, some time is available to prepare the domestic labour force and design commensurate regulatory requirements. If, however, mining projects are already under construction or are in the production stage, then implementing strict regulations for direct employment can bottleneck operations—especially if there is an absence of skilled domestic workers and existing training institutions. In these cases, it may make sense to phase in local content requirements as requisite local skills are brought online.

FIGURE 4. OVERVIEW OF POLICY OPTIONS FOR PROMOTING LOCAL EMPLOYMENT IN THE MINING SECTOR

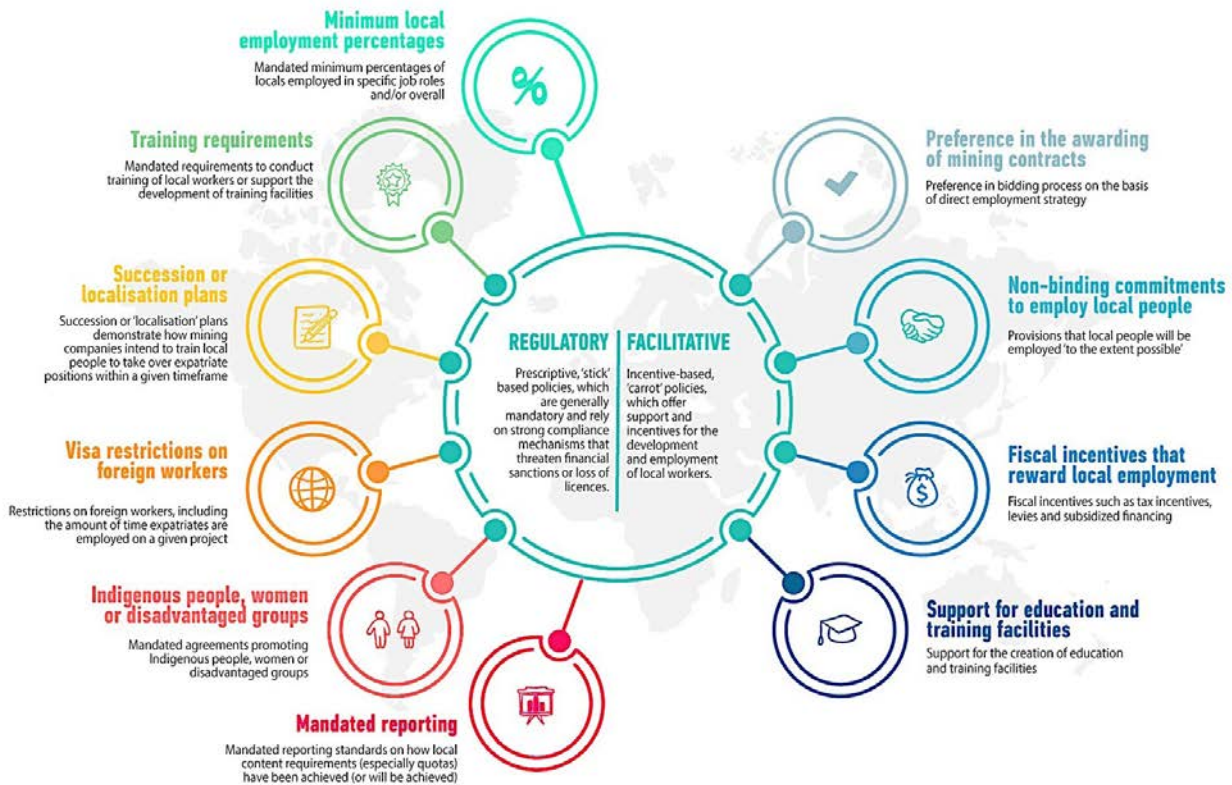


TABLE 1. REGULATORY AND FACILITATIVE STRATEGIES BY SUPPLY AND DEMAND

	Supply	Demand	
Regulatory approaches	Mandated requirements to conduct training of local workers or support the development of training facilities (Sec. 4.1.2)	Mandated minimum percentages of local people employed in specific job roles and/or overall (Sec. 4.1.1)	
	Mandated succession/localization plans (Sec. 4.1.3) [cross-cutting]	Visa restrictions on foreign workers (Sec. 4.1.4)	
	Mandated agreements promoting Indigenous People, women or disadvantaged groups (4.1.5) [cross-cutting]	Mandated succession / localization plans (Sec. 4.1.3) [cross-cutting]	Mandated succession / localization plans (Sec. 4.1.3) [cross-cutting]
		Mandated agreements promoting Indigenous People, women or disadvantaged groups (Sec. 4.1.5) [cross-cutting]	Mandated agreements promoting Indigenous People, women or disadvantaged groups (Sec. 4.1.5) [cross-cutting]
Facilitative approaches	Provision of financial resources or support for the creation of training facilities and/or streamlined training-to-employment/skills development programs (Sec. 4.2.4)	Mandated reporting standards on how local content requirements (especially quotas) have been achieved (or will be achieved) (Sec. 4.1.6)	
		Preference in bidding process on the basis of direct employment strategy (Sec. 4.2.1)	
		Provisions that local people will be used "to the extent feasible" (Sec. 4.2.2)	
		Fiscal incentives, e.g., tax incentives, levies, subsidized financing (Sec. 4.2.3)	

**TABLE 2. STRENGTHS AND WEAKNESSES OF REGULATORY STRATEGIES**

Regulatory Local Employment Policies		
	Of concern to government	Of concern to industry stakeholders (e.g., mining companies, foreign investors)
Strengths	Legislative “guarantee” with compliance mechanisms.	Clear targets for compliance
	Clear targets can inform coordination of policies, evaluation and data collection.	Predictability of framework helps to mitigate project risk
	Clear, non-negotiable targets can be particularly useful for developing or least-developed states that lack coordination between sectors and firm accountability measures.	Levelled playing field with consistency across projects and/or regions
Challenges / Weaknesses	Heavy regulation can pose timing issues, where a lack of existing resources or infrastructure holds everything up.	Lack of flexibility or sensitivity to contextual variables
	Heavy regulation can stifle foreign investment and discourage firm involvement.	Usually requires targeted training commitments with significant capital outlays
	Increased vulnerability to (or impact of) high-level corruption.	Aligning practice with stringent regulation can involve making concessions on how companies ideally do business and impact on competitiveness
	Building governance capacity critical to ensuring regulatory authorities manage sector transparently, both in a technical and administrative capacity	Can encourage shortcuts or false claims of compliance at different company levels
	Monitoring essential to ensure compliance and general effectiveness of legislative stipulations.	

TABLE 3. STRENGTHS AND WEAKNESSES OF FACILITATIVE STRATEGIES

Incentive-Based Local Employment Policies		
	Of concern to government	Of concern to industry stakeholders (e.g., mining companies, foreign investors)
Strengths	Can encourage competitiveness for best practice	Awards on basis of improving performance rather than meeting a minimum threshold
	Can foster innovation and problem solving	Often catalyzes multidisciplinary collaboration and industry coordination
	Monitoring and enforcement mechanisms can be less prescriptive	Flexible – specifics of approach are adaptable to contextual variables
Challenges / Weaknesses	Uncertainty about whether incentives translate into tangible employment benefits	Vague determinants of success can foster confusion or short cuts
	Difficult to measure impact and establish causation (although same could be argued for regulatory approaches, perhaps to a lesser degree)	Uncertainty around potential “room to move,” i.e., whether government concessions are possible
	Lack of accountability measures; vulnerable to concessions	
	Can be less useful for (particularly developing and least-developed) states that require the clarity and specificity of a regulatory approach	



3.5 STEP 5: MONITORING, EVALUATION & FORECASTING

Finally, monitoring and evaluation of the supply and demand of local employment in the mining sector is critical to ensuring the success of any policy framework.

Effective monitoring and evaluation helps governments keep track of companies' compliance, as well as ensuring that policy interventions are working effectively to achieve their intended objectives. If, in spite of companies' compliance, national direct employment targets are not being met, monitoring and evaluation processes can help to uncover areas in the regulatory or policy framework that require improvement and modification. Ongoing sector-level forecasting can also help identify skills shortages within the local workforce.

Reporting standards for local employment should include both quantitative and qualitative measures. Quantitative measures may include companies' performance meeting localization quotas, localization targets and key training and development outcomes. Qualitative measures may include case studies or feedback from employees or local communities.

Reporting on direct employment should also ideally take into account the quality of the employment, i.e., whether it is decent work that upholds human rights standards and contributes to the prosperity of local communities. In alignment with the UN Sustainable Development Goals (UN General Assembly, 2015) and ICMM's 10 Principles framework (ICMM, 2013),⁷ the "value" of direct employment depends on the nature of the employment targets achieved (e.g., the types of jobs undertaken by employees, remuneration frameworks, career progression, and whether employment is stable or casual/temporary). Where possible, therefore, reporting on local employment should include compliance with host country and global labour standards and development frameworks.⁸

In designing monitoring and reporting frameworks, policy-makers should take care to make sure monitoring and assessment frameworks do not exceed bureaucratic competencies or incur unnecessary administrative costs.

⁷ Principle 2: Integrate sustainable development in corporate strategy and decision-making processes; Principle 3 – Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities; Principle 9 – Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.

⁸ For instance, relevant employment goals in the Sustainable Development Goals (SDGs), the International Labour Organization's (ILO) Decent Work Agenda, and the 2017 European Consensus on Development.



4.0 POLICIES AND STRATEGIES FOR IMPLEMENTING LOCAL CONTENT

4.1 REGULATORY (PRESCRIPTIVE) POLICIES

4.1.1 MANDATED MINIMUM PERCENTAGES OF LOCAL PEOPLE EMPLOYED IN SPECIFIC JOB ROLES AND/OR OVERALL

STRATEGY OVERVIEW

Setting local employment quotas is one of the most commonly used policy settings. Mandated minimum percentages can apply to particular roles, or to the mining project as a whole. For administrative or labour roles, local employment policies tend to specify 100 per cent local workers, such as in Nigeria and [Ghana](#); for more technical, specialist or management roles, it is common for local employment policies to prescribe percentages, with restrictions on how many foreign nationals can be employed within a particular project. For example, Kazakhstan has different minimum targets for Kazakh nationals depending on the level of expertise: in management positions, the minimum requirement is 70 per cent; in technical and specialist roles, this is increased to 90 per cent. There is also an overall 90 per cent minimum target of national workers by headcount.⁹

Quotas are especially prevalent in frameworks developed by nascent producing or developing states. It is worth noting, however, that quotas only work well when there are sufficient numbers of skilled workers within the national labour force to satisfy the requirements of both the government and the project as a whole. If, on the other hand, training is needed to “make up the shortfall,” then imposing quotas from the outset of a project can create suboptimal outcomes (Tordo, et al., 2013) and even run the risk of being seen as anti-investment (Nwaokoro, 2011). To address this risk, [Ghana](#) has adopted the strategy of imposing quotas that gradually increase over a 10-year period. This gives companies time to develop support and succession plans to accommodate the introduction of local workers (Ministry of Energy, 2010, Article 5.4).

Minimum quotas for local employment are sometimes enforced through restrictions on foreign labour (see Section 4.1.4).

⁹ Decree 45/2012 on Expatriate Workforce Quota and Work Permit Use.

**TABLE 4. EXAMPLES OF MINIMUM PERCENTAGE QUOTAS**

Angola (petroleum)	Decree No. 5/95	Oil companies required to hire at least 70 per cent Angolan nationals. Authorization to hire foreign nationals granted only when a firm can show that the requisite number of qualified Angolan nations cannot be recruited.
Ghana (mining). For a more detailed overview of Ghana's local content framework, see Case Study #4).	Article 5.4 of the 2010 Policy Framework for Local Content and Local Participation	Prescribed minimum levels of employment of Ghanaians (which increase over life cycle of project). Unskilled labour and clericals only for nations. Prescribed percentages for maximum number of expatriate staff to total number of senior staff permitted.
Nigeria (mining)	Local Content Act 2010	Companies required to hire only Nigerians in junior and intermediate positions. For each operation, a foreign expatriate may maintain a maximum number of 5 per cent of management positions.
Kazakhstan (petroleum)	Decree 45/12	95 per cent minimum requirements for employment of nationals.
South Africa (mining)	Article 2.3 of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry 2017 ("Mining Charter")	Compulsory requirement to employ at least 40 per cent local labour at all levels (and at least 10 per cent women in mining activities). Must achieve minimum percentage of historically disadvantaged (HDSA) representation at management levels.

TABLE 5. STRENGTHS AND WEAKNESSES OF MINIMUM PERCENTAGE QUOTAS**Strengths of policy (categorized by level of immediate impact)***

Community	Government	Company
<ul style="list-style-type: none"> Guaranteed participation of local people in extractives project. Catalyst for targeted skills development. Less frustration over expatriates taking positions if minimum quotas or requirements are fulfilled. 	<ul style="list-style-type: none"> Clear targets for compliance from project outset provide evaluation parameters (quotas are relatively easy to monitor). Quotas help manage stakeholder expectations. 	<ul style="list-style-type: none"> Consistency across subnational regions and/or projects. Levels the playing field for industry (if implemented consistently across projects). Predictability of legislative provisions helps to mitigate project risk.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Unless quotas established for various positions, companies may just employ local people (especially women) for unskilled positions with few or no pathways for employee progression and skill development. Unrealistic expectations of project requirements can result in excessive skills development. 	<ul style="list-style-type: none"> Quotas without realistic supply-side strategies can create unrealistic expectations. Can generate industry resistance if commitment appears counterproductive to project efficiency. Particularly stringent frameworks can diminish the country's standing as an investment destination (particularly relevant for nascent producing countries). 	<ul style="list-style-type: none"> Companies may feel obliged to add more non-productive jobs to meet quotas. Can require significant capital outlays for preliminary training and skills development. Domestic skills may be insufficient to meet quotas, which could in turn cause non-compliance or compromise productivity.

* Policy impacts will inevitably be felt by stakeholders at all levels. For example, "guaranteed participation of locals in an extractives project" affects most immediately the locals who are employed, but increased local employment will also have positive implications for national socioeconomic growth, so will be in the interests of government. It will also promote project efficiency (and thus benefit private companies) and contribute to a positive industry reputation.



PREREQUISITES FOR SUCCESSFUL USE¹⁰

- Bureaucratic competency is critical to ensuring regulatory authorities enforce quotas and monitor progress effectively.
- “Regulating” demand necessitates an adequate supply base, that is, a pool of available and appropriately skilled employees ready to begin work (or to undertake targeted training) at required times. This is vital to maintaining an attractive investment and operative environment.
- At least to some degree, companies have to recognize the shared value of hiring locally. This means increasing awareness in the private sector of a country’s development status and objectives, and perhaps appealing to normative frameworks, e.g., UN Sustainable Development Goals or the ICMM 10 Principles.
- One option for making quotas more appealing is to introduce timeframes for compliance, e.g., 5-year or 10-year targets. These will need to be agreed upon by all stakeholders at the project outset and monitored effectively.
- There needs to be some in-built flexibility to address unforeseen circumstances and exceptional derogations, in case the labour force is not able to meet the employment requirements.

4.1.2 MANDATED REQUIREMENTS TO CONDUCT TRAINING OF LOCAL WORKERS OR SUPPORT THE DEVELOPMENT OF TRAINING FACILITIES

STRATEGY OVERVIEW

Mandated requirements to conduct training of local workers or to support the development of training facilities are another strategy used by host governments. Policies of this kind are a way of minimizing the costs incurred by the state in developing local skills according to a mining company’s requirements. While training plans can also be a voluntary component of a company’s human resources and corporate social responsibility frameworks, they often respond to regulatory requirements from a host government. Training commitments tend to be agreed at the outset of a mining project, in the initial negotiation stages when a company seeks approval in obtaining a mining licence.

Sometimes companies are wholly responsible for funding and conducting these training programs as part of the terms of their project engagement. In Norway, for instance, foreign companies are required, at their own expense, to permit employees of the state-owned oil company (Statoil) to participate in any internal training programs.¹¹ Similarly, in Malaysia, a contractor must commit to training staff of the national oil company (Petronas) through on-the-job schemes or within their own training institutions.¹² This allows the host state to benefit directly from a transfer to the domestic workforce of industry-level expertise.

In other cases, a company will be required to fund training schemes that may be undertaken by the state or other education and training providers. South Africa’s Liquid Fuels Charter¹³ specifies that licensees must make contributions to the “Upstream Training Trust” (UTT) to fund skills development

¹⁰ Governments will need to determine which policies work best within their particular national contexts and given their strategic economic and development objectives. This paper intends to present an array of possible policy options, with their associated strengths and weaknesses. The success of any approach will depend upon a variety of factors, some of which are beyond the scope of the domestic environment, for example, the impacts of changing global commodity prices.

¹¹ Article 2 of the 1988 and 1991 Model Training Agreements concerning Petroleum Activities.

¹² Article 26 of the Petroleum Sharing Contracts (“PSC”).

¹³ Page 6 of the Liquid Fuels Charter.



through project funding, human capital development, workplace integration, student bursaries, tertiary level support and career awareness (UTT, (2016). This can be a way for host governments to perform necessary up-skilling, but also ensure that the skills developed in the local workforce are transferable in the long term.

TABLE 6. EXAMPLES OF MANDATED TRAINING REQUIREMENTS

Angola (petroleum)	Articles 12 and 14 of the Decree Law on the rules and procedures to observe in recruitment, integration, training and development of workers from the oil sector ("Decree-Law 17/09")	Companies are required to make annual contributions to the training and human resource development of national citizens. These funds are used for a number of purposes, including: <ul style="list-style-type: none"> • To support dedicated training facilities (such as the National Petroleum Institute) • To cover the costs of specialization of Angolan personnel in the industry • To acquire books and technical equipment related to the training and expertise of staff • Assigned to universities and for the implementation of development projects in higher education and vocational training
Norway (petroleum)	Article 2 of the 1988 and 1991 Model Training Agreements concerning Petroleum Activities	Foreign companies are required to permit Statoil employees to participate in any internal training programs "for free" (i.e., at foreign company's expense).
Qatar (petroleum)	Section 15.5 of the Model Development & Production Sharing Agreement of 2002	Contractors shall prepare plans and programs for training and education of both male and female nationals at all levels of staffing "to improve their technical and professional competence and their management ability." All plans and programs shall have, as their objective, the placement of Qatari nationals in meaningful and productive roles in permanent positions in Petroleum Operations. Costs incurred by contractors in these training programs are to be submitted as Petroleum Costs.
Philippines (mining)	Section 136(d) of the Revised Rules and Regulations of R.A. 7942	Contractors are required to provide, at their own expense, "skills enhancement programs" where the requisite local expertise is not available.
South Africa (petroleum)	Petroleum and Liquid Fuels Charter (Schedule 1 of the Petroleum Products Amendment Act), p. 16	Requires all licensees to contribute funds to an "Upstream Training Trust" to fund skills development at various levels. Funded skills development will be devised to empower historically disadvantaged South Africans in the sector.
Malaysia (petroleum)	Article 26 of the Petroleum Sharing Contracts ("PSC")	Contractors must undertake the development and training of Malaysian personnel for all positions. Contractors are also required to commit to a minimum financial contribution to the training of (national oil company) Petronas staff, and must, at Petronas' request, commit to training Petronas staff through on-the-job training or within their own training institutions.
Afghanistan (petroleum)	Article 20 of the Afghan Amu Darya Basin Exploration and Production Sharing Contract	Requires contractors to train Ministry staff to undertake skilled and technical jobs in Hydrocarbons Operations for the state. Also requires contractors to train Afghan nationals for operative and staff positions and commit to minimum training expenditures.



Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Local people benefit from industry-led training that maximizes the chance their skills will fulfill project requirements. 	<ul style="list-style-type: none"> Costs outsourced to private sector, which is often willing to pay if it means local people are qualified according to industry standards. Reduced pressure on national education system to prepare project-ready workforce. 	<ul style="list-style-type: none"> Direct influence in developing workforce skills according to industry standards and project requirements.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Unless training-to-employment pathways are guaranteed, local people could face uncertainty over whether training will in fact enhance their employment prospects. 	<ul style="list-style-type: none"> Skills gap met by private sector training may not be integrated in national skills development programs. 	<ul style="list-style-type: none"> Additional costs, often incurred over the whole lifecycle of a mining project (as workers are upskilled to take on higher positions and succession plans are needed to replace expatriates).

PREREQUISITES FOR SUCCESSFUL USE

- Requires sufficient enforcement mechanisms and bureaucratic and educational administrative capacity.
- Relies on appropriate communication channels for information dissemination that enable local people to take advantage of training opportunities.

4.1.3 SUCCESSION OR LOCALIZATION PLANS

STRATEGY OVERVIEW

Sometimes the requisite skills for particular positions—usually technical, specialist or management positions—are not available in the local population and must be sourced elsewhere. In such cases, “succession” or “localization” plans can describe how mining companies intend to train local people to take over these positions within a given timeframe.

Although succession or localization plans can be a voluntary component of a mining company’s broader training and development strategy, they can also be required to meet regulatory requirements put in place by host governments. One example of this regulatory approach to succession plans is evident in Nigeria, where Section 31 of the Nigerian Oil and Gas Industry Content Development Act specifies that for each of its operations, an operator “shall submit to the Board a succession plan for any position not held by Nigerians and the plan shall provide for Nigerians to understudy each incumbent expatriate for a maximum period of four years,” at the end of which, the position shall become “Nigerianized.”¹⁴

In some cases, governments use a company’s succession plan to determine whether to allow or extend work permits for foreign nationals. In Tanzania, for example, under the 2014 Draft Local Content Policy, applicants for mining licences must prepare and submit a succession plan detailing how a national citizen could acquire the skills necessary to undertake the job that an expatriate is brought in to perform. The government of Tanzania then uses this plan to determine whether or not to extend the working permit of the foreign national (United Republic of Tanzania, 2014).

¹⁴ Nigerian Oil and Gas Industry Content Development Act, 2010.



When implementing workforce succession plans, policy-makers need to take into account the capabilities of the national environment in providing the requisite training if the skills needed by an extractives company are not present in the local population. A range of strategies may be needed to prepare local staff to take on certain positions (or progress to higher levels), including the introduction of technical training programs, on-the-job training schemes or higher education pathways. In some cases, implementing these strategies will require governments to collaborate with extractives companies—for example, a host government might provide a company with the funds to set up formal, targeted training programs for local staff (see Section 4.2.4 for more information).

TABLE 7. EXAMPLES OF LOCALIZATION PLANS

Nigeria (petroleum)	Local Content Act 2010	Nigerian locals can understudy an incumbent expatriate for a period of four years.
Tanzania (petroleum)	Article 13, Section 4 of The Petroleum (Local Content) Regulations, 2017	Companies must provide succession plans for Tanzanian nationals in order to be eligible to recruit foreign nationals.
Papua New Guinea (mining)	Draft Mineral Policy	The developer shall develop Training and Localization Plan (TLP) in consultation with the State through the National Training Council (NTC). The Training and Localization Plan shall be an annexure to the Benefit Sharing Memorandum of Agreement document and shall be administered by the Monitoring and Review Committee.
Malaysia (petroleum)	Article 26.2 of the of the Petroleum Sharing Contracts (“PSC”)	Contractors are required to train Malaysians to take over positions held by expatriates.

Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Existing local employees are provided with career pathways and development plans. On-the-job, context-specific training arguably more effective for skills transfer than theory-based learning processes. Enables knowledge sharing and peer collaboration. 	<ul style="list-style-type: none"> Bolstered local capacity increases competitiveness of national labour force. 	<ul style="list-style-type: none"> Prevents labour bottlenecks – gives companies time to develop local skills gradually. Allows companies to begin project (phases) and manage transitions concurrently.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Susceptible to workload transfer into the hands of community elites. 	<ul style="list-style-type: none"> Unless monitored effectively, plans can be a guise for non-compliance (training programs with little managerial commitment to workload transfer). 	<ul style="list-style-type: none"> Increased administrative costs. Double (or increased) wage provision.



PREREQUISITES FOR SUCCESSFUL USE

- Requires some form of monitoring and enforcement mechanism.
- Requires integration of economic, educational, technical and legal oversight.
- Requires appropriate infrastructure to train local people to take on skilled positions, or the capacity to collaborate with companies to fund the development of this infrastructure.

4.1.4 VISA RESTRICTIONS ON FOREIGN WORKERS

STRATEGY OVERVIEW

Due to the technical nature of mining projects, expatriate staff can be necessary to ensure the requisite specialist and technical skills are available, particularly in the early stages of a mining project. Host governments can choose to place restrictions on the amount of time foreign workers are employed on a given project or within certain positions in order to ensure skills are passed onto local workers.

The award or renewal of work visas for foreign workers is usually dependent on a mining company fulfilling obligations to hire a minimum number of local people overall or in certain positions. This is the case in Angola. In Tanzania, the government determines whether to extend a foreign worker's permit depending on the company's succession plan. In Angola, authorization to hire foreign nationals is granted only when a firm can show that the requisite number of qualified Angolan nationals cannot be recruited.

Allowing companies to import specialist human capital can ensure high-level skills are present in critical positions that determine project efficiency. Through dedicated succession plans or visa restrictions, mining companies are encouraged or mandated to take steps to assist knowledge transfer to local workers who will eventually take over positions held by foreign nationals.

TABLE 8. EXAMPLES OF VISA RESTRICTIONS ON FOREIGN WORKERS

Angola (petroleum)	Decree 5/95	Companies can only employ non-resident foreign workers if they satisfy quotas of local employees. One-year work visas for expatriates tend to be renewed no more than three times. Extensions to this period are contingent on the company having an explicit succession plan (International Trade Administration ([TA], 2017).
Philippines (mining)	Section 140-141 of the Revised Implementing Rules and Regulations of R.A. 7942 ("AO 2010")	Foreign workers can only be hired in positions that require highly specialized training and experience in exploration, development or utilization of mineral resources. Each foreign employment position can only last for a period of five years, during which time Filipino citizens must be trained as understudies for these positions.
Tanzania (petroleum)	Section 4 of The Petroleum (Local Content) Regulations, 2017	A company's succession plan will determine whether the government decides to extend a foreign national's work permit.



Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Increased likelihood of company compliance with quotas if visas for foreign workers dependent on minimum levels of local employees. 	<ul style="list-style-type: none"> Transfer of specialist and technical skills to the local population, especially when work visas are tied to succession plans. 	<ul style="list-style-type: none"> Permits companies a degree of agency in choosing workers. Presence of necessary skills in critical positions that dictate operation efficiency.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Presence of foreign nationals can cause social tension if cultural practices conflict and local people see jobs going to “outsiders.” 	<ul style="list-style-type: none"> Administrative costs in processing visa applications and checking that skills cannot be found in domestic workforce. There is the risk that companies will “cheat” the system by mischaracterizing the availability of skills in the domestic workforce. 	<ul style="list-style-type: none"> Visa restrictions can hold up operations if companies require specialist foreign skills quickly.

PREREQUISITES FOR SUCCESSFUL USE

- Processing visa applications can increase administrative costs, particularly in determining whether the requisite skills are indeed absent in the domestic labour force.
- Sufficient monitoring and enforcement mechanisms to ensure companies comply with the terms of the work visa, e.g., implementing a succession plan to replace the foreign worker with a national citizen.

4.1.5 MANDATED AGREEMENTS PROMOTING INDIGENOUS PEOPLE, WOMEN OR DISADVANTAGED GROUPS

STRATEGY OVERVIEW

Certain groups of people have historically been absent from the extractives industry, whether due to discrimination or limited access to employment opportunities. Women, for example, make up only 10 per cent of the global extractives workforce (World Bank, 2015) (for more information on women’s inclusion within mining, see Spotlight 1).

Local content policies can be a way of rectifying the imbalance of the industry to promote greater workforce diversity. Policy provisions often align with broader national frameworks to redress long-ingrained social and cultural inequalities. [South Africa](#), for example, has a well-known local content framework that is integrated with broader national strategies to address the wide-scale structural and social inequalities that have existed since apartheid for black nationals.

In other countries, such as [Australia](#) and [Canada](#), where mining projects tend to occur on or close to traditional lands owned by Indigenous communities, local content policy can facilitate the participation of Indigenous leaders in decision-making processes. Formal agreements, such as Benefit Sharing Agreements, that are negotiated between companies, state or provincial governments and Indigenous leaders, are used to set out the expectations of each party and the accepted terms of project engagement. These agreements often include collaborative partnerships or commitments to build capacity in Indigenous communities, particularly through hiring or training local Indigenous workers.



Local content policy is not sufficient in and of itself to rectify ingrained social inequalities. It can, however, be a valuable way of leveraging the significant benefits of an extractives project to catalyze or accelerate national efforts to effect justice. Provisions that require companies to give preference to women, Indigenous People or other marginalized groups through direct employment should also seek to address the contextual factors that obstruct access to opportunities. For example, quotas for women should be supported by policy provisions that require companies to implement strong anti-discrimination and anti-harassment mechanisms.

TABLE 9. EXAMPLES OF MANDATED AGREEMENTS

Canada (mining)	IBAs required by a number of First Nations Governments in order to conduct extraction on traditional lands.*	Impact and Benefit Agreements (IBAs) set out terms of engagement and responsibilities of governments/firms and Indigenous communities in mining projects. Consider esp. Diavik Diamond Mine – integrated approach to Indigenous training, employment and procurement; and Voisey’s Bay, Labrador – establishment of the First Nations-controlled Joint Education and Training Authority (JETA) to manage the “Innu, Inuit, and Métis Human Resources Development Strategy” (IIMHRDS).
Australia (mining)	Articles 2.3 and 2.6 of the Argyle ILUA Management Plan	Argyle aims to have Indigenous People comprising at least 40 per cent of its workforce during operations. Agreement states that Argyle will maintain a recruitment and training program designed to meet this target and will also facilitate skills training to assist local community members to obtain “more skilled jobs.”
South Africa (mining)	Articles 2.3 and 2.4 of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry 2017 (“Mining Charter”)	Requirements for the promotion and inclusion of HDSA (Historically Disadvantaged South Africans) (including women) in employment and training programs. (See South Africa case study).

* See especially Nunavut Land Claims Agreement (Article 26), Inuvialuit Final Agreement (Chapter 10), Labrador Inuit Land Claims Agreement (Chapters 6,7 & 8), Tlicho Agreement (Chapter 23), and Eeyou Marine Region Land Claims Agreement (Chapter 19) available in Kielland (2015).

Strengths of policy (categorized by level of immediate impact)

Community	Government	Company	Industry
<ul style="list-style-type: none"> Increased autonomy and decision-making power to communities (companies are required to negotiate for the project to go ahead/be successful). “Guaranteed” involvement of Indigenous/women/ other group members in project. Employment opportunities targeted toward those who could benefit to the greatest extent. 	<ul style="list-style-type: none"> A first step to rectifying ingrained injustice or disadvantage. 	<ul style="list-style-type: none"> Offers a chance for companies to consider how their practices could be improved to facilitate gender equity and safer, collaborative workplace cultures, among other things. Genuine engagement with disadvantaged demographics can increase a company’s “social licence to operate.” 	<ul style="list-style-type: none"> Aligns industry with UN Sustainable Goals (article 8) and ICMM’s Mining with Principles (principle 3). Can contribute to a positive industry reputation.



Weaknesses of policy (categorized by level of immediate impact)			
Community	Government	Company	Industry
<ul style="list-style-type: none"> • Can generate resentment on behalf of other (perhaps more skilled) members of local workforce who are overlooked in favour of representative individuals • System can be abused by wealthy and politically connected group members who use legal and political advantages to serve their own interests. This can mean that benefits do not extend to those who are actually disadvantaged 	<ul style="list-style-type: none"> • Can be seen as tokenism, especially if neither government nor private sector take responsibility for program outcomes 	<ul style="list-style-type: none"> • Potential for significant capital outlays if extensive training required by agreement (e.g., for individuals with no prior sector experience) 	N/A

PREREQUISITES FOR SUCCESSFUL USE

- Coordination among different stakeholders and integration of cross-sector policies
- Willingness of companies to take negotiations/agreements seriously and deliver on promises
- Relies on government support.

4.1.6 MANDATED REPORTING STANDARDS ON HOW LOCAL CONTENT REQUIREMENTS (ESPECIALLY QUOTAS) HAVE BEEN ACHIEVED (OR WILL BE ACHIEVED)

STRATEGY OVERVIEW

Mandatory reporting and measurement requirements contribute to the transparency and accountability of the industry as a whole and are a way for governments to monitor industry compliance with local content legislation. They can also be useful for mining companies to track their own progress in contributing to the sustainable development of host communities and creating more inclusive workplace cultures.

In [South Africa](#), for example, mining companies are required to produce annual reports that show how they have complied with requirements set out in the Mining Charter in support of the Broad-Based Black Economic Empowerment policy. There is a scorecard to assist companies in monitoring their progress, which measures nine different elements, including human resources development and employment equity. Weights are assigned to each element, and the value of the scorecard as a whole determines a company's level of compliance (CCSI, 2015).

In the Philippines, contractors and permit holders are required to set up community relations offices headed by sufficiently qualified officers who undertake monthly monitoring of their company's progress toward the Social Development and Management Program (SDMP): a "comprehensive five-



year plan” that sets out how the company will contribute toward the sustainable development and empowerment of host and neighbouring communities.¹⁵

In [Zambia](#), a holder of a mining licence must submit an annual operations plan for the coming year to the Director of Mines (CCSI, 2014). This plan must estimate the staff and labour requirements, including the number of national citizens and expatriates that will be employed, as well as the anticipated training programs. Concurrently, the licence holder must also submit to the Director of Mines an annual report for the preceding year that describes how many national citizens and expatriates were employed throughout the year and in what positions, and reports on the training programs that occurred. Countries such as Kazakhstan and Nigeria have similar annual reporting requirements.

In [Papua New Guinea](#), the Mineral Resource Authority convenes quarterly meetings where mining companies report on local content local stakeholders such as landowners and local level governments, and national stakeholders including the Department of Labour.

TABLE 10. EXAMPLES OF MANDATED REPORTING STANDARDS

South Africa (mining)	Article 2.9 of the Mining Charter	All companies to submit an annual plan to the regional manager, who is a member of the Regional Mining Development and Environment Committee.
Kazakhstan (petroleum)	Articles 76.19, 76.20 and 76.21 of The Subsoil and Subsoil Use Law	Compulsory reporting method to ensure enforcement of local content requirements (including quotas).
Philippines (mining)	Section 136 of the Revised Implementing Rules and Regulations of R.A. 7942 (“AO 2010”)	Community relations offices set up by contractors and permit holders must undertake monthly reporting against the Social Development and Management Plan, as well as provide the regional office with quarterly progress report.
Nigeria (petroleum)	Articles 60-63 of the Nigerian Oil and Gas Industry Content Development Act, 2010	All companies must submit annual Nigerian Content Performance Reports that describe (among other requirements) “the employment achievement in terms of hours or days worked by Nigerian and foreign workers and their status.”

Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> • Can increase company compliance, therefore more likely to meet community expectations for local workforce. • When information is shared with community stakeholders, improves transparency around local employment performance. • Reporting on successes and challenges, in particular stakeholder forums, can help communities to understand their roles in achieving local employment. 	<ul style="list-style-type: none"> • Enables easier monitoring and evaluation of company compliance and sector performance. • Easier to keep track of demand in order to manage supply. • Can enable comparison across projects/sites/companies. Data collected can be aggregated to form a national profile and contribute to global research for best practice. 	<ul style="list-style-type: none"> • Provides a framework through which companies can assess their own progress and plan recruitment. • Reporting of success and challenges in achieving local employment strategies helps companies to engage with stakeholders to develop shared strategies, in particular to improve the supply of skills.

¹⁵ Sec. 136 of the Revised Implementing Rules and Regulations of R.A. 7942, otherwise known as the Philippine Mining Act of 1995 (“AO 2010”).



Weaknesses of policy (categorized by level of immediate impact)		
Community	Government	Company
N/A	<ul style="list-style-type: none"> Administrative costs to review reports and tabulate data across projects. Requires significant levels of bureaucratic competencies to evaluate claims by companies that their operations cannot employ more local people (and must look overseas for required skills). 	<ul style="list-style-type: none"> Added administrative costs and time pressures. Reporting by itself is not always effective; stakeholder discussions through meetings and forums are often required for best outcomes.

PREREQUISITES FOR SUCCESSFUL USE

- High levels of bureaucratic competency, with transparent and responsible technical/administrative systems to assess reports fairly.
- Agreement of targets and consistency of expectations across public and private sectors.
- Requires some form of follow-on enforcement mechanism to be useful.
- Transparency, honesty and clear reporting at all levels of project operation by mining companies.

The Benefits of Centralized Data Collection

Data acquired through mandatory industry reporting can be fed into a centralized information hub managed at the national level or by an independent authority. Workforce data can help governments forecast demand to prepare an adequate supply base, as well as enable effective oversight of industry activity. An initiative of this nature requires significant coordination and accountability between sectors as is the case in [Chile](#).

SPOTLIGHT 1: EMPLOYMENT FOR GENDER EQUITY IN THE MINING INDUSTRY

Provided that the objective of local employment policies for direct employment is to stimulate socioeconomic growth and human development, then measures of policy success should be qualitative as well as quantifiable. They should take into account, for example, the nature and potential impact of direct employment, and whether opportunities have impacted those who are likely to benefit to the greatest extent from inclusion within mining projects. This is particularly relevant with regards to gender equity, and specifically, the promotion and inclusion of women in mining.

The extractives industry has historically been associated with intensive manual labour and has been male-dominated. Women’s employment in the industry is estimated at just 10 per cent globally (World Bank, 2015). Even those countries seen to be at the forefront of women’s participation rates in the labour force, such as Canada and Australia, have less than 20 per cent women in their mining and exploration workforce.¹⁶ High levels of under-representation within the industry mean that women often miss out on the benefits of mining activity and have little agency to ensure their voices are heard by people in positions of decision-making authority. Women are usually the ones most

¹⁶ It is relatively difficult to trace up-to-date statistics on the exact percentage of women working in the mining industry in Canada. A report by Women in Mining (2010) claimed that women made up 14.4 per cent of the mining workforce. In Australia, women make up roughly 14.7 per cent of the mining workforce (Australian Bureau of Statistics [ABS], 2014).



affected by the costs of local extraction, whether through displacement or the loss of livelihood with procurement of agricultural land.

It is estimated that closing the gender gap in labour force participation could increase annual GDP in some countries by more than 10 per cent by 2025, with both developed and developing countries standing to gain, and the highest relative boost predicted for India and Latin America (McKinsey Global Institute [MGI], 2015).

Increasing gender diversity within the mining sector is shown to drive innovation and boost productivity levels, as well as improve a company's relations with local communities (IFC, 2013). It can also be a way of aligning practice with international normative frameworks. For example, prioritizing the inclusion of women within the extractives industry aligns with Articles 5 on Gender Equality and Article 8 on Decent Work and Economic Growth of the Sustainable Development Goals¹⁷ (SDGs), as well as Principle 9 of the International Council on Mining and Metals (ICMM) 10 Principles, which specifies that members 'pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities' (ICMM, 2015).

States that wish to integrate gender equity provisions into their local content frameworks need to recognize the different ways that men and women experience the effects of mining projects. It is usually insufficient for the promotion of women's employment within the extractives sector to focus on women's *recruitment*. Policies also need to make sure that workplaces are safe and supportive, and have in place appropriate structures to prevent and deal with discrimination and sexual harassment. In Australia, for example, AngloAmerican Metallurgical Coal (AAMC) has established anti-bullying and anti-harassment policies in each of its mines and set up a globally managed program called "Speak Up" that enables workers to report discrimination. Rio Tinto Group enforces compliance training for all employees on issues of discrimination and harassment, and this training is repeated every two years. Rio Tinto Coal Australia also employs trained equal employment opportunity officers or sexual harassment officers at each site. Policies of this nature can also be implemented by governments in local content frameworks (Ozkan & Beckton, 2012).

Supply and demand arguments that consider women's under-representation to be simply a result of a smaller talent pool, are not correct. The traditionally male-dominated workplace culture and its infusion into working values and styles, as well as communication practices, and lack of support for managing family responsibilities, pose key obstacles for women's advancement (Ozkan & Beckton, 2012).

Cultural change requires normative change, and it is essential to this process that men working in the industry perceive women's inclusion as the desirable norm.

Supply and demand arguments that consider women's under-representation to be simply a result of a smaller talent pool, are not correct. The traditionally male-dominated workplace culture and its infusion into working values and styles, as well as communication practices, and lack of support for managing family responsibilities, pose key obstacles for women's advancement (Ozkan & Beckton, 2012).

Whether women actually have equal access to employment opportunities depends on whether they *perceive* those opportunities to be possible and desirable. For example, are there accessible education and training pathways for women to develop the required skills? Are there women-friendly

¹⁷ Article 5: Achieve gender equality and empower all women and girls; Article 8: Promote inclusive and sustainable economic growth, employment and decent work for all.



cultures within the workplace? Do companies offer flexible working conditions that take into account the family obligations of both men and women? Is there gender pay equity and meaningful career advancement?

An effective strategy for women's recruitment, retention and advancement requires the input of women at all levels. There also needs to be consistency and integration with national and regional policies and regulatory frameworks. Otherwise, "implementation and accountability remain weak" (Oxfam, 2017).

Example: Chile's Programa Mujer (Oxfam, 2017)

Public-private partnership to generate employment opportunities for women

Programa Mujer was an initiative of Minera Escondida, a leading copper-producing mining company located in Chile's Atacama Desert. Supported by Chile's Ministry for Women's Affairs, the program was a major recruitment drive for women with no prior experience to undertake positions with the mining company in the operation of heavy machinery. At the time of the program's implementation in 2003, the rate of women's unemployment in Chile was 36 per cent, one of the highest in Latin America.

Following a national ad campaign, 936 applications were received from women across the country who came from a variety of professional backgrounds. Of these, 238 successful candidates entered a three-month training program, which involved a comprehensive introduction to technical, mechanical and safety issues on mining sites, as well as the operation of machinery at Escondida's Norte Mine. Following significant training and evaluation, 11 women were hired on a permanent basis.

Despite the seemingly low number of women hired on a permanent basis, this program is seen to be a good example of the successful integration of women within the mining industry in a traditionally male-dominated capacity, i.e., mine operations. With support from both the private and public sectors—who worked in collaboration throughout the program's implementation—these women have been able to gain meaningful employment and challenge workplace stereotypes related to the types of roles that women are capable of performing.

4.2 EXAMPLES OF FACILITATIVE (INCENTIVE-BASED) POLICIES

4.2.1 PREFERENCE IN BIDDING PROCESS ON THE BASIS OF DIRECT EMPLOYMENT STRATEGY

STRATEGY OVERVIEW

Instead of imposing quotas, host governments can choose to apply higher preference weightings in the awarding of licences to those companies that put forward commitments to contribute to local employment and skills development. This is a way of incentivizing, rather than regulating, companies to prioritize local development considerations.

Policies that incentivize local content performance in the awarding of licences depend on a competitive market to be effective. If a mining company knows that it is competing with other companies for exploration or mining licences, it is more likely to adopt stronger local employment provisions for existing projects and in discussions with governments for prospective licences. Given that mining licences typically contain various provisions for a range of fiscal revenues, infrastructure investments and other provisions, it is up to a host government to decide how highly it weights local employment measures in the negotiation or bidding process.

Studies by the World Bank (Tordo, et al., 2013) and Gholzani (2010) on Brazil's bidding process have indicated that changing the weightings applied to local content requirements can affect the level of local content commitments in concession agreements. This suggests that these types of incentivizing policies can be effective in influencing company behaviour, at least at the outset of a project.



TABLE 11. EXAMPLES OF FACILITATIVE (INCENTIVE-BASED) POLICIES

Brazil (petroleum)*	Regulation overseen by the National Agency of Petroleum, Natural Gas and Biofuels (ANP)	Local employment and training commitment one of three determinants in awarding contracts.
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* As of late 2017, Brazil will no longer include local content as a bid factor; it will serve only as a contractual clause with requirements to be met by oil companies in extractive projects (see Filho, 2017).

Strengths of Policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Mining companies with strong social performance in the area of local employment more likely to be awarded exploration and mining licences. Stronger targets set for local employment. 	<ul style="list-style-type: none"> Generates sector competitiveness for best practice in local employment. 	<ul style="list-style-type: none"> Awards on basis of improving performance rather than meeting a minimum threshold. Requires companies to do their own research about extractives sites and local communities (i.e., the supply base).

Weaknesses of Policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Company’s strategy may present the (comparatively) best targets in terms of numbers, but have no stipulations on the nature of employment opportunities (e.g., casual work only as opposed to stable employment). Targets could be unrealistic and create unmet expectations. 	<ul style="list-style-type: none"> Targets could be unrealistic and create unmet expectations. 	<ul style="list-style-type: none"> Competition could lead companies to set unrealistic targets that are largely unachievable, leading to unmet expectations, fines or delays in project execution.

PREREQUISITES FOR SUCCESSFUL USE

- Governments need to have a comprehensive understanding of internal capacity and what can be realistically achieved by companies within a given project. Otherwise, licences could be awarded to companies that have set impossible targets and consequently struggle with execution.
- Clear and mutually agreed targets, with designated timeframes, need to be set before the commencement of a project.
- This approach requires effective monitoring, evaluation and enforcement mechanisms.

4.2.2 PROVISIONS THAT LOCAL PEOPLE WILL BE USED “TO THE EXTENT FEASIBLE”

STRATEGY OVERVIEW

Provisions for the employment of local people “where possible” create a culture of expectation that companies will engage with local communities across the life cycle of a mining project; they also give companies room to move if specialist skills cannot be found within the local community.

The benefit of non-binding provisions is that they give host governments (and mining companies) time to determine local capabilities. Non-binding provisions also give host governments time to assess whether stronger or more prescriptive policy mechanisms are necessary to create local



employment beyond what is already practised by mining companies as part of their corporate social responsibility programs and in an effort to drive down costs (Esteves et al., 2013).

Governments at various levels can also assist companies in maximizing local employment by providing information on local education and training certifications, or through working with agencies to develop skills inventories of local residents who are interested in undertaking employment within the industry, as is the case with the Joint Education and Training Authority (JETA) in Voisey's Bay, [Canada](#).

Given the subjective nature of non-binding stipulations, and the fact that compliance cannot be legally enforced, monitoring of company activity, ideally through regular reporting mechanisms, is important to gauge whether local citizens are being given priority in all jobs for which they are sufficiently qualified.

TABLE 12. EXAMPLES OF PROVISIONS THAT LOCAL PEOPLE WILL BE USED "TO THE EXTENT FEASIBLE"

Australia (mining)	The Australian Industry Participation (AIP) National Framework (Foreword)	The aim of this policy is to give "full, fair and reasonable" opportunity in employment and tendering to Australian firms and individuals (no hard targets prescribed).
Philippines (mining)	Sec. 62 of the Mining Act	Companies must give preference to Filipino citizens in all positions for which they are qualified.
Botswana (mining)	Article 12.2 of the Mines and Minerals Act, 1999	Holders of mineral concessions must employ Botswana citizens to the "maximum extent possible consistent with safety, efficiency and economy."
Zambia (mining)	Articles 13(2) and (3) of the Mines and Minerals Development Act, No 7 of 2008	Holder of a mining right/licence must give maximum preference to the employment of Zambian citizens.

Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
N/A	<ul style="list-style-type: none"> • Can align well with international trade regulations. • Conducive to multistakeholder collaboration and deliberation—gives scope for ongoing evaluation of what is "possible." • Arguably more effective at preventing a supply bottleneck than a system of quotas. 	<ul style="list-style-type: none"> • Flexible provision—specifics of strategy adaptable to contextual variables.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> • Increased uncertainty about employment opportunities. 	<ul style="list-style-type: none"> • Can be less useful for those (particularly developing) states that require a more regulatory approach to standardize expectations and manage compliance effectively. • Lack of implicit accountability. • Difficult to monitor results and ask companies to justify their employment strategies. 	<ul style="list-style-type: none"> • Can lead to uncertainty about what is possible or what best practice looks like.



PREREQUISITES FOR SUCCESSFUL USE

- Government capacity critical to ensuring compliance and specifically, to determine that companies are operating both transparently and responsibly.
- Integrated economic, financial, technical, legal and educational oversight needed to determine the appropriate parameters of what is “feasible.”
- Related policies, such as legal stipulations that require local employment only “insofar as the skills compare to those available abroad and do not require additional economic burden,” are similarly difficult to enforce. They require comparison across different national contexts that are susceptible to a variety of social, economic and environmental factors. High levels of bureaucratic competency and knowledge of the international market are essential to the success of such provisions.

4.2.3 FISCAL INCENTIVES SUCH AS TAX INCENTIVES, LEVIES AND SUBSIDIZED FINANCING

STRATEGY OVERVIEW

Fiscal incentives are often more attractive to mining companies, who can offset their local content contributions in a favourable fiscal environment. Incentives can take the form of tax incentives, levies and subsidized financing.

Particularly in those areas that are deemed to be a national development priority, such as training for valuable skills development, host governments can offer significant fiscal rewards. Thailand, for example, gave companies a 150 per cent tax deduction for those training expenses recognized by the Ministry of Labour (United Nations Conference on Trade and Development [UNCTAD], 2001). Incentives of this kind can work well when there is uncertainty about the benefits of more regulatory stipulations, i.e., when there is uncertainty about what the domestic environment can provide in terms of skills, and the implementation of quotas seems unfeasible.

A survey undertaken in 2014 (Africappractice & Pinsent Masons, 2014) reported that a majority (55 per cent) of participants (industry experts working in the African mining, banking, consulting or energy sectors) agreed that fiscal incentives were preferable to other policy measures in encouraging company compliance with local content regulations.

TABLE 13. EXAMPLES OF FISCAL INCENTIVES

Papua New Guinea (mining)	Training Levy, under Division 14D, 196Z of the Income Tax Assessment Act 1959	Businesses whose annual payroll exceeds PGK 200,000 are subject to a 2 per cent training levy, calculated on the taxable salary/wages, including benefits, of all personnel. Qualifying training expenses can also be claimed to offset the training levy. The amount of the levy payable is reduced by training expenses incurred in the training of citizen employees.
Azerbaijan (petroleum)	Article 6.8 of the Production Sharing Agreement for the Shah Deniz project	Training expenditures that are in excess of 200,000 dollars in any year are cost recoverable.
Angola (petroleum)	Article 20 of the Decree-Law on the rules and procedures to observe in recruitment, integration, training and development of workers from the oil sector (“Decree-Law 17/09”)	Financial contributions to human resource development are tax deductible



Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
N/A	<ul style="list-style-type: none"> Generates competitiveness for best practice 	<ul style="list-style-type: none"> Voluntary measures mean that companies can choose whether or not to take action. Benefits awarded on basis of good practice rather than compliance with regulation. Incentives serve as way of levelling the playing field for capital outlay.

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
N/A	<ul style="list-style-type: none"> Can deter investment in other sectors. Could lead to rent seeking behaviour: for example, through fraudulent declarations to tax authorities, or by those who have conflicts of interest in training programs. Opportunity cost of resources to host governments. 	<ul style="list-style-type: none"> Can distort competition if incentives favour large corporate investors/ companies to the detriment of smaller ones.

PREREQUISITES FOR SUCCESSFUL USE

- High levels of transparency and accountability in bureaucratic and company management. Clear expectations and communication regarding exact requirements for award of incentive benefits.

4.2.4 SUPPORT FOR THE CREATION OF EDUCATION AND TRAINING FACILITIES AND PROGRAMS

STRATEGY OVERVIEW

Governments can also provide direct financial or in-kind support for the creation of education and training facilities or programs for the mining sector. Programs of this nature require governments to work in collaboration with mining companies, technical training colleges, the tertiary sector and other training providers to assess current gaps in the education and training landscape and agree on what are typically multistakeholder education and training partnerships.

For example, a government may choose to fund a dedicated training institution, internship scheme or skills development program if a company takes responsibility for running these in accordance with project needs. Alternatively, a training and development investment may be agreed as part of the awarding of a mining licence. Ongoing communication and coordination of collaborative inputs is necessary to ensure stakeholders at all levels have shared expectations about what can be achieved within given timeframes.

Other training programs can involve collaboration with the international education sector. In Nigeria, the Institute of Petroleum Studies (IPS) offers certified and internationally recognized programs for direct local employment within the extractives industry. Established in 2003 through a collaboration between the University of Port Harcourt, Nigeria, and IFP School, France, IPS works with other higher education institutions such as the Imperial College of Science and Technology in London and the Colorado School of Mines in the United States to pursue an “aggressive policy of home-grown human capital development in line with world standards” (Institute of Petroleum Studies [IPS], 2017). The institute is jointly funded by oil and gas company TOTAL E&P Nigeria Limited and the state-owned Nigerian National Petroleum Corporation.



TABLE 14. EXAMPLES OF SUPPORT FOR THE CREATION OF EDUCATION AND TRAINING FACILITIES AND PROGRAMS

Nigeria (petroleum)	Institute of Petroleum Studies offers certified and internationally recognized programs for direct local employment. Works in collaboration with other postgraduate institutions in United Kingdom and United States. Jointly funded by the Nigerian National Petroleum Corporation (state-owned entity).
Canada (mining)	State commitment of CAD 25 million to the Innu, Inuit and Métis Human Resources Development Strategy (IIMHRDS) for maximizing Indigenous employment and career progression through training programs.
Chile (mining)	<ul style="list-style-type: none"> Programa Mujer – supported by Chile's Ministry for Women's Affairs. Recruitment drive for women (with no prior experience) to undertake roles involving the operation of heavy machinery in the mining industry. Large-scale training and evaluation program (for more information, see Spotlight 1). Government offers certification to companies that meet a certain set of criteria with respect to gender equality.
Brazil (petroleum)	<ul style="list-style-type: none"> Since the 1990s, Brazil has set aside a percentage of oil sector royalties for the Oil and Gas Sectoral Fund which supports, among other things, specialized learning at existing institutions. It has provided over 5,000 postgraduate scholarships since 1999 for professionals destined for the oil, gas and biofuels sectors.

Strengths of policy (categorized by level of immediate impact)

Community	Government	Company
<ul style="list-style-type: none"> Cross-sector collaboration improves program relevancy and broadens scope of impact. 	<ul style="list-style-type: none"> Platform for multistakeholder collaboration and integrated cross-sector coordination. Government can influence companies' investment into specific projects that serve local economic and development needs. Joint schemes mean shared responsibility among stakeholders for program success (as opposed to government fulfilling merely a regulatory or monitoring role). 	<ul style="list-style-type: none"> Collaboration allows for a more sophisticated overall understanding of the contextual factors at play in facilitating direct local employment (e.g., dynamic of supply and demand).

Weaknesses of policy (categorized by level of immediate impact)

Community	Government	Company
N/A	<ul style="list-style-type: none"> Other stakeholders left to take up the slack if partner fails to comply with project agreements (also company concern). 	<ul style="list-style-type: none"> Joint schemes susceptible to misunderstandings between stakeholders about roles, responsibilities and expected outcomes (also government concern).

PREREQUISITES FOR SUCCESSFUL USE

- Success depends on open communication channels and commitment from all parties.
- Agreement from all stakeholders on respective roles and responsibilities.
- Shared expectations about what can be achieved in given timeframes.



SPOTLIGHT 2: CREATING A CAPABLE SUPPLY BASE: THE IMPORTANCE OF EDUCATION AND TRAINING PROGRAMS

Arguably the most effective way that a government can prepare a local workforce is by making sure there are relevant, high-quality education and training pathways accessible to the general population. Given the highly specialized and increasingly technologically advanced nature of the mining industry, mining companies need to be able to trust the technical (e.g., metallurgy, mine engineering, geology, civil engineers) and professional degrees (e.g., accounting, human resources, management) acquired at tertiary institutions, as well as trade qualifications (e.g., fitters, boiler makers, safety accreditation).

The process of making sure that education and training programs are producing skilled, technologically literate graduates can be expensive and difficult to resource, particularly in developing countries.

In cases where governments are unable to provide tertiary and trade training that meets the requirements of the industry, local content provisions can be used to incentivize private sector assistance or other collaborative partnerships. For instance, fiscal incentives such as tax incentives, levies and subsidized financing can encourage mining companies to invest in targeted training programs for local employees. These training programs may be developed in cooperation with local providers (for instance, technical training colleges) or, where necessary, international providers. Private sector involvement in training has the dual benefit of easing financial pressure on the state, as well as ensuring that local employees learn valuable skills that are directly applicable to the industry. Another option is to fund scholarships for overseas education of mining sector professionals.

Once a government can demonstrate to the mining industry that there is capacity within its local workforce to meet the human resource requirements of a mining project, it will be more likely to see a readiness within the industry to bring in those local skills through direct employment. Ideally, creating sufficient and capable supply will, in turn, create demand. On the other hand, weak technical and vocational training will serve to perpetuate low productivity and diminish demand, creating further challenges within the domestic landscape that impede the effectiveness of local content policies.

Regulation can only go so far in creating opportunities for local communities. A mining project represents a significant opportunity to boost a country's development, but governments also have a role to play in measuring the skill set of their domestic workforce and intervening where possible to fund or assist the development of training pathways that enable local employees to meet industry requirements. Ideally, the skills acquired by employees need to be transferable to other sectors in order to contribute to labour and workforce mobility. It is therefore important that governments continue to evaluate their national education and training systems, and see investment for their improvement as key to the success of any local content framework for direct employment.



5.0 GUIDING PRINCIPLES: OVERALL RECOMMENDATIONS FOR POLICY DEVELOPMENT AND IMPLEMENTATION

The following guiding principles will help governments and policy-makers create inclusive and well-informed local employment policies that are appropriate to their domestic context and stage of development.

DEVELOPING AN EFFECTIVE POLICY FRAMEWORK

- i. **Situate local employment policies within the national development context.** There is no one-size-fits-all set of local content solutions for direct employment. Local employment policies are context-specific and are intended to reflect the particular needs and capacities of a host country at a given stage of development. Governments need to let the priorities of their national development plans inform their engagement with the mining sector and incorporate their development goals into local content policies.
- ii. **Communicate with the private sector and industry specialists.** Ongoing communication with the private sector and industry specialists is key to understanding the exact requirements of a mining project, as well as the more general cross-cutting requirements of the sector as a whole. Governments can then gauge how to balance the need to meet professional industry standards with the realization of their own strategic objectives. Communication with industry helps to create shared expectations about what can, and what ought to be, achieved within given time periods.
- iii. **Create an employment-ready workforce so that supply matches demand.** Regulating demand (i.e., through quotas, minimum requirements) is counterproductive in the absence of adequate supply. Governments play a vital role in building competency and developing skills in the domestic population through the development of targeted, high-quality and independently certified education and training programs. Ideally, this should be done in collaboration with industry stakeholders.



IMPLEMENTATION, MONITORING AND REPORTING

- iv. **Integrate local content policies into existing national policy frameworks.** Local employment policies should be consistent with—and integrated within—broader national and regional policy frameworks. This requires coordination across different levels of government to make sure there is shared understanding of policy objectives and a consistency of approach in policy implementation.
- v. **Targets and expectations should be consistent and transparent.** Governments should be transparent from the outset in their communication of local content requirements. An attractive investment landscape is one in which there is predictability about how local employment policies will be enforced, and companies can prepare to meet regulations accordingly.
- vi. **Collect data to inform ongoing development.** At present, there is a lack of empirical data on employment outcomes within the extractives sector, and little analysis of the effectiveness of different local content policies on generating meaningful local employment. Centralized data collection processes at the national level can help to monitor the sector as a whole; improved coordination at the global level would contribute to a wider body of knowledge on the global mining workforce.
- vii. **Establish strong measurement and reporting processes.** Measurement and reporting mechanisms and targets ought to be clear, achievable and well understood by all stakeholders. There needs to be sufficient bureaucratic competency to undertake evaluation tasks transparently. Consistent definitional terminology also helps to create shared expectations among stakeholders.

FOSTERING INCLUSIVE, EQUITABLE EMPLOYMENT OPPORTUNITIES

- viii. **Support the progression of gender equity goals.** Specific provisions should address the under-representation of women in the mining sector. They need to be developed in consultation with women working in the industry, as well as those living in communities near extractive sites, and should take into account the full range of factors that influence women's decisions to enter and retain employment within the sector. Policies should be supported by appropriate investments in resources to promote safe and supportive workplace cultures for women, as well as consistent enforcement mechanisms to prevent and deal with harassment and discrimination.
- ix. **Create opportunities for the direct participation of Indigenous Peoples.** Local content frameworks should respect the concerns and connections to traditional lands of Indigenous Peoples. Formal agreements with Indigenous communities should include clear training and employment pathways, as well as monitoring mechanisms.
- x. **Facilitate economic diversification.** Direct employment statistics usually include a significant proportion of casual or seasonal employment positions, representing relatively insecure employment. Securing stable and decent work for citizens is critically important to a country's development. It is important that governments and policy-makers consider whether the skills developed through training programs are transferable, and whether there are appropriate and accessible pathways open to workers who may otherwise be left unemployed at the end of extractives contracts. Economic diversification is critical to a country's sustained growth and prosperity.



- xi. **Revisit policy choices amid a developing domestic environment.** Certain prescriptive strategies and laws can be phased out once a country has reached desired levels of socioeconomic progress, so as to avoid stifling investment and constraining industry growth. As a tool for human development and economic growth, policies for local employment should be viewed as temporary, rather than permanent, measures (Nwapi, 2015).
- xii. **Prepare for the future of the mining industry.** Trends in automation technologies and innovation in the mining sector are likely to have significant impacts on the number and types of jobs that the industry will need in the future. Fewer employment opportunities with different skills requirements may result from greenfield investments and retrofits, as mines adapt their production processes to new technologies. These shifts in workforce requirements will have a direct impact on the ability of governments to enforce compliance with local content requirements, and on the economic benefits that companies will leave behind. Governments must work with the mining industry to prepare for these changes, both in terms of the skills that will be needed to remain competitive as new technologies come online, as well as the potential for the overall number of jobs in the sector to decline as automated production technologies become more common. Alternative livelihood projects and new forms of partnerships among communities, companies and governments will be required to ensure that the social and economic benefits of the sector are captured by host governments and their peoples.



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