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LOCAL CONTENT POLICIES IN MINERALS-EXPORTING COUNTRIES,
CASE STUDIES

This paper contains ten country case studies of local content policies and capacity building measures implemented in the mining sector. It complements Local Content Policies in Minerals-Exporting Countries [TAD/TC/WP(2016)3/PART1/FINAL] which gives an overview of measures used and provides some observations about their efficacy and the desirability of their use.

Collaboration: The country chapters included here have been reviewed by relevant authorities in the case of the following countries: Australia, Brazil, Canada, Finland, Mozambique, Peru and South Africa. This draft was prepared by Isabelle Ramdoo, formerly Deputy Head of Programme, Economic Transformation at the European Centre for Development Policy Management (ECDPM). Valuable inputs were received from Dan Lui and Karim Karaki.

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LOCAL CONTENT POLICIES IN MINERALS-EXPORTING COUNTRIES, CASE STUDIES

Executive Summary

This paper reviews the local content and procurement policies of ten countries as they apply to the mining sector. It includes three OECD countries—Australia, Canada and Finland; five developing countries—Brazil, Ghana, Papua New Guinea, Peru and South Africa; and two least developed countries—Liberia and Mozambique. There is a wide range of approaches in the ten countries examined due to different objectives of local content policies, the place and history of the mining sector, and the overall level of development. The policies reviewed here provided the backdrop to the classification of local content measures outlined in the companion paper *Local Content Policies in Minerals-exporting Countries Part 1* [TAD/TC/WP(2016)3/PART1/FINAL]. A short description of the local content and procurement policies in each of the ten countries covered can be found in the “Main properties” section at the end of each chapter; these policies are further summarized below.

Australia

Local content policies in the mining sector are defined at the national as well as the State level in Australia. The key principle in Australian policies is to offer ‘full, fair and reasonable’ access to employment and tendering opportunities to Australian firms and individuals. Alongside this is a relatively soft requirement for firms to implement the “fair, full and reasonable” principles for procurement and employment, there is a strong reporting requirement on the measures taken to recruit and procure locally. The monitoring component of Australia’s policies is also key to ensuring public accountability. There is a clear focus on supporting supplier firms at a crucial point in the supply chain which was deemed to be the contract tendering process, with a “hands-on” approach to bring suppliers to a position where they are informed of, and can compete, in industry tenders. The mining equipment, technology and services (METS) sector has been highly developed and now comprises 7% of Australia’s GDP and 7% of its employment, much more than mining itself. Although development of the sector happened organically due to demand for such services from mining firms, some policies to foster the sector were implemented, for example, by ensuring alignment of its education system with the demands of the industry through public-private partnerships. The Australian government has also aimed to support the sector by removing overly burdensome regulations, improve engagement between industry and research, facilitate access to global supply chains and improve the management and workforce skills in the sector. A number of more interventionist policies such as Buy Australia or duty-free imports for firms that develop and implement a local content plan in the context of an Australia Industry Participation plan, have been phased out since 2014.

Canada

The local content measures specific to the mining sector outlined here are heavily focused on supporting Indigenous peoples as a key target group. This approach offers insights on targeting and benefiting distinct or specific groups that might otherwise be marginalised or disenfranchised by mining activity in or near their communities. It should be noted however that the government of Canada does not consider these policies to be local content policies per se. Local content policies are rooted in requirements to consult with local communities over mining development that may impact asserted or established Aboriginal or Treaty rights and are focused less on prescribed and formal tools instilled in legislation and instruments, and more on ad hoc, practical “partnership approaches” to negotiated agreements with stakeholders. The approach is thereby flexible, caters to different circumstances, and allows for revision

over time. Such an ad hoc approach is necessarily strongly influenced by the negotiating strategy and strength of local communities and may also imply less comprehensive enforcement and monitoring of agreements. The Investment Canada Act requires that large foreign investments or acquisitions undergo a review to determine if they create a "net benefit" to Canada. In order to obtain approval, firms may be obliged to ensure that a majority of senior management is Canadian, maintain certain levels of employment or commit to an R&D budget. Canada also provides incentives to firms to establish or relocate R&D facilities within provinces in order to receive tax incentives or other forms of support.

Finland

Mining has been a prominent part of Finland's economic history for centuries but the extractive industries are today dwarfed by the contribution of mining services and suppliers of technological solutions. The sector has successfully managed to evolve from a raw materials based industry towards higher value added and knowledge intensive activities. Today, Finland positions itself as a "solutions" provider able to offer tailor-made packages that respond to the specific needs of mining firms. Policy priorities in Finland shifted to strengthen its position as a world-class supplier of goods and services to the mining sector, with a particular focus on innovation and technology. Capacity development was prioritized, in particular by hiring foreign experts, training Finnish engineers abroad and "learning-by-doing". Finland also prioritized the role of investment in technology creation, including through state subsidies. The Finnish government favoured a cluster strategy and changed its role from that of a driver to that of a facilitator, in particular to provide a better business environment.

Brazil

The mining sector in Brazil is a mature industry and policies have evolved with the realities and demands of the sector. Local content measures include national employment requirements that are not particularly stringent but that are augmented in some regions by additional obligations that may include local employment targets. Suppliers' development programmes have been used extensively by large mining firms operating in Brazil. Given their deep understanding of realities on the ground, mining firms helped to conduct diagnoses to identify opportunities for suppliers and potential gaps in local capabilities. One suppliers' development initiative aiming to build capacity among SME suppliers and provide greater transparency of information about opportunities has been managed by a business association funded by 15 firms operating in diverse sectors such as mining, energy and agri-business. This may be a particularly efficient mechanism for increasing capacity among potential suppliers as some inputs and skills are portable across sectors. It may also support a move toward diversification and adaptability for suppliers. There is no monitoring mechanism in place in Brazil to objectively assess to what extent certain policies have worked and it is therefore difficult to ascertain the effectiveness of different approaches. Nonetheless, many mining firms report positive impacts of their suppliers' initiatives in the communities in which they operate. Vale, one of the largest mining firms which is based in Brazil, itself indicates that its local procurement has increased substantially since its suppliers' development programmes were implemented. In April 2015, Vale estimated that more than 90% of its purchases were from local Brazilian suppliers and that local content increased in its main Brazilian operations from 54% in 2012 to 63% in 2014.

Ghana

Mining in Ghana has traditionally centred on gold mining which has often been small-scale. The Ghanaian government has sought to increase mining activity in recent years, and to increase its contribution to the economy. In particular, it has set very high mandatory employment targets: all unskilled labour must be Ghanaian and at least 90% of senior management (increased to 94% after three years). These rigid requirements include some flexibility, for example if sophisticated machinery is used that needs more specialized skills than can be found locally. Procurement requirements are closer to "best

effort" although tenders with the highest level of Ghanaian participation are to be selected where they are price-competitive. Eight products have been deemed promising for local procurement to the mining industry and suppliers in these areas have been supported through development programmes and increased access to finance and technical assistance. Ghana has instituted strong monitoring and enforcement mechanisms with severe penalties for non-compliance with employment targets, and even for non-compliance with reporting requirements.

Papua New Guinea

At present, the local content policies in Papua New Guinea are largely expressed in Benefit Sharing Agreements (BSAs) between different stakeholders including national and provincial governments, mining firms and local communities. A key feature of these agreements is that they are broad in scope and can include policies that are generally implemented at the national level such as royalty rates and payments. Since the BSAs are negotiated between mining firms and key stakeholders in remote areas of PNG, these agreements tend to be context-specific, and there is little or no harmonization among agreements at the national level. Despite the general perception that some benefits have been delivered, most notably in terms of local employment, enforcement has proved challenging, in part because outcomes tend to be poorly monitored. The community-level BSA model may, however, be a pragmatic way to find consensual agreement with relevant local stakeholders, given the history of mining in PNG.

Peru

Peru does not have local content or procurement targets that apply specifically to the mining sector although mining firms agree to prioritize local hiring and procurement and report on their progress. There are, however, local employment quotas that apply to all firms: not more than 20% of jobs and 30% of total payroll can be accorded to non-Peruvians. Some mining firms active in Peru have implemented suppliers' development programmes similar to those in place in other countries in the region such as Brazil and Chile. In particular, processes in which suppliers are invited to offer solutions to recurrent problems and suppliers' training programmes in which they increase their skills and can obtain new certifications seem to have produced benefits for both local suppliers and large mining firms.

South Africa

South Africa has among the most detailed and complex local content and procurement legislations and frameworks. The local content requirements include employment quotas at all levels of the firm, ownership requirements, procurement targets, mandatory expenditure on training and suppliers development. Local content provisions represent an attempt to increase the participation of local actors in the mining industry, correcting at the same time historical imbalances due to the apartheid period. The targeted populations are the Historically Disadvantaged South Africans (HDSA) who make up about 90% of the population. Procurement targets are not as much an attempt to localize purchases from abroad as to ensure a representation among targeted populations. An assessment of procurement and enterprise development targets showed that large firms have made significant efforts to source from local HDSA suppliers. Similarly, employment equity targets were largely met, although further increases in local employment at senior and middle management levels will need to be linked to scaling up skills in order to meet the competency requirements. However, these targets are highly complex, complicated and difficult to understand for mining firms as well as for the beneficiary target groups, leading to differences in interpretation. Additionally, they have led in some cases to capture by certain groups within the targeted population, prompting the South African government to institute a Code of Good Practice for the South African Mineral Industry to define ethics of conduct and prevent abuses such as fronting practices and opportunistic behaviours.

Liberia

In Liberia, investment in large mining projects is very recent and the design of mining frameworks is still in progress. Over the last few years, exploration has been underway and a number of larger-scale mining projects are currently nearing the end of the development phase. Under current legislation, many aspects of local content policies can be described as "best endeavour". In terms of procurement, for example, many mining development agreements suggest that preference should be given to Liberian suppliers if they are competitive in terms of price and quality. Investment provisions provide additional incentives to firms that include over 60% of Liberian content in their production processes. In terms of employment requirements, there is an obligation to hire Liberians for all unskilled positions. For skilled positions, many recent agreements state that firms must submit a plan to ensure that 30% are filled by Liberians after five years, and 70% after 10 years. Some evidence suggests that compliance mechanisms are not fully operational and that firms may not meet these obligations.

Mozambique

Despite Mozambique's rich resource endowment, large-scale industrial mining activities are fairly recent. This is reflected in the recent evolution of the legal framework, which is only starting to clearly define objectives and the means to achieve them. Recent regulatory reforms have adopted a relatively flexible approach, and seek to gradually increase the participation of Mozambicans in the mining sector, but without obliging firms to adhere to numerical targets to meet this objective. One area where Mozambique has imposed targets is in equity participation: mining firms are obliged to have between 5 and 20% of their equity held by Mozambicans. There have been some suppliers' development programmes instituted in Mozambique with varied success. The challenges are, however, immense: one study estimated that 99% of Mozambican firms had sufficiently flawed performance that they would have difficulty supplying globally competitive mining firms.

Introduction

This paper serves as background material to the companion study *Local Content Policies in Minerals-Exporting Countries* [TAD/TC/WP(2016)3/PART1/FINAL], which suggests a classification of local content and procurement measures and draws some implications for policy from the experiences outline here. Part 2 of this study examines in more detail various approaches and practices used by a selected group of ten minerals-rich economies to implement various forms of capacity building, local content and procurement policies. Countries have been selected based on the following criteria.

1. Their **economic structures**, in particular, the relative importance of the mining sector compared to the rest of the economy; their levels of development, and the maturity of the mining industry;
2. Their **priorities and policy orientations**, in particular what factors and imperatives drive the interventionist policies.
3. Their **policy choices**, that is, whether a regulatory-based or incentives-based approach is adopted, public-private partnerships, as well as agreements driven by communities are examined.

For the purpose of the analysis, the ten countries have been grouped in three categories, namely (i) OECD countries; (ii) developing economies, and (iii) least-developed economies.

OECD COUNTRIES THE CASE OF AUSTRALIA, CANADA AND FINLAND

THE CASE OF AUSTRALIA

1. The mining industry is a significant contributor to the Australian economy. The sector is of key importance for several reasons. First, the country is endowed with significant minerals and metals, which make an important contribution to the economy as a whole. Second, thanks to its rich mineral endowments, Australia has become home to some of the largest global mining firms in the world, such as Rio Tinto and BHP Billiton, with global investment interests and footprints. Finally, Australia has become a key player in mining equipment, technology and services (METS), becoming an important global supplier of services.

Overview of the Mining Sector

2. The mining industry has shaped the socio-economic history of Australia over the last two centuries. Since then Australia has been at the forefront of successive global resource booms. The mineral reserves of the country are vast, diverse and of high quality. It is the world's largest producer of bauxite and iron-ore, the second largest producer of alumina, lead and manganese; the third largest supplier of nickel, gold, zinc and uranium and has the third largest commercially viable deposits of diamonds. Australia is also the fourth largest producer of aluminium, black coal (though the largest exporter, with about 35% of international trade) and silver; and the fifth largest producer of tin.

3. In 2014 the mining sector, excluding services to mining, contributed around AUD 139 billion to Australia's AUD 1 598 billion GDP, or around 8.7% of the total. Export earnings from commodity and energy resources were AUD 172 billion in 2014-15 (of which AUD 26 billion is oil and LNG), approximately equivalent to 50% of total exports. These are forecasted to increase by around 6% annually to AUD 235 billion in 2019-20 (of which AUD 58 billion will be generated by LNG and oil). Furthermore, the resources sector represents almost 20% of the Australian Stock Exchange market by capitalisation, and almost one-third of all firms listed. The sector was estimated to employ only about 2% of the labour force in 2010 (Scott-Kemmis, 2011).

4. Australia is also home to some of the world's biggest mining firms. In 2014, among the top 10 global mining giants, three of them were Australian. BHP Billiton is one of the world's largest and most diverse mining firms. Its Australian operations include iron ore, nickel, coal, copper and petroleum. The British-Australian multinational Rio Tinto is the world's third largest miner, with the second largest iron-ore assets in the world, as well as large exploitations of coal, copper, aluminium, diamond and uranium; Fortescue Metal Group boasts large iron ore operations globally.

5. Australia is not just a producer and exporter of raw materials. It is one of the world's most important suppliers of mining equipment, technology and services (METS). It is estimated that at least 60% of the world's mines operate with Australian-made and designed software.¹ The METS sector provides specialized equipment for extraction and processing, highly sophisticated technology and expert services such as engineering, mapping and geological analysis. The sector has grown five-fold in the past 15 years. The METS sector now makes up nearly 7% of GDP and employs nearly 7% of Australian labour force, far more than the mining sector itself. The sector leverages Australia's comparative advantage in mining and has experienced particularly strong growth in part because service activities in the sector are best provided by outsourced, specialised suppliers rather than in-house at each mining location or at the mining firm level.

General mineral policy orientations in Australia

6. Before considering Australia's legal mining framework, it is important to understand the overall policy parameters governing the country's approach to the mining sector. The desirability of using local goods and services are promoted, although this is not a condition of project approvals. Additionally, Australia aims to maintain the competitiveness of its world-class and technologically advanced suppliers, in particular in the METS sector. Numerous government policies help to maintain the country's competitive edge and to foster the expansion of Australian firms abroad. Lastly, given that the country is also home to global mining giants, Australia uses its economic diplomacy to advance the national interests of its mining sector abroad.

Policy orientation regarding mineral extraction and related activities

7. The mining sector is regulated in Australia by a complex and wide-ranging web of policy measures and legislations that govern various aspects of the development of the sector, from exploration to closure. The system is implemented at different levels of government, primarily at the level of the State and the Territory. Legal frameworks are combined with a variety of other policy instruments ranging from policies to encourage the participation by Australian firms within *inter alia* the resource and energy sectors, both in domestic projects and in overseas ventures, to information-sharing initiatives, to industry and firm-level support.

8. The overarching policy frameworks relevant to local content,² developed at the **Commonwealth (Federal) level** are:

1. The *Australian Industry Participation National Framework* (AIP National Framework), signed in 2001, by the Commonwealth Government, State and Territory Ministers;
2. The *Australia Jobs Act 2013*, which requires all major projects with a capital expenditure of AUD 500 million or more to prepare and implement an Australian Industry Participation (AIP) plan (the AUD 500 million threshold is a Commonwealth-level requirement, complemented in

¹ Source: <http://www.thisisourstory.com.au/our-contribution.aspx#mineral-wealth>.

² Within the system, some programmes are implemented on a cross-cutting basis for all industries under the overall framework of advancing Australian "industry participation" (following from local content initiatives in the 1980s and 1990 in a range of sectors, including for example the automotive industry). Programmes have also been specifically tailored to the resource sector, both the mining industry and increasingly LNG projects (although the latter is not the focus of this paper). Furthermore, the federal (Commonwealth) system of government means that initiatives may be decided and funded at the Commonwealth level, implemented at the state level alongside specific initiatives, and monitored at the State and local level.

some states by additional scenarios where Local Industry Participation plans are required). No specific local employment and procurement targets are prescribed. Executive summaries of AIP plans are publicly available.

9. In addition, each **State and Territory** has the authority to regulate its own mining regime. In this context, each State has enacted specific legislations to provide the legal and administrative framework to regulate the sector. Whilst State legislations are not uniform in this area, each jurisdiction however adopts similar regulatory approaches. In broad terms, mining activities in each State are regulated by:

- a) *Mining Acts*, which enable the States to grant licences and/or mining leases over a defined area; and
- b) *State Agreements*, developed for particular large extractive projects, between the State Government and the "developer". State Agreements set out the rights and obligations of both parties throughout the life of a significant development project. These may include, among others, obligations for the miner to include a requirement to submit detailed development proposals including how they intend to source goods and services from local suppliers and employ local workforce.
- c) *Indigenous Land Use Agreements (ILUA)*, entered between people who hold Native Title over a particular area and a mining developer. These agreements sometimes contain very specific local content provisions, such as obligations to partner or enter into joint ventures with Aboriginal people, employment and training requirements.

10. Furthermore, various States have developed **voluntary codes of conduct** with mining firms. These include elements to improve the relationship with the local community (in many cases Aboriginal communities) through enhanced business opportunities, training and employment opportunities. These have given rise to a series of bilateral agreements that firms have negotiated with Aboriginal communities.

11. To complement firms' efforts to source locally, a number of programmes have been designed to provide information and assistance to supplier firms to enable them to submit competitive bids for project tenders. The latter is achieved through (i) providing assistance to suppliers to build capability, and (ii) government-supported facilitation and networks that link suppliers to specific tendering opportunities.

Policy orientation regarding the competitiveness of Australian suppliers of mining equipment, technology and services (METS)

12. Australia is considered to be a global hub for various activities such as exploration mining production, research and innovation. The country has managed to create a dynamic "minerals innovation complex" based on close ties between mining related research and innovation organisations and mining sites, both in Australia, and increasingly abroad.

13. The emergence and growth of the METS sector came out of the combination of technical challenges faced by mining firms operating in specific and difficult conditions and the capabilities of Australian firms to develop solutions to address these challenges. It is worth noting that most METS firms were developed by entrepreneurs with engineering or technical training and prior experience in mining or mining related industries, rather than from academic institutions or research centres, although the latter play a key role to support businesses.

14. The drive for METS came from the mining sector itself. Australia's mining industry invests significantly in research and development (R&D), with the sector injecting AUD 3.8 billion annually (Australia Trade Commission, 2015). Similarly, Australia has sought to align its education system to the

needs of the mining industry, where partnerships and links play a determining role. Various college and university programmes are sponsored to offer practical, relevant industry skills across a wide range of disciplines.

15. Recently, the Australian Government set up Industry Growth Centres to target six specific growth sectors of the Australian economy, one of which is METS. The Australian Government is providing AUD 250 million over four years starting in 2016/17.³ The purpose is fourfold:

- To identify regulations that are unnecessary or overly burdensome and suggest possible reforms;
- Improve engagement between research and industry;
- Facilitate access to global supply chains; and
- Improve the management and workforce skills in the key growth sectors.

16. A growth centre for the METS sector called METS Ignited was launched in 2015.⁴ It is an industry-led but government-funded initiative which is expected to boost the METS industry to become a key contributor to increase prosperity and jobs. The programme will build on existing successes of the METS industry and will capitalise on the high quality research in the country.

Overview of Regulatory frameworks applicable in Australia

17. This section highlights in detail the key regulatory frameworks that apply to the mining industry but also are relevant to the METS sector.

Regulatory frameworks developed at the Commonwealth (national) level

Australian Industry Participation (AIP) National Framework

18. As mentioned, at the Commonwealth level the overall policy with respect to Australian industry participation is set out in the Australian Industry Participation National Framework (2001), which aims to create a "*nationally consistent approach to maximising Australian industry participation in investment projects, whether involving the private or public sector*".⁵

19. The framework elaborated the key principles for the national approach, including the overarching principle that project proponents are encouraged to maximise Australian industry participation in investment projects by providing industry "full, fair and reasonable opportunities" to participate or bid for the supply of goods and services.⁶

³ <http://www.industry.gov.au/industry/Industry-Growth-Centres/Pages/default.aspx>.

⁴ See speech delivered by Hon. Josh Frydenberg, Minister for Resources, Energy and Northern Australia. 12 November 2015, <http://www.minister.industry.gov.au/ministers/frydenberg/speeches/mining-and-australian-economy-australian-governments-priorities-mining>

⁵ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/Pages/default.aspx>.

⁶ *Full* means that the Australian industry has the same opportunity as afforded to other global supply chain partners to participate in all aspects of an investment project (e.g. design, engineering, project management, professional services, IT architecture); *Fair* means the Australian industry is provided the same opportunity as global suppliers to compete on investment projects on an equal and transparent basis, including being given

20. From 2011 to 2014, a new package of Commonwealth-level initiatives under the AIP framework was in place, including those specifically or primarily focused on the resource and energy sectors. Between 2011 and 2014, the "Buy Australia at Home and Abroad" programme specifically targeted the mineral and energy resource sector and contained a number of commonwealth funded sub-programmes including the Resources Sector Supplier Advisory Forum and Resources Sector Supplier Envoy, Supplier Advocates in the resources sector, Enterprise Connect resource focused services, and additional support for the Australian Made Campaign Limited.

Specific LCP-related Programmes implemented in recent years under the AIP

21. Some of the key programmes relating to local content that have been implemented in recent years under the AIP include:

- a) The Supplier Access to Major Projects⁷ (SAMP), which started in 1997 and "provides funds to work with project developers to identify supply opportunities for capable and competitive Australian firms. In 2011, SAMP was extended to SAMP (Resources) as part of the Buy Australia at Home and Abroad programmes. Commonwealth funds are provided to the Industry Capability Network Limited⁸ (ICNL), to coordinate the Industry Capability Network⁹ (ICN), a network of organisations, funded privately or by State and Territory Governments, , that help facilitate linkages between Australian and New Zealand firms to the supply chains of major projects. SAMP seeks to increase opportunities for Australian industry, especially small and medium enterprises (SMEs) to participate in major projects and increase access to global markets. ICN have estimated that since the inception of SAMP, more than AUD 18.5 million has been provided to support 162 projects, through which Australian firms have won contracts valued at more than AUD 4 billion for work that could have gone to overseas competitors.¹⁰ This programme specifically targeted the mineral and energy resource sector and created an institutional structure aimed at linking supplier firms to major resource projects. A Resources Sector Supplier Envoy was appointed as a high-level spokesperson for the supplier industry and, according to a 2014 review of the programme worked with a broader Resources Sector Supplier Advisory Forum "to raise awareness among project developers and their international agents of the benefit in considering Australian firms within their major projects". Funding for the scheme was discontinued in the budget of that year.
- b) Enhanced Project By-Law Scheme (EPBS),¹¹ was implemented from 2002 until 3 May 2016 whereby duty-free tariff concessions are granted for eligible goods such as machinery, equipment and their components, imported for use in mining and other selected industries for large projects that have developed and implemented an approved AIP plan that "demonstrates how the project will provide full, fair and reasonable opportunity to Australian industry (especially small and

reasonable time in which to tender; and *Reasonable* means tenders are free from non-market burdens that might rule out Australian industry and are structured in such a way as to provide Australian industries the opportunity to participate in investment projects. See AIP National Framework, section 3.

⁷ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/Pages/IndustryCapabilityNetworkLimited.aspx>

⁸ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/Pages/SupplierAccessToMajorProjects.aspx>

⁹ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/Pages/SupplierAccessToMajorProjects.aspx>

¹⁰ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/SupplierAdvocates/Pages/Review-of-Buy-Australian-at-Home-and-Abroad-%E2%80%93-June-2014.aspx>

¹¹ <http://www.industry.gov.au/industry/IndustryInitiatives/AustralianIndustryParticipation/Pages/EnhancedProjectBy-lawScheme.aspx>

medium enterprises) to supply goods and services to the project". Eligible goods are those for which equivalent goods are not produced in Australia or the imported goods are more technologically advanced, more efficient or more productive than those produced in Australia (Australian Government, Dept. of Industry and Science, 2015).¹² No new applications for duty-free imports have been considered since 3 May 2016.

The Australian Jobs Act 2013

22. The Australian Jobs Act 2013 requires public and private major projects in Australia with a capital expenditure of AUD 500 million or more to prepare and implement an Australian Industry Participation (AIP) plan (CCSI, 2015). The Act specifically highlights that:

- a) Australian firms should have full, fair and reasonable opportunity to bid for the supply of goods and services for the project;
- b) Firms must ensure that they have a broad understanding of the capacity and capability of Australian entities to supply goods and services;
- c) Standards for key goods and services needed for the project that are to be acquired by the firm are published, as well as expectations in relation to these goods and services;
- d) Firms conduct awareness campaigns about key procurement opportunities for Australian suppliers;
- e) Firms conduct training programmes for employees of procurement entities for the project, directed towards understanding AIP objectives and outcomes; and
- f) Encourage Australian suppliers to integrate and develop their capability to supply goods and services to global supply chains.

Specific agreements developed at State level

23. As mentioned, mining developers operating projects that have a bearing on the economy of the State are governed by State Agreements¹³ and those that are found on Indigenous land, by Indigenous Land Use Agreements, which are negotiated on specific terms with the State Government and Indigenous population respectively.

State Agreements

24. A State Agreement is a contract between a State Government and a project developer that specifies the rights, obligations and terms and conditions for the development of a specific project, which must be implemented for the duration of the agreement. Some State Agreements require that an industry participation plan be developed and implemented. A State Agreement may also contain a provision for use of local labour, professional services and materials. Typically it will contain the proviso "*as far as is reasonably and economically practicable*" or "*except where it can be demonstrated that it is impracticable to do so*".

¹² As of 3 May 2016, the EPBS is closed to new applications.

¹³ While State Agreements enable mining companies to obtain certain concessions that may derogate certain obligations of State laws, they cannot overwrite a Commonwealth Act.

25. Agreements with local content obligations also require firms to submit local content reports to demonstrate sourcing decisions. The frequency of reporting required can vary from monthly, quarterly, half-yearly to "*when requested*".

26. Table 1 below highlights some examples of specific obligations relevant to local content that can be found in certain State Agreements.

Table 1. Examples of local procurement and employment requirements

Parties to the Agreement	Specifics
Copper Mines of Tasmania Pty Limited, Act of 1999 (Tasmania)	<p>The Act includes provisions to encourage the use of Tasmanian services and products. This includes the use of services of "<i>workers, engineers, surveyors professional consultants including lawyers and accountants and contractors</i>" resident in or available within the State of Tasmania;</p> <p>Local suppliers, manufacturers and contractors are to be given reasonable opportunity to tender or quote for supply contracts. There is no obligation to use local services and products unless price, quality, experience, delivery and service offered are 'no less favourable' than those obtained from sources outside Tasmania.</p>
Merlin Project Agreement Ratification Act. 2000. Northern Territory (NT)	<p>The Act includes provisions to encourage the use of local professional services, labour and materials. The firm must use its 'best endeavours' to give local services suppliers a reasonable opportunity to tender or quote, give preference to Northern Territory (NT) workers with suitable qualifications, skills and experience and to service providers where price, quality, delivery, service and compliance with safety and environmental requirements are equal or better than can be found elsewhere. Firms are requested to consult the NT Industry Search and Opportunities Office.</p> <p>Reporting requirements assess the level of local participation, including a report to the Minister upon request (no more than annually) on:</p> <ul style="list-style-type: none"> • Expenditure on local service providers and labour as a percentage of total; • Details of local providers of goods and services to projects; • Proof of consultation with the NT Industry Search and Opportunities Office and the extent to which advice has been followed; • Reasons for sourcing labour and services from outside the NT and opportunities given for local services to bid for such services.
McArthur River Project Agreement-Ratification Act. 2007. Northern Territory (NT)	<p>The Act includes provisions to encourage the use of and give preference to local professional services, labour and materials, except if they can reasonably demonstrate that it is impractical for commercial, technical or other reasons to do so. Firms may be requested to report on the implementation of the provisions.</p>
Iron Ore Yandicoogina Agreement Act. 1996. Western Australia (WA)	<p>The Act includes provisions to encourage the use of local professional services, labour and materials. Firms shall source labour available within WA, using all reasonable endeavours to ensure that as many workers and contractors are recruited from Pilbara region, unless it can be demonstrated that it is impractical to do so.</p> <p>There is also an Agreement with the Aboriginal community that requires firms to produce and implement a local participation plan and to provide training and employment to the community.</p>

Source: Fitzgerald, 2001; Esteves et al., 2010; Natural Resource Centre.

Indigenous participation agreements

27. In Australia, many mining projects occur in remote areas, where a large majority of Aboriginal peoples live. Despite their presence, their participation in the mining industry has in the past been generally very low. Over time however, demand increased for more inclusive mining development to prevent social tensions. This led to tripartite agreements between governments, mining firms and local communities and to the creation of benefits-sharing mechanisms.

28. To address this imbalance, most Indigenous land use agreements (ILUAs) contain contractual obligations and partnerships between the Indigenous communities and mining firms to provide

employment and training, including enterprise support and development, to increase business and job opportunities for the local Aboriginal community.¹⁴

Table 2. Examples of requirements for Indigenous content

Parties to the Agreement	Type of requirements
Rio Tinto Argyle Diamond Mine, and Traditional Owners, Western Australia	<p>"Local" is defined as originating from the East Kimberley Region. The firm must notify the business development task force (comprising Indigenous Owners and firm representatives) of its intent to open any contract exceeding AUD 250 000 in a year, relating to the provision of goods or services to Argyle at the mine</p> <p>The firm commits to giving preference to tenderers that bring the greatest opportunities to Indigenous Owners. To that effect, the tenderer is required to show how it intends to involve Indigenous owned businesses in the contract, how it will employ and/or train Indigenous Owners, and how it will provide benefits to Traditional Owners.</p>
Century Mine, Queensland Government and the four native groups of Waanyi, Mingginda, Gkuthaarn and Kukatj	The firm is requested to facilitate support to provide tenderers with information on business set-up requirements and ongoing business management (e.g. preparation of payroll, training, health, safety and environment procedures, and human resources policy).

Source: Acyl Consulting, 2001; Esteves et al., 2010.

Private-public partnerships

29. Besides obligations and commitments found in various legislative instruments, a number of initiatives aim to increase access to opportunities for suppliers and workers. These are generally not specific to the mining sector and offer support, including financial support, to local industry, in particular small businesses. Examples (Esteves et al., 2010) include:

1. The Indigenous Capital Assistance Scheme (ICAS), offered by the Commonwealth Government to Indigenous businesses in order to access commercial finance as well as professional and mentoring support services. Loans, ranging from AUD 20 000 to AUD 500 000 over three years are provided, supported by business advisory and mentoring support services.
2. Industry Capability Network Limited (ICNL), supported by the Commonwealth Department of Industry, Innovation and Science to facilitate linkages between Australian firms and local and global supply opportunities and to identify the capabilities of local industry. The network is connected to a database of Original Equipment Manufacturers (OEMs) and SMEs for various types of projects.
3. The New Enterprise Incentive Scheme (NEIS), provided by the Commonwealth Government, offers business advice and mentoring to individuals who want to establish a business with accredited small business training, as well as income support for up to one year.

¹⁴ The prime objective of ILUAs is broader than providing business opportunities. It is a voluntary agreement between a Native Title group and a mining firm over issues relating to the Native Title. The ILUAs can cover topics such as native title holders agreeing to a future development; how native title rights coexist with the rights of others; access to an area; extinguishment of native title rights and interests; compensation; employment and economic opportunities for native title groups; and Indigenous cultural heritage management and protection.

Providing support and developing alliances and partnerships with local communities

30. In addition to regulatory measures, a number of firms have embarked onto *voluntary initiatives* to scale up the use of local factors of production and to work with local suppliers.

31. An interesting initiative is the BMA Local Buying Programme,¹⁵ established jointly by BHP Billiton and Mitsubishi Development Limited in 2001 in the State of Queensland. The Programme is targeted to specific local communities to increase their participation in supply and procurement processes.¹⁶ It is targeted to small businesses with less than 25 full-time employees. The Programme has established a partnership with Community Resourcing (C-RES), to monitor the programme's deliverables and to ensure coordination with local suppliers.

32. Other private led initiatives include adapting procurement systems to make them more accessible to local Aboriginal peoples. Rio Tinto Argyle Diamond Mine, in Kimberley in Western Australia for instance, has a system in place to disseminate expression of interest forms to Traditional Owner organizations to inform the local population of opportunities. The firm also offers a longer notification period to Traditional Owner groups beyond the three months specified in the agreement to prepare their participation in the tender (Estevez, Coyne and Moreno, 2013).

33. In addition, a plan was developed between the mining firm and the Indigenous Australians regarding cooperation and implementation of the agreement. Two trust funds were created to provide financial support to local projects, in particular to partner with the community and help them build economic independence and to support education and training. While there is little empirical evaluation of the effects of the initiatives under this ILUA, it is estimated that around 65% of the work force come from the region, and around 25% originates from the Indigenous community. The agreement seemed to have been able to increase the employability and the mobility of the local population (Soderholm and Svahn, 2014).

34. Another example of ILUA is the agreement signed in 2001 between the Weipa bauxite mine (Rio Tinto Alcan), the Aboriginal community, four Shire Councils, the Queensland state government and the Cape York Land Council. The Agreement led to the creation of the Western Cape Communities Trust (WCCT), which lays emphasis on local capacity building and business development. The mining firm has also committed to undertake various employment, training and infrastructure initiatives (Soderholm and Svahn, 2014).

35. In the same vein, the region of the Pilbara, Rio Tinto, BHP Billiton and other mining firms provide specific support to local business development. While Rio Tinto supports local businesses to overcome the challenges they face in meeting procurement requirements, BHP Billiton provides assistance through consultancy firms, to assist local businesses to prepare their bids. They also help local businesses manage risk and with their financial audits (Estevez, Coyne and Moreno, 2013).

¹⁵ See <https://c-res.com.au/>

¹⁶ The eligible communities in the Bowen Basin are Blackwater, Capella, Dysart, Emerald, Moranbah and Nebo.

Table 3. Summary of LCPs applicable in Australia

Type of Requirements	Details of requirements	Applicability in Australia	Relevant legal frameworks
Legal requirements to give preference without specifying targets			
Labour requirements	Provisions to encourage employment of local labour	Firms are encouraged to employ local labour (sometimes specific professional categories are identified)	State Agreements ILUAs
Local procurement	Sourcing of goods and services	Firms need to ensure full, fair and reasonable access to opportunities for local suppliers Firms need to ensure that their local contractors given local service suppliers opportunity to tender	Jobs Act AIP State Agreements
Information sharing	Firms are required to publish information on their website and in the press	Firms are required to consult local databases and to publish job vacancies and tenders on their websites	State Agreements; ILUAs
Capacity building and training	Training and capacity building for Indigenous workforce and for local suppliers	Firms are encouraged to provide training to labour and suppliers (for Aboriginal communities)	ILUA State Agreements
Reporting and justification	Requirement to report on implementation of various local content provisions.	All applicable projects, including in mining, must develop an Australian Industry Participation plan which details how they will give Australian entities a 'full, fair and reasonable' opportunity to participate in the supply of goods and services. In some State Agreements, firms must report on expenditure on local service suppliers and labour as % of total; name and number of local service providers; proof of consultation of existing suppliers' databases; reasons for sourcing labour and suppliers outside and opportunities given to locals.	Australian Jobs Act 2013; State-level legislation and policies

Source: Jobs Act, various State Agreements and ILUAs.

Results of some local content initiatives

36. One of the key features of the Australian approach is that from its inception it was oriented towards monitoring measurable and meaningful outcomes, most notably in terms of dollar figures for contracts awarded to local firms and number of jobs created. Indeed, one of the main obligations on firms is to report regularly on their prepared AIP plans. There are also further resources dedicated at the state level to monitoring contract announcements, and collating and providing that information to firms and the public. For example in Western Australia, the state's 2014 Local Content Report stated that:

"ongoing monitoring of publicly announced, locally awarded, resource sector contracts show approximately AUD 60 billion has been allocated since July 2011. As recorded in previous Parliamentary reports, these contracts have included a diverse range of activities encompassing both manufacturing and service industries. [...] it is estimated that this flow of contracts has resulted in the maintenance or creation of approximately 213 600 positions in the Western Australian economy."

37. In Queensland, the Queensland Resources Council (QRC, 2014) concluded in its annual *Code Effectiveness Report* that for the 2013/14 year, the 46 firms which submitted data together employed 44 000 staff and procured AUD 42.5 billion in goods and services which consisted of:

- AUD 29 billion or 68% purchased from vendors located in Queensland (compared to AUD 30.8 billion purchased in 2012-13, AUD 30.9 billion achieved in 2011-12, AUD 20.8 billion achieved in 2010-11 and AUD 18.8 billion achieved in 2009-10).

- AUD 1.9 billion or 4% procured from vendors located outside of Australia and New Zealand. This compares to 5% in 2012-13.
- an additional AUD 2.2 billion was procured from vendors outside of Queensland from an unassigned location due to insufficient detail in the data provided.

38. In addition the report estimates that through additional workers and flow-on purchases the industry supported 442 000 indirect jobs and stimulated an additional flow on spend of AUD 40.1 billion in the Queensland economy. This resulted in a total economic contribution of the resources sector of approximately AUD 75.6 billion in 2013/14, equating to 1 in 5 Queensland jobs and 1 in 4 dollars generated by the regional economy (QRC 2014).

Main properties

39. Local content policies in the mining sector are defined at the national level as well as the State level in Australia, which allows for tailor-made requirements negotiated with firms through State Agreements. The stated policy objective is to 'encourage full, fair and reasonable opportunities for local suppliers' to compete for work in major public and private projects in Australia. Some key elements of the Australian experience can be summarized as follows:

- The centrally-driven and cross-industry approach to encouraging local content created a framework that had a high degree of national consistency and clear focus and defined goals. This in turn allowed for a coherent broader industrial policy, resulting in pooling of funding and expertise to support different sectors. There was a clear regulatory framework for proponent firms to comply with, focused around development and reporting on AIP plans.
- At the same time, there was a degree of flexibility in implementation: the national framework and objectives delivered general support programmes, alongside programmes or responses that are tailored at the state and lower levels to particular regions, industries or even specific local projects (through local AIP plans).
- There was a clear focus on supporting supplier firms at a crucial point in the supply chain--the contract tendering process, alongside strong reporting mechanisms where firms justify why they were not successful in recruiting or using local suppliers, in case they did not use local factors of production. Reporting requirements came out quite strongly in many State Agreements reviewed, pointing to the fact that, despite no numerical targets having been set, firms had to demonstrate the efforts made to procure locally.
- There was a "hands-on" approach to bring suppliers to a position where they were informed and could compete in industry tenders, alongside a relatively soft requirement for firms to ensure transparency in implementing the "fair, full and reasonable" principles. By making participation the central principle, the focus was not on placing heavy requirements on mining firms to meet legislative obligations (although reporting requirements *de facto* led to that), but instead on addressing the constraints facing supplier firms in participating in projects.
- Fifth, there was strong collaboration and a degree of fluidity between government and private sector entities, notably in the provision of information, and in the area of intermediation and fostering business-to-business linkages. This was achieved through creating an appropriate set of institutions, with clear roles, under a common purpose.
- The monitoring of outcomes was built into the policies from the start, with the requirement that the Commonwealth Department of Industry, Innovation and Science publish executive summaries of

AIP plans and produce regular reports on them. Such monitoring provides a high degree of public accountability regarding performance, and also informs further improvements to policies over time.

- There was an outward-looking approach that sought to build on partnerships between firms and governments forged domestically, to seek opportunities globally (for example on a number of government-led mining delegations to Chile), and thus potentially multiply the benefits.

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THE CASE OF CANADA

40. Similarly to Australia, the mining sector is of key importance to the Canadian economy. Canada is one of the largest mining countries in the world, producing more than 60 minerals including 26 metals, 22 non-metals and 5 industrial mineral commodities from about 250 mines and 3 000 stone, sand and gravel operations.¹⁷

41. Like Australia, Canada's key interests in the mining sector stretch from the exploitation of its vast mineral endowments, to the development of its suppliers' network, which lie at the cutting edge of technological innovation. Internationally, Canada is a major leading mining country, which is home to a large number of global giants and hosts numerous other mining firms that are headquartered in its financial hub.

Overview of the Mining Sector¹⁸

42. The mining industry is a major player in Canada's economy and contributes nearly 5% of the country's GDP. The industry employed about 380 000 workers in various parts of the value chain, from extraction down to manufacturing, often in remote communities, including 10 000 Indigenous peoples (MAC, 2014).

43. In 2013, the mining sector accounted for close to 20% of the country's total exports. In 2013, Canada ranked among the top five global producers of 11 major minerals and metals. It ranks first in potash, second in uranium and cobalt, third in aluminium and tungsten, fourth in platinum group metals, sulphur and titanium and fifth in nickel and diamonds. It is also a major producer of gold, silver, zinc, copper, molybdenum and cadmium (MAC, 2014).

44. The contribution of the mining sector is essential in many territories and in particular for local communities. It is estimated that proportionally, the industry is the largest private sector employer of Indigenous peoples (MAC, 2014). Besides, the sector is of key importance to the economies of large cities: for instance, Toronto is the global hub for mining finance. In 2013, the Toronto Stock Exchange (TSX) and TSX Venture Exchange accounted for 57% of the world's publicly-listed mining firms and together, the two exchanges handled 48% of global mining equity transactions and 46% of global mining equity capital (MAC, 2014). Similarly, Vancouver is home to the world's leading cluster of exploration firms, while Montreal hosts major aluminium and iron ore firms.

¹⁷ Canada has been mining for more than 150 years. Prior to the 1870s nearly all mineral deposits in Canada were found accidentally by individuals. The discovery of gold in British Columbia in 1859 and in Nova Scotia in 1860, led to more systematic gold and base metal prospecting in British Columbia, the Yukon Territory and Nova Scotia. New deposits were found as exploration efforts spread across the country: nickel in Sudbury (1883), lead-zinc at Sullivan, B.C. in 1893, silver at Cobalt (1903), gold in Timmins in 1909 and Kirkland Lake in 1911, and base metals at Noranda in 1920.

¹⁸ Information primarily drawn from IWGMI (2014).

45. Mining and its related industries are significant contributors to the budgets of federal, provincial and territorial territories, due to significant taxes and royalties revenues and to the salaries paid to mining workers that largely exceed those of other sectors.

The overall regulatory framework in Canada

46. Canada is a Federal state with 10 Provinces and three Territories, each with its own government. As per the Canadian Constitution,¹⁹ the regulation of mining activities on publicly owned mineral leases falls under provincial/territorial government jurisdiction.²⁰ Thus, there is separate mining rights legislation for each of the 13 Canadian jurisdictions except Nunavut where the federal department of Aboriginal Affairs and Northern Development currently retains authority.

47. The federal government of Canada has exclusive jurisdiction over some matters that indirectly affect mining, such as foreign investment and export controls. Otherwise, except for uranium, each province has exclusive power over mineral exploration, development, conservation and management. However, the governments of Canada and the provinces share jurisdiction over a number of areas, including the environment and taxation.

48. The Constitution Act 1982 recognises and affirms the existing Aboriginal and Treaty rights of the Indigenous peoples of Canada, which include the First Nations (Indian), Inuit and Metis people of Canada. In this regard, federal and provincial governments have a general duty to consult any Indigenous group whose asserted or established Aboriginal and Treaty rights may be affected by a governmental decision, including the grant of permits or licences relating to mining activity.²¹

Box 1. Overview of regulations relevant to the mining sector in Canada

The Constitution Act, 1867: In the Canadian Constitution, the regulation of mining activities on publicly owned mineral leases falls under provincial/territorial government jurisdiction.

The Atomic Energy Control Act, 1946: The production, refinement and treatment of uranium and related substances are subject to the regulatory authority of the federal Canadian Nuclear Safety Commission (CNSC).

Fisheries Act (1985) and Canada Water Act (1985): Where mining impact on fish habitat is unavoidable, a Fisheries Act Authorization is required.

Canadian Environmental Assessment Act (1992): Mining projects are screened from an environmental standpoint by the Federal Environmental Assessment Index before production begins. Amendments to the Canadian Environmental Assessment Act, 2003 led to the creation of the Canadian Environmental Assessment Registry to inform and monitor environmental assessments.

The Minerals and Metals Policy of the Government of Canada – Partnership for sustainable development, 1996: It describes, within areas of federal jurisdiction, the government's role, objectives and strategies for the sustainable development of mineral and metal resources. The document also covers international trade and investment, science and technology, environmental protection, and Indigenous affairs.

Income Tax Act, Investment Tax Credit for Exploration, 2001: Meant to assist junior mining firms in raising new equity finance through the issuance of flow-through shares to help exploration firms maintain, or increase, their

¹⁹ <http://www.nrcan.gc.ca/mining-materials/policy/legislation-regulations/8726>.

²⁰ The mineral rights on more than 90% of Canada's land are currently owned by governments and can be leased to individuals and companies. The remainder is privately owned by virtue of being purchased prior to reforms in the early 1900s.

²¹ The duty to consult "arises when the Crown has knowledge, real or constructive, of the potential existence of the Aboriginal right or title and contemplates conduct that might adversely affect it".

level of exploration activities with a view to stimulating investment in mineral exploration throughout Canada.

National Instrument 43-101: This is the national instrument for the Standards of Disclosure for Mineral Projects within Canada. The Instrument is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned or explored by firms which report these results on stock exchanges within Canada.

Provincial Laws:

There is separate mining rights legislation for each of the thirteen Canadian jurisdictions (except for Nunavut). In each province, the legislature may exclusively make laws in relation to the exploration for non-renewable natural resources in the province; the development, conservation and management of non-renewable natural resources in the province, including laws in relation to the rate of primary production there from and environmental, workplace safety, and labour purposes that has an impact on mining activities. Provincial laws usually contain a:

- a. Mines Act
- b. Mineral Tax Act
- c. Mineral Land Tax Act
- d. Mineral Tenure Act; and
- e. Workplace Safety and Health Act

Source: *The Mining Law Review* (2014).

Local Content Requirements and Initiatives

49. The Canadian approach to support the creation of opportunities has evolved over the 150 years that the country has been involved in mineral exploitation. Canada's mining industry assets are comprised of international exploration firms, large multinational mining firms involved in various parts of the value chain and a large number of world class suppliers of goods and services that are highly integrated globally. Today, the main policy objectives are threefold:

- First, to continue to remain competitive and at the forefront of the mining business (exploration, development, supply of goods and services, etc). In this regard, the priority focus is on incentives to foster science, technology and innovation.
- Second, to maximize benefits from its own mineral resources. The Canadian sub-soil is very rich and mining activities are generally conducted in remote areas. Canada aims to ensure that the local, often Indigenous, populations that live close to the mines derive the maximum economic benefits and minimize the potential negative impacts. For this reason, some provinces have put in place specific policies that fit the socio-economic realities of their regions.²²
- Third, to support its mining firms and service providers in extending their global footprint and accessing markets abroad.

Regulatory Frameworks

50. In general, Canada maintains few formal, specific requirements within its federal legislation aimed at encouraging greater local content in mining. More specific requirements are found in provincial legislations and specific mining agreements signed with Indigenous communities (such as the Impact and Benefits Agreements (IBAs).

²² It should be noted that the government of Canada does not consider these policies to be local content policies per se. They have been included in this survey as they aim to increase the participation of a subset of the population that are locally based.

51. At the *Federal level*, Canada's overall policy stance towards the mining sector is laid out in a detailed Minerals and Metals (MMR) Policy.²³ The policy highlights the contribution that mining makes to the Federal government's agenda in three areas:

- Promoting economic growth and job creation
- Furthering an efficient and effective federal union';
- Meeting the challenge of sustainable development.

52. The policy lays out the broad regulatory framework – notably with respect to defining the roles and responsibilities of Federal and provincial governments – and defines the role of the state in attracting investment and creating a conducive business environment, as well as the role and limits of regulation. In addition the policy emphasises three particular overarching issues where policy has a role to play:

- Environmental management of mining activities;
- Promoting the involvement of Indigenous communities in mining;
- Providing international leadership for sustainable development in mining.

53. While the policy does not explicitly mention local content, Section V concerning Indigenous communities, specifically encourages First Nations' involvement in mining projects, in particular through their participation in economic opportunities.

54. Federal-level legislation does place some general requirements on overseas mining firms investing in Canada, most notably within the Investment Canada Act, under which large foreign investments or acquisitions must undergo a review and approval process to determine if they create a "net benefit" to Canada, based on factors including:

- The effect of the investment on the level and nature of economic activity in Canada including employment; resource processing; utilisation of parts, components and services produced in Canada; and exports from Canada.
- The degree and significance of participation by Canadians in the existing and proposed businesses.
- The compatibility of the proposed acquisition with national and provincial industrial, economic and cultural policies.

55. It is observed that factors such as continued employment and the infusion of capital by the investor are particularly important to meet the "net benefit" test. Conversely, plans to downsize following a merger can be impediments to achieving approval for the investment (Baldwin and Fipke, 2010).

56. In addition, in order to obtain the Minister's approval for a transaction, the investor often needs to negotiate a set of commitments in the form of undertakings, which may even be valid for three years after the closing of the transaction (Deyholos and Cuschieri, 2013). Such commitments may, among other things:

- Oblige the investor to keep the head office of the Canadian business in Canada;

²³ <http://www.nrcan.gc.ca/mining-materials/policy/bulletin/8700>.

- Ensure that a majority of senior management of the Canadian business is composed of Canadians;
- Maintain certain employment levels;
- Make specified capital expenditures and conduct research and development activities based on specified budgets; and
- Make a certain level of charitable contributions.

57. Beyond the Investment Canada Act, some federal legislations require firms to hire locally. The Business Corporations Act stipulates that at least 25% of the directors must be Canadian residents. The Immigration Act states that employment opportunities in Canada belong first to Canadian citizens and to permanent residents of Canada; general restrictions or work permit requirements exist for a number of professions.

Incentives

58. Federal and provincial governments offer numerous incentives to firms designed to promote broader policy goals, such as boosting research and development or promoting regional economies. These incentives are not specific to the mining sector but apply to all sectors of the economy. Funds are available to any qualified Canadian or foreign investor provided they meet certain conditions. Firms can access funds through Export Development Canada on the condition that there is a regional product mandate for the product to be produced specific conditions.

59. The MMR Policy emphasises private-sector innovation through the federal Scientific Research and Experimental Development (SR&ED) programme. This is implemented through specific provincial tax incentives and various support programmes for innovation in SMEs. Individual provinces also provide incentives for firms to relocate their R&D efforts. The Canadian Centre for Clean Coal/Carbon and Mineral Processing Technologies in Alberta is a research and education centre that supports sustainable and responsible energy and mineral development. Quebec is home to a fast-growing aluminium-processing sector.

60. At the Provincial level, there is a range of incentive programmes and services to attract foreign investment. For instance, the Province of Quebec officially launched its Plan Nord (Northern Plan) in April 2015, which is a 20-year sustainable development investment initiative that is intended to harness the economic, mineral, energy, and tourism potential of the Province. A company has been created (*Société du Plan Nord*) to attract investors and work with local communities to implement the plan and incentives will be given subject to meeting the objectives of the Plan.

61. Most provincial incentives are investor-specific. For example, Ontario's Jobs and Prosperity Fund provides USD 2.5 billion over 10 years to enhance productivity, strengthen innovation and increase exports from the Province. Similarly, Alberta offers firms a 10% refundable provincial tax credit worth up to USD 400 000 annually for scientific research and experimental development encouraging research and development in Alberta as well as Alberta Innovation Vouchers worth USD 15 000 to USD 50 000 to help small early-stage technology and knowledge-driven businesses in Alberta get their ideas and products to market faster (US Department of State, 2015). However, those incentives may also be restricted to firms established in the province or that agree to establish a facility in the province.

Obligation to Consult Indigenous Communities and Initiatives to Support Indigenous Community Participation

62. A key focus of Canada's Mining Policy is to ensure the participation of local Indigenous communities in any mining venture. The focus derives from a Constitutional requirement that the Crown consult with Indigenous communities when Crown conduct may impact asserted or established Aboriginal or Treaty rights. Public Policy Forum (2012) has pointed out the tenuous nature of this legal driver for the policy:

"the Supreme Court of Canada has established the Crown's Duty to Consult with Indigenous communities over development that would impact traditional lands [...] exactly what this duty entails is not always clear. This has led to superficial interpretations, which limits the formation of genuine partnerships. Aboriginal communities are concerned that this duty is not being respected, or that it is merely being implemented as part of a 'check-the-box' approach."

63. Indigenous considerations are therefore given a high priority and are the most prominent local content-type requirements in Canada, even if they clearly affect only a designated tranche of the population, thus reflecting a context-specific definition of "local".²⁴ The Mining and Mineral Policy also "recognizes the desire of Indigenous peoples to be involved in decision-making, and to participate in the economic benefits derived from exploration and development activities" and states that "[t]he federal government provides funding to Indigenous communities to negotiate economic benefit agreements with developers."

64. In terms of the agreements themselves, there appears to be a significant amount of variety with no set model or guidelines for provisions to be included. This is largely because circumstances – such as the land in question – tend to vary from case to case, and "development opportunities are usually tailored to the specific circumstances of the community".²⁵ Agreements signed in the early stages tend to be referred to as Exploration Agreements or Memoranda of Understanding, while more developed agreements include Socio-Economic Agreements or Cooperation Agreements.

Local content in specific agreements: The case of Impact and Benefit Agreements

65. Those most closely associated with local content-type provisions are often known as Impact and Benefit Agreements (IBAs).^{26 27} IBAs are private contracts, so they are, for the most part, confidential.

²⁴ The situation is summarised in Gowling (2015): "Canadian governments have a duty to consult, accommodate and, in some circumstances, obtain the consent of Indigenous communities with respect to projects that may affect their rights or lands. [...] Indigenous groups can challenge government authorizations that allow mining activities if they risk adversely impacting claimed or proven Aboriginal or treaty rights. Although, as a matter of law, the duty of consultation is generally on the applicable level of government and not on the private sector, in practice, project proponents frequently take a lead role in engaging with affected Indigenous communities to try to find common ground for the development of a project. A common feature of such efforts is side-agreements with affected Indigenous communities, which avoid the delays and costs that an Indigenous challenge may otherwise bring."

²⁵ [http://www.miningfacts.org/Communities/What-are-Impact-and-Benefit-Agreements-\(IBAs\)/#sthash.MYvzW6GV.dpuf](http://www.miningfacts.org/Communities/What-are-Impact-and-Benefit-Agreements-(IBAs)/#sthash.MYvzW6GV.dpuf).

²⁶ For the list of know IBAs, see http://www.impactandbenefit.com/IBA_Database_List/.

²⁷ It should be noted that the government of Canada does not consider these policies to be local content policies per se. They have been included in this survey as they aim to increase the participation of a subset of the population that are locally based.

They are dynamic arrangements and the nature of the benefits included in these contracts has significantly evolved over time. Prior to 2005, IBAs focused primarily on benefits relating to jobs, training and procurement opportunities. Since 2005, IBAs have increasingly emphasized economic benefits and financial issues such as royalties and direct payments. According to Fraser Institute (2012) these typically contain:

- **Labour provisions:** Indigenous peoples may be preferentially hired, fulfilling an agreed upon number of Indigenous employees; training for these jobs could also be provided through local classes and apprenticeships or with scholarships and bursaries.
- **Economic development provisions:** Recognition and support of relevant local Indigenous businesses through preferential contracting, as long as said business is cost competitive, efficient and timely; possible partnerships with Indigenous businesses to structure joint initiatives; the creation of a registry of Indigenous businesses to update the firm and monitor Indigenous content to meet preference requirements.
- **Community provisions:** Support and affirmation of Indigenous rights and historic/cultural connection to land; funding for youth, social programmes, community projects and physical infrastructure; facilitation of on-going communication between parties through establishment of committee meetings.
- **Environmental provisions:** Establishment of environmental planning and monitoring committees; reclamation commitments; efforts to minimize activity in culturally sacred areas; recognition that the firm will not apply for more permits after IBA negotiation has finished.
- **Financial provisions:** Monetary compensation arrangements; fixed or variable cash payouts; funding agreements with an established monitoring committee.
- **Commercial provisions:** project certainty through acknowledgement of adequate consultation; dispute resolution and enforcement clauses if either party were to break the contract; and confidentiality.

66. The federal government agency Natural Resources Canada maintains a register of agreements²⁸ and lists more than 200 projects with some type of agreement in provinces across the country: Alberta (1), British Columbia (44), Manitoba (3), New Brunswick (2), Newfoundland and Labrador (4) Northwest Territories (11), Nova Scotia (1), Nunavut (16), Ontario (73), Quebec (19), Saskatchewan (29), and Yukon (18). In some cases a project will have more than one agreement, for example with separate communities, or agreements covering different activities. In some cases agreements have been updated and superseded over time. An analysis done in 2012 showed that approximately one-third of agreements signed up to that point were either IBAs or IBA-like in nature (MIHRC).

²⁸ <https://www.nrcan.gc.ca/mining-materials/aboriginal/14694>

Box 2. Examples of provisions relating to local content in IBAs

The Raglan Agreement,¹ signed in 1995, has been used as a benchmark for First Nations agreements in the mining industry. Located in the Nunavik Territory, the mining firm (now owned by Xstrata Nickel) has signed an agreement with the two closest communities to the mine (Salluit and Kangiqsujuaq), the Makivik Corporation (an Inuit owned firm which oversees the political, social, and economic development of Nunavik). The agreement is meant to facilitate the "equitable and meaningful participation" of the Inuit population and ensure that the latter derive "direct and indirect social and economic benefits" during the life cycle of the mine. Two sections of the agreement contain specific requirements regarding employment and support to local enterprises.

Regarding employment and training, the firm commits to support training of Inuit population so that the "maximum number of jobs can be filled by Inuits". There are no numerical targets regarding labour participation nor a percentage of spending for training but the firm has set up a very elaborate human resource strategy which comprises the following elements:

- a) Training, both on-site and off-site, of Inuit population, notably through cooperation with established regional training programmes, in various categories of jobs relevant for the project;
- b) The establishment of an initial recruitment programme, including the identification and selection of potential employees. High priority is given to employees from the certain specific villages (notably those closest to the mine – signatory of the Agreement);
- c) Implementation of an information/orientation programme to advertise job opportunities;
- d) The commitment to give permanent employment to those who successfully complete the training programmes;
- e) The firm also committed to require its contractors and sub-contractors to give preferences in hiring employees from the Inuit community as well as those who have successfully completed the training programmes;

Key elements regarding the utilization of Inuit enterprises in performing work or supplying goods and services to the mining operations include:

- a) The identification of certain specific categories of services² whereby the firm "shall enter into direct contract negotiations solely with an Inuit enterprise", provided that a suitably qualified firm has been identified.
- b) For other services, Inuit firms will be invited to tender. The firm will identify to potential bidders Inuit firms that could be potential sub-contractors. The firm will enter in the tender document, a requirement that potential bidders should state the "number of Inuit individuals/firms that the bidder intends to use directly or as sub-contractors", in the execution of the bid; and that the bidder commits to assist in the "training of such individuals or firms to supply the goods or perform the services".
- c) Contracts will be awarded on the basis of cost competitiveness, continuity of supply, quality of work and timeliness.
- d) A data base will be maintained by one of the communities regarding the list of potential suppliers
- e) A monitoring mechanism has been set up, including for the firm's contractors that need to submit regular reports regarding the number of job offered and firms engaged from the Inuit community, including by contractors and sub-contractors.

The **ULU Inuit Impact and Benefits Agreement** (1996) between the Echo Bay Mines Ltd. and the Kitikmeot Inuit Association (KIA). Some of the highlights of the Agreement are:

- a) The creation of Inuit business and industry.
- b) The development of an Inuit "content formula" to help decide how contracts are to be awarded. Furthermore, the firm undertakes "when practicable", to break down all multi-component contracts into discrete tendering packages, which can be bid as a group or individually. The firm also promises to provide letters of intent to facilitate financing of Inuit business opportunities.
- c) A target of 60% Inuit employment is set in the project, whether employed directly by Echo Bay, or by its contractors or subcontractors. The goal was to be met within 24 months from the date of execution of the IIBA, subject to labour market supply capacity.
- d) Financial assistance from Echo Bay for small businesses, including a 5% advance payment to assist the

business in startup for contracts less than CAD 50 000

- e) Advance payments provided by Echo Bay for small businesses;
- f) Training and raising awareness about employment and business opportunities.

Notes: 1. See full agreement: <http://www.sdsg.org/wp-content/uploads/2011/06/Raglan-Agreement-CDA.pdf>

2. These are: air transportation; catering and hostelry; road maintenance; diamond drilling; ground transport of supplies; trucking of concentrates; fuel storage, and/or handling and/or distribution; environmental research, monitoring and baseline studies; on-site preparation of explosives.

Source: Raglan Agreement, 1995; Keeping, 1998; O'Reilly and Eacott, 1998.

67. A main feature of the Canadian approach appears therefore to be encouraging a "partnership approach" to mining in Indigenous communities. Beyond the focus on agreements, the government also conducts activities centred on promoting community readiness for economic participation, including for example producing information products, including guides to mining industry and human resource opportunities, newsletters and factsheets. Natural Resources Canada has also undertaken activities to monitor and share best practices around "community engagement and readiness", as part of its commitment under the MMR policy to monitoring progress.

Suppliers' development: mining equipment suppliers

68. With the presence of well-established mining activities, Canada has historically relied on domestic firms to develop the mining industry. As a result, geographically focused clusters of associated industries have tended to develop naturally. Today, there are approximately 600 domestic suppliers of mining equipment and services, which appear to have significant depth in products related to activities such as underground mining, environmental management, exploration (e.g. airborne geophysical equipment and related software developers), mineral processing and mine automation. Many firms have expanded globally and are among world-class suppliers.

69. The federal and provincial governments have facilitated the development of suppliers' capacity, clusters and professional skills, primarily through the provision of financial resources to finance public R&D and by providing public goods, such as information and infrastructure to encourage industrial services. At the provincial and territorial level, almost every jurisdiction has a strategy to encourage the development of mining and supporting industries. Of the major mining regions, Ontario, British Columbia, and Quebec currently have "stand-alone" innovation strategies. For example, the Ontario government has set up the Ontario Mineral Industry Cluster Council, consisting of representatives from the mining industry, academia and government. This Council meets regularly to collaborate, exchange ideas, and promote competition and economic development.

70. The internationalization of Canadian mining firms has stimulated the development of services industries in particular in upstream activities. Although their mining operations are located abroad, many firms remain headquartered in Canada, providing significant professional and financial opportunities for Canadian firms. Many suppliers of goods in Canada's mining clusters have actually never supplied mining firms operating domestically, focusing instead on supplying operations abroad. Furthermore, in addition to large mining firms, an increasing number of Canadian "junior" firms have internationalized their activities, focusing mainly in exploration activities. These firms rely on Canadian suppliers of specialized exploration equipment, as well as Canadian equity markets and professional service firms.

Assessing the impacts of local content provisions

71. The variety of Indigenous participation agreements (particularly IBAs) and a general lack of meta-studies means that any assessment tends to be based on accounts of individual projects, which in turn suffer from a number of potential problems: they largely rely on anecdotal information and sometimes suffer from independence issues (for example if conducted by mining firms themselves). They are often carried out with the aim of elevating and propagating best practice rather than providing critical evaluation of an unbiased representative sample. Assessing particular objectives within IBAs – such as those more closely related to local content policies such as provisions for local procurement or hiring – is even harder.

72. At the level of individual projects, available studies nevertheless indicate that there are a number of examples of IBAs successfully involving local Indigenous communities. In 2014 the Intergovernmental Working Group on the Mining Industry produced a *Compendium of Case Studies of Good Practices in Community Engagement and Readiness* that highlighted 22 examples of good practices in areas ranging from "first contact" to post-mine reclamation. Amongst these case studies are a few examples of how local content requirements or initiatives have worked in practice across Canada. In Northern Saskatchewan, mining firms signing a mining surface lease agreement are obliged to negotiate a separate sub-agreement on Human Resources Development with the Ministry of Economy which:

"Establishes a collaborative approach designed to maximise recruitment, training, and advancement opportunities for residents of Saskatchewan's North, which also contributes to capacity development so that communities can be 'ready' for future development. Mine operators report their progress each year [...] which assists government in labour force planning and other economic development initiatives. [...] This has led to the mining industry in Northern Saskatchewan being industry leaders in Aboriginal employment and business procurement. On average, 47% of all mine-site workers are recruited from northern Saskatchewan and 42% of all workers are of Indigenous heritage. In 2012, mining in northern Saskatchewan contributed CAD 1.78 billion to the provincial economy in wages and goods and services purchased. Northern businesses and joint ventures earned CAD 624 million, or 40% of total goods and services expenditures." (IWGMI, 2014)

73. In the Northwest Territories (NWT), the territory government asks firms to put in place follow-up programmes in the form of socio-economic agreement (SEAs) which include inter alia employment and business opportunities. According to IWGMI (2014) the NWT government "oversees the implementation of these agreements and coordinated government efforts under each agreement while monitoring how well each firm carries out its respective functions". In addition to substantive commitments around maximising opportunities, there is also an emphasis on monitoring outcomes and continually improving implementation, with firms typically reporting annually or bi-annually, on issues including employment by priority group and recruitment issues, and spending by group. The report concludes that since 1996 the SEAs have created "significant and unprecedented benefits for Northern Canada", including 18 000 man-years of employment and CAD 10 billion in goods and services from northern firms.

74. At Halfmile Mine in New Brunswick, project approval was preceded by consultation with Mi'kmaq communities that resulted in a memorandum of understanding (MOU) that includes "employment opportunities with a target of at least 20% of the work force (including any contracting), financial benefits, hiring of a Mi'kmaq Benefits Administrator to identify and promote First Nations opportunities, a student summer employment program, and educational scholarships" (IWGMI, 2014, 51).

75. In a separate example of a government supply-side support project, the government of Quebec created two local Indigenous mining funds – the Cree Mineral Exploration Board (CREB) and Numavik Mineral Exploration Fund (NMEF) – which invested along the supply chain in:

- Advocacy and creating awareness encouraging communities to become more involved in mining development.
- Training activities to enable individuals to reach the level of prospector.
- Support for exploration activities by local prospectors.
- Business creation through the two funds was credited with helping create a total of seven exploration firms, five prospecting firms and 19 service firms between 2001 and 2014 (IWGMI, 2014, 31).

76. Of the few studies to look at specific components within IBAs, MIHR (2012) looks at lessons learned from human resources provisions in the agreements and makes a number of recommendations about the negotiation, implementation and typical employment-related provisions included in IBAs. Most notably with respect to the latter the report found that the use of employment targets has become within IBAs more pragmatic over time:

"In the first IBA-type agreement, the Strathcona Agreement, the parties aimed to have 60 per cent of the workforce represented by local Indigenous peoples. This was an arbitrary number chosen by the company and the federal government without any apparent analysis; as such, it was bound to fail. Since then, some IBAs have included targets [...] some have included a percentage of all employees; and others have stated that the company will utilize 'best effort'. Both communities and companies believed that establishing a numeric target [...] was far more successful than aiming for 'best effort'. [...] A definite number can be tracked and that alone means the company can be held accountable. However, this study showed that although the company's performance can be tracked and reported, it is rarely done. As a result, some communities stated that they were not sure how well – or even if – the HR section of the IBA was succeeding."

77. The report also highlighted the importance of supporting measures to be included in IBAs, including scholarships and training programmes as "extremely important for all". Interestingly, the report found that from the perspective of communities that clauses related to business development were often included in IBAs, but "varied in strength" between agreements and were less familiar to Indigenous community respondents than to mining firms themselves (MIHR, 2012, 14-15).

78. A few more critical studies have been produced. For example PDAC (2011) highlights a number of areas in which current efforts could be strengthened, including: clarifying consultation protocols and permitting requirements, resolving outstanding land claims, implementing government resource revenue sharing, and building on existing training programmes for Indigenous communities to enhance their skill levels and enable them to participate directly in the mineral industry.

79. Drawing on earlier work by Public Policy Forum (2012), Fraser Institute (2012) also highlights several limitations, drawbacks, and areas for further research with respect to IBAs, including:

- Lack of transparency: confidentiality clauses normally built into IBAs "limit their transparency [and] the ability of Indigenous groups to share information and learn from the experience of others. It also makes it more difficult to independently evaluate IBAs and their outcomes for communities".
- Distributional issues: In some cases, benefits "may be distributed unequally across the community, with the majority remaining "in the hands of those in charge", as a "result of community governance structures or local class divisions".

- Implementation and "whether components of agreements are realistic". For example "employment targets mean little if the community does not have the ability to provide appropriate training".

Linkages with Promoting CSR Abroad

80. Beyond the domestic industry, Canada sees itself as a global leader on encouraging CSR approaches in its firms operating abroad. The government adopted its first CSR strategy for the Canadian extractive sector abroad in 2009 and updated it in November 2014, building on experiences and best practices gained in the intervening period.²⁹ According to Natural Resources Canada, the new strategy:

*"...clearly demonstrates the Government of Canada's expectation that Canadian companies will promote Canadian values and operate abroad with the highest ethical standards. It also outlines the Government's initiatives to help Canadian companies strengthen their CSR practices and maximize the benefits their investments can provide to those in host countries."*³⁰

The existence of such a strategy also underlines the need to ensure that Canadian firms conduct themselves abroad according to the highest of ethical standards.

81. In addition, Canada has recently passed the Extractive Sector Transparency Measures Act, which builds on commitments made at the G8-level to establish new reporting standards for extractive sector firms, and:

*"to foster better transparency to ensure that the resource extractive industries support proper development in the countries where they operate, while at the same time making it harder to conceal illicit payments. [...] the Act will require affected entities to report any payments made in relation to the commercial development of oil, gas or minerals during a financial year [...]"*³¹

82. Further, Natural Resources Canada has published a "CSR Checklist" for mining firms working abroad, and also maintains a register of responses on its website to questionnaires sent to firms on how they integrate CSR objectives into their work.³²

83. A study by EWB (2015) looking at Canadian firms' commitments in local procurement globally found that increasing numbers of firms were mentioning local procurement in their reporting. The focus however was on overseas mining activity, rather than procurement policies in Canada.

²⁹ The 2014 strategy is called "Building the Canadian Advantage: A Corporate Social Responsibility Strategy for the Canadian Extractive Sector Abroad", <http://www.nrcan.gc.ca/mining-materials/mining/corporate-social-responsibility/16484>.

³⁰ <http://www.nrcan.gc.ca/mining-materials/mining/corporate-social-responsibility/16484>.

³¹ <http://www.canadianmininglaw.com/2015/06/02/canada-proclaims-the-extractive-sector-transparency-measures-act-into-force/#more-1057>.

³² <http://www.nrcan.gc.ca/mining-materials/mining/corporate-social-responsibility/17243>.

Table 4. Summary of LCPs applicable in Canada

Type of Requirements	Details of requirements	Applicability in Canada	Relevant legal frameworks
Foreign Investment Test	Large foreign investments or acquisitions in mining must undergo a review and approval process to determine if they create a 'net benefit' to Canada	"Net benefit" to Canada is assessed based on factors including: <ul style="list-style-type: none"> the effect of the investment on the level and nature of economic activity in Canada (including employment; resource processing; utilisation of parts, components and services produced in Canada; and exports from Canada) the degree and significance of participation by Canadians in the existing and proposed businesses the compatibility of the proposed acquisition with national and provincial industrial, economic and cultural policies 	Investment Canada Act
Consultation with Indigenous communities	Prior consultations with Indigenous communities before development of activities	Canada's constitution obliges the Crown to consult with Indigenous communities when it contemplates conduct that might adversely impact potential or established Aboriginal or Treat rights. When this duty arises, the Crown is required to carry out a fair and reasonable consultation process and demonstrate efforts to respond and accommodate, if appropriate.	Canadian Constitutional rulings
Preferential treatment	Firms to hire local labour or source inputs from domestic suppliers only if available on a competitive basis	Impact and benefit sharing agreements negotiated on a project-by-project basis may contain provisions on preferential treatment of Indigenous community employment or sourcing	Socio-economic Agreements, Impact and Benefit Sharing Agreements, etc.
Capability and knowledge development	Requirement for the training of local labour or certification of local suppliers	Impact and benefit sharing agreements negotiated on a project-by-project basis may contain provisions on the training of local labour or certification of local suppliers	Socio-economic Agreements, Impact and Benefit Sharing Agreements, etc.
R&D contribution and transfer of technology	Fostering innovation through increased local spending on R&D	Tax incentives or support programmes for innovation in SMEs. Incentives, tax or otherwise, by provinces are available to firms that establish or relocate R&D facilities in some provinces.	Scientific Research and Experimental Development (SR&ED) Examples include: Plan Nord (Quebec), Jobs and Prosperity Fund (Ontario), Innovation Vouchers (Alberta).
	Firms required to transfer technology to local firms	Impact and benefit sharing agreements negotiated on a project-by-project basis may contain provisions requiring firms to transfer technology to local firms	Socio-economic Agreements, Impact and Benefit Sharing Agreements, etc.
Information sharing	Requirement to advertise job vacancies or publish tenders and procurement requirements	Impact and benefit sharing agreements negotiated on a project-by-project basis may contain provisions requiring firms to advertise job vacancies or publish tenders and procurement requirements	Socio-economic Agreements, Impact and Benefit Sharing Agreements, etc.
Reporting and justification	Mining firms to report on levels of hiring local labour or sourcing inputs locally	Impact and benefit sharing agreements negotiated on a project-by-project basis may contain provisions requiring firms to report on levels of hiring local labour or sourcing inputs locally	Socio-economic Agreements, Impact and Benefit Sharing Agreements, etc.

Main properties

84. Canada's approach to local content in mining is heavily focused on supporting Indigenous peoples as a key target group. It offers insights both on the overall approach to promoting local content, and in terms of how to target and benefit distinct or specific groups that might otherwise become marginalised or disenfranchised by mining activity. It should be noted however that the government of Canada does not consider these policies to be local content policies per se. They have been included in this survey as they aim to increase the participation of a subset of the population that are locally based.

85. In keeping with Canada's broad approach to the regulation of mining, in most cases, local content policies appear to be focused less on prescribed and formal tools embedded in legislation and mandatory instruments, and more on incentives and a "partnership approach" to foster involvement of interested stakeholders. The approach derives from the legal context in Canada around the "constitutional duty to consult" in which mining firms are motivated by the desire to avoid challenge by local populations.

86. It is difficult to ascertain the impacts of such consultation agreements since they often largely rely on anecdotal information and sometimes suffer from independence issues, for example if they are conducted by mining firms themselves. On the one hand, the resulting practical and *ad hoc* approach to negotiated agreements with Indigenous communities has certain advantages. Most notably it is flexible to cater for different circumstances, allows for real negotiations rather than a prescribed set of outcomes, and allows for revision and improvement over time. Such an *ad hoc* approach is necessarily strongly influenced by the negotiating strategy and strength of local communities. In some cases, the preferential access of local communities to procurement contracts is substantial. For instance, in one agreement, all air transport contracts, catering and hostelry; road maintenance; on-site preparation of explosives and many other services contracts are awarded solely to Inuit firms if a suitable provider can be identified--note the absence of any criteria of competitiveness. In other cases, it establishes hiring priority, giving preference to individuals from specific villages, for example those that are closest to the mine and are signatories to the Agreement. In some cases, such preferences could be viewed as being distributed unequally across the targeted community.

87. On the other hand, few enforcement mechanisms appear to exist. There are identified challenges in implementation, such as meeting employment targets, and in monitoring the agreements. Hence the Canadian approach might be contrasted with those that automatically contain more formal or standardised reporting requirements, or legal recourse to sanctions for any failures or shortcomings in implementation.

88. Canada's approach to overseas firms that invest in Canada is legislated at the federal level by the Investment Canada Act. Large foreign investments or acquisitions must undergo a review and approval process to determine if they create a 'net benefit' to Canada. This is based on factors such as:

- The effect of the investment on the level and nature of economic activity in Canada including employment; resource processing; utilisation of parts, components and services produced in Canada; and exports from Canada.
- The degree and significance of participation by Canadians in the existing and proposed businesses.
- The compatibility of the proposed acquisition with national and provincial industrial, economic and cultural policies.

Investors must often negotiate a set of commitments which may ensure that a majority of senior management of the Canadian business is Canadian; maintain certain levels of employment; or undertake a specified level of R&D expenditure.

89. Policies at the federal and provincial levels aim to increase spending on R&D and support local innovation. These include tax incentives and support programmes to increase spending in specific areas, such as Clean Coal, or to target, for example, SMEs. These incentives are not specific to the mining sector.

90. Finally, the Canadian government has placed a new emphasis on promoting CSR among Canadian extractive firms operating overseas, although it is as yet unclear how such standards will be monitored and enforced.

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THE CASE OF FINLAND

Overview of Finland's economy

91. The mining sector has been a prominent part of Finland's history and economy for hundreds of years.³³ According to the Ministry of Employment and the Economy there were 46 mines and quarries operating in Finland in 2013. Present activity is concentrated on gold, platinum group metals, base metals, diamonds and industrial minerals

92. The mining industry in Finland is a mature and advanced industry.³⁴ The transformation of the mining sector in Finland offers pertinent insights for two reasons. First, the sector diminished in importance, and was virtually abandoned, in the 1970s, to concentrate and specialise on manufacturing and services before a rebirth in recent years. Secondly, the sector managed successfully to evolve from a raw material based sector towards higher value added and knowledge intensive activities.

93. Today, the sector accounts for 0.3% of GDP (Statistics Finland, 2015) and provides 3 000 direct jobs (Ministry of Employment and the Economy, 2013). The direct contribution of mining activities however is dwarfed by that of mining services and suppliers of technological solutions. The country is home to world-class service providers that weigh significantly both in terms of contribution to the economy and in terms of employment estimated at 87 000 jobs.³⁵

94. More broadly, following a decade of strong growth and despite the financial crisis of 2009, innovation and structural reforms have made Finland one of the most competitive European economies (WEF, 2012). The country is characterised by a high degree of technological innovation and knowledge, making it a well-recognised "knowledge" economy.

³³ Mines are mainly located in the Eastern and Northern parts of the country, which are characterised by higher rate of unemployment compared to the rest of the country.

³⁴ Zinc, copper, nickel and chrome ores are produced in Finland. However, it is the industrial minerals, those that are not used for production of pure metals such as dolomite, limestone, talc and other minerals, which constitute the main part of the Finnish mining industry. Finland is the biggest producer of talc in Europe and one of the most important sources of carbonates, titanium pigments, which are used e.g. as pigment in paper industry (Geological Survey of Finland, 2015). Mining projects include the excavation of iron, chromium, copper, nickel, zinc, gold, vanadium, titanium, lead, cobalt, silver, tungsten, and molybdenum ores, along with ores containing rare-earth elements. Finland also has high potential for producing the so-called high-tech metals. In 2011, the estimated turnover of the mining industry was EUR 1.48 billion, among which mining of metal ores accounted for about EUR 963 million (Ministry of Employment and the Economy, 2013).

³⁵ According to a study on the mining and mineral industry service supply commissioned by the Ministry of Employment and Economy (2013), 300 technology and/or service suppliers were identified at various stages of the mining and mineral industry value chain, with a total turnover of nearly EUR 26 billion and more than 87 000 employed.

A short historical overview of the mining industry

95. To understand how the Finnish mining sector developed to become one of the most technologically advanced worldwide, taking a historical approach is necessary to better highlight the external and internal factors that contributed to its success. Two fundamental strategies are relevant to Finland's experience in the extractive sector. *First* success was based on home-grown strategies with emphasis on internally generated capital, raw materials and skills. *Second*, the extensive government involvement was critical (International Business Publications, USA, 2008).

96. Ownership of enterprises in charge of exploration activities is mainly foreign (Canada, Australia and Sweden).³⁶ Over the years, and in part due to Finland's advanced level of economic development, the mining industry has created numerous linkages in the economy. Finland developed strong manufacturing and services which have become well-recognized on the global scene.

Role of the State in driving the mining sector

Early nationalisation policies

97. In the early days of independence in 1917, Finland was eager to re-appropriate its resources, and to develop its industries independently. This was translated by the nationalisation of several industries, the birth of many state-owned enterprises and significant public investment to improve the country's ability to process its own raw materials and increase its competitiveness. Regulations regarding foreign direct investment were quite constraining in particular regarding ownership.³⁷

Capacity development: A national priority

98. Since the early stages in the development of its mining industry, Finland had set the development of capabilities as a top priority. Acquiring crucial knowledge and know-how were done through (i) the hiring of foreign experts from Norway, Sweden, and Germany, (ii) the training of Finnish engineers abroad; and (iii) learning by doing notably through reverse engineering, e.g. copying innovations from imported machinery/technology (Raumolin, 1988). In addition, academic institutions were closely associated with the training of local competencies, which were even located close to the mines.

Role of state-owned enterprises (SOEs)

99. Setting-up SOEs in the mining industry was of particular strategic importance. It enabled the government to control and drive the sector to meet its priorities. From an economic perspective, SOEs channelled investments into key industries, allowing the country to add value to its mining industry,³⁸ to diversify into other sectors and to provide employment opportunities. In addition, it allowed the government to develop powerful firms in specialised and sophisticated products, in line with the strategy to

³⁶ The only mines whose ownership is mainly Finnish are the Kemi chromium mine and the multi-metal mine of Talvivaara (Ministry of Employment and the Economy, 2013).

³⁷ "In 1939, new laws to restrict foreign ownership were implemented. The main thrust of these laws was that no foreigner or foreign organization could acquire real estate in Finland without permission from the government. Legislation also restricted the operation of foreigners by prohibiting mining claims and the purchase of mines without the government's permission. A foreigner could not be a member of a board of directors or the general manager of a firm without permission" (Hjerpe, 2003).

³⁸ This was later crucial to develop links between industries and overall the mining value chains – vertical and horizontal integration.

build up a knowledge economy. In the 1970s, Finnish suppliers embarked on a strategy of internationalisation becoming global leaders by the late 1980s in various specialised sectors.

A cluster-based policy: Maximising spillovers

100. Finland endorsed a cluster-based approach in an attempt to overcome economic difficulties faced in the 1980 to further increase productivity, specialise in the production of higher value added products, and remain competitive on the global scale. This approach reconciled policies in education, science, and technology, industrial and economic development, into a more coherent approach. Various actors from different industries and different nature – academia, government institutions, and private sector – were involved with a view to allow and maximise technology and knowledge transfers between firms, including the smaller ones.

101. The role of investments in technology creation through state subsidies and the setup of several institutions were prominent. The government changed its role from that of a driver to that of a facilitator, in particular to provide a better business environment. Institutions coordinated and supported R&D activities, notably through subsidies.³⁹ Pooling firms in an industrial cluster turned out to be efficient and encouraged more specialisation while reducing transaction costs. It facilitated technology diffusion between related firms (in particular SMEs with limited own R&D resources) and contributed to their internationalization, which might have been more difficult if they were to do so on their own (Blomstrom et. al., 2002).

Accession to the EU in 1992

102. The Finnish government had to align its domestic regulations to that of the EU when it joined the common market in 1992. In particular, it had to complete its market and investment liberalisation. All local content requirements were abandoned. In fact, LCPs were no longer necessary because by that time, Finland already had a strong operational environment, technological and technical know-how, state of the art infrastructure, and high skills. The country had a mature and advanced economy, with a comparative advantage based on technological innovation and knowledge. Many firms were motivated to locate to Finland to benefit from the synergies from the latter's specialised industries (Ali-Yrkkö et. al., 2003). By fostering linkages with foreign firms, Finland was able to obtain additional capital investment in the mining industry.

Renewal of the mining policy and legislation: A new business model

103. The Finnish government elaborated a new minerals strategy in 2010 by means of a collaborative process that included all stakeholders. The strategy aims to create a coherent framework in which the mining sector is viewed as a cluster including exploration and mining activity, downstream processing, and mining equipment, technology and services (Geological Survey of Finland, 2010). The new strategy includes four main themes for action:

- Strengthening minerals policy
- Securing the supply of raw materials
- Reducing the environmental impact of the minerals sector and increasing its productivity
- Strengthening R&D capabilities and expertise.

³⁹ The Government set up institutions such as Tekes, the Finnish Funding Agency for Innovation, in 1983 and STPC.

104. There is a strong push to return to mining activity which has almost stopped in Finland. This coincides with the EU raw materials strategy that aims to increase self-sufficiency in minerals. This is not without challenges, that can often be summarized as the ‘not in my backyard’ view of mining, which are being addressed, in part through a consultative process surrounding the minerals strategy. Increasing mining activity entails first encouraging exploration. Ensuring a competitive operating environment for exploration and mining investment requires addressing growing concerns in the sector including land use restrictions, complex regulations and long permitting processes.

105. One of the main pillars of the Finnish mining strategy is ensuring continued innovation. Finland already has a strong comparative advantage in the sector and is recognized internationally as a leading supplier of mining equipment and machinery and processing plants. The strategy document even suggests that “when an underground mine is established anywhere in the world, 70-90% of the required technology comes either from Finland or Sweden” (Geological Survey of Finland, 2010, p. 10).

106. The Finnish government plays a central role in the mining cluster, by financing and supporting R&D in the sector, and through education and training. “Without active intervention by the government, including contributing to R&D financing of the minerals sector, Finland will not succeed as an innovative provider of technologies within the emerging green economy. A strong and sustained commitment to education, research, product development and commercialisation, integrated across sector boundaries will form the basis for new Finnish business models and activities in the sector” (Geological Survey of Finland, 2010). Specialized training programmes at universities of applied sciences and technical trade school are reinforced to meet future needs.

107. Another major pillar of the Finnish minerals strategy is mitigating the environmental impact of mining and focusing its innovation on ‘green mining’. Finland promotes advances in efficient use of resources and implementation of intelligent systems, together with recycling initiatives that promote sustainable mining practices, as key future areas of growth within the sector. It aims to develop new business opportunities by combining skills and expertise in environmental and mining technologies with those in metals processing and machinery and equipment manufacturing. Synergies are sought with Swedish providers as both countries share a long mining history and similar expertise in mining equipment, technology and services.

108. Almost all minerals processing (‘beneficiation’) is done in-country, and it is planned that this continues. Along with exploration techniques, this remains a main area of mining research and development.

109. The new strategic approach supports Finnish suppliers. Building upon Finland’s long experience as a world-class provider of inputs, services and logistics for the mining industry, the new strategy aims to position suppliers as “solution” providers therefore opening new scopes and markets. This objective will be realised notably through:

- Measures to further encourage **suppliers’ development**, notably through incentives for Finnish firms to maintain their technological leadership across the minerals sector.
- A dedicated **investment programme** for the mining industry with a budget allocation of EUR 30 million to provide financing opportunities and loan guarantees.
- Continued **investment in education and R&D** (e.g. Green Mining programme to enhance research and innovation, funded by Tekes, the Finnish Funding Agency for Innovation) and the elaboration of specialised training programmes at universities of applied sciences, and technical trade schools to meet the needs of the mineral sector.

- Agreement between mining firms and government for the support to **infrastructure** development, once parties agree on investments and production levels are realised.

Legislative framework in Finland

110. The main legal framework guiding the mining industry in Finland is the 2011 Mining Act. It provides the overall policy orientation of the sector, notably (i) to promote responsible mining activities; (ii) to ensure an inclusive process, with specific opportunities for municipalities and individuals living in mining environments to influence decision-making and (iii) to promote the safety of mines and mitigate damages arising from mining activities.

111. There are no specific local content requirements in the new legislation. A few provisions are nonetheless relevant, in particular regarding conditions of registration, access to financial incentives and to a certain extent, labour market.

112. The rules and regulations are summarised in Box 3.

Box 3. Mining regulations in Finland

- The National Mining Strategy (2010)
- The Mining Act (621/2011)¹
- The Government Decree on Mine Safety (1571/2011)
- The Decree of the Ministry of Employment and the Economy on Hosting Equipment in Mines (1455/2011)
- The Finnish Government Decree on Mining Activities (391/2012)
- Action Plan
- EU Council Directives 92/91/EEC
- EU Council Directives 92/104/EEC

Note: 1. It replaces the previous Mining Act (503/1965).

Source: Author, based on Kalliola Asianajotoimisto Oy – Attorneys at Law (2015).

Ownership requirements

113. Foreign firms can apply for an exploration and a mining license if they establish an affiliate in Finland, or if they belong to the EEA, they are to set up a branch in Finland as a minimum requirement. To reinforce such measure, the possibility of accessing Tekes funding can only be done if the firm is registered in Finland (branches cannot access Tekes funding). This measure is meant to anchor foreign firms within the mining cluster in order to maximise potential gain in capital, knowledge and business opportunities.

Labour market

114. The needs of the labour market are taken into consideration when granting a residence permit for a foreign employee, based on an estimate of the labour requirements in the field of expertise and ability of the foreign worker to be financially sustainable.

Table 5. Summary of LCPs applicable in Finland

Type of Requirements	Detail of requirements	Applicability in Finland
Quantitative Requirements		
Requirements based on numerical targets	Labour requirements	No specific numerical targets but needs and expertise of the labour market must be taken into account before granting permit to foreign employees
	Specific categories of procurement reserved for local suppliers	None
	Permits or licensing requirements	Foreign firms can apply for a licensing requirement provided they set up an affiliate in Finland
	Spending requirements regarding technological transfer	None but incentives are provided through dedicated investment programmes
Requirements based on monetary value	Requirements regarding R&D spending locally	None but investment in R&D and education is considered a priority and receives financial support from Tekes
	Value of wages paid to expats should not exceed a % of total payroll	None
	% of local procurement spending to be attributed to local suppliers	None
	Preferential price premium exclusively for local suppliers	None
	Registration requirement to access funding	Tekes funding can be made available if firms are registered in Finland
Qualitative Requirements		
Reporting & justification	Mining firms to report and justify hiring foreign labour or sourcing inputs from abroad	None
Information sharing	Requirement to advertise job vacancies or publish tenders and procurement requirements	None
Capability & knowledge development	Requirement for the training of local labour or certification of local suppliers	None
R&D contribution and transfer of technology	Firms required to transfer technology to local firms; or Firms required to carry out some levels of R&D locally	None
Preferential treatment	Firms to hire local labour or source inputs from domestic suppliers only if available on a competitive basis	None

Main properties

115. The evolution of the mining industries and the approach taken by Finland offers an advanced economy perspective, with a mature industry and well-developed suppliers base. As the nature of the industry shifted away from traditional mining activities, the priority in Finland also shifted to strengthen its position as a world-class supplier of goods and services to the mining sector, with a particular focus on innovation and technology.

116. Today, Finland is increasingly positioning itself as a "solution" provider, meaning that its firms are able to provide a combination of products and services aimed at solving a particular "problem" of the customer. This is an important distinction and contrasts with traditional goods and services providers. "Solution" providers are able to offer tailor-made packages that respond to the specific needs of mining firms.

117. The case of Finland suggests that clear policy objectives, supported by well-designed policy tools, were instrumental in the success of the mining sector. While much emphasis was placed on the development of a knowledge-based economy, Finland moved away from a traditional situation where

linkages had to be developed to dis-enclave the sector, to a situation where the development of suppliers were at the core of the strategy as mining became a secondary activity.

118. Cluster-based policies were put into place with a particular focus on knowledge, technology and innovation; and the sequence in which those were put in place was not inconsequential. A strong state at the beginning as a driver, functional institutions, and targeted and time-bound protection or subsidies, all played a key role in shaping Finland's success story.

119. Seen in the historical context, a number of elements are pivotal to the Finnish experience. Finland strongly prioritized capacity development. Acquiring crucial knowledge and know-how was done through (i) the hiring of foreign experts; (ii) the training of Finnish engineers abroad; and (iii) learning by doing, notably through reverse engineering. The Finnish government favoured a cluster strategy in order to increase productivity, specialise in the production of higher value added products, and remain competitive on the global scale. The role of investments in technology creation through state subsidies to R&D was prominent. The government changed its role from that of a driver to that of a facilitator, in particular to provide a better business environment. Pooling firms in an industrial cluster turned out to be efficient and encouraged more specialisation while reducing transaction costs.

120. When Finland joined the EU in 1992, and had specific requirements to remove all forms of favourable treatments for its domestic industries, its economy was well ahead of the curve. It then used its access to European industries and capital to its advantage.

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DEVELOPING ECONOMIES

THE CASE OF BRAZIL, GHANA, PAPUA NEW GUINEA PERU AND SOUTH AFRICA

121. This section highlights the case of developing economies. Five countries have been selected, from various geographical locations and with varied experiences in their approaches to local content policies. While these countries have very different trajectories with regards to the development of their mining sector, they are all richly endowed in natural resources and are key global producers of minerals and metals. While some countries are more diversified than others, the mining sector is nevertheless a key economic contributor, representing an important share of exports and fiscal revenue.

122. All of them aim to deepen their diversification strategies and to harness their mineral resources, in particular by offering job and business opportunities to their local population. Approaches to reach these objectives vary significantly.

THE CASE OF BRAZIL

123. Although mining activities are centuries old, laws particular to mining are fairly recent. The history of mineral exploration in Brazil has been shaped by changes in the legislation regulating the sector which have profoundly altered the government's involvement in exploitation of its mineral assets.

124. Global geostrategic considerations during the two world wars and critical policy choices in the 1950s shaped Brazil's growth experience for the rest of the century (Bacha and Bonelli, 2004). Like many other governments in Latin America, Brazil adopted and implemented import-substitution industrialisation policies, aimed at promoting national industries to reduce the dependency on imports. Brazil developed its mining industry through an active engagement of the State in pursuing a strong entrepreneurial role for itself in the productive sectors of the economy (Triner, 2011).^{40 41}

⁴⁰ The establishment of the National Steel Company and the transformation of the British owed Itabira Iron Ore company into a state-owned company, Companhia Vale do Rio Doce demonstrates the desire of the State to take a more active role in the mining sector. The country was highly dependent on state-led interventions to protect national industries. Protectionist trade regulations were put in place as well as subsidies and tax provisions to favour local industries.

⁴¹ Created in 1952, the Brazilian Development Bank (BNDES) was government's key instrument to implement industrial and infrastructure policies. In the absence of a well-developed capital market, it provided substantial financial support to national champions, such as Petrobras, the petroleum company, or Companhia Vale do Rio Doce (CVRD) the then state-owned company (now Vale). Its loans were sometimes contingent on local content restrictions.

General economic context

125. Brazil is the largest economy of Latin America and in 2014, was ranked the world's 7th largest economy (McKinsey, 2014). Like other emerging economies, Brazil witnessed rapid and buoyant growth during the last two decades due to its diversified and sophisticated economy but also due to windfall gains from high commodity prices and from rising global demand for its natural resources. Brazil has a large economic base, where no single industry dominates, although mineral resources play a central role. It also has vibrant agriculture and agro-processing industries, diversified manufacturing sector and service industries.

126. Despite a short-lived recovery following the financial crisis in 2009, Brazil's GDP growth declined in 2012, bringing to light unaddressed structural challenges such as its weak productivity performance, large infrastructure deficits, regulatory challenges and corruption scandals which had plagued the economy for decades but which had been temporarily masked by the commodity boom (McKinsey, 2014).^{42 43}

127. The recovery of the Brazilian economy will be conditional upon its ability to address key challenges. Among these is the external risk for the economy that results from low commodity prices, in particular oil and iron ore prices. Internally, it will have to overcome the setback from a recent scandal involving its national oil company, Petrobras, and several of the country's leading construction firms. Furthermore, a major priority is to reverse the infrastructure deficit and business climate that has been pushing up transport, port and logistics costs.⁴⁴

The mining sector in Brazil

128. Brazil has the world's 6th largest mining industry, producing and exporting about 80 mineral commodities, and ranks high in mineral production and reserves at the global level. In 2012, it was the world largest producer of niobium, with 98% of global production, 2nd largest producer of iron ore manganese and tantalite, with 17%, 20% and 28% of global production respectively, and 3rd largest producer of bauxite, with 14% of global production.

129. The mining sector is dominated by iron ore,⁴⁵ which accounted for 90% of metal ore production in 2012, followed by copper with 4.7%, aluminium with 2.7%, nickel with 1% and gold with 0.7% of ore production (UNCSO, 2015).

130. Brazil has the particularity that its main mining firm, Vale, is Brazilian and represents 80% of total Brazilian production of iron ore market.⁴⁶

⁴² According to the World Bank Ease of Doing Business Indicators, Brazil ranked 116th out of 189 in 2014 in terms of regulatory burden, and 159th in the taxation category. It takes business 2 600 hours each year to prepare and declare taxes, compared to 318 hours in China or 259 hours in Indonesia.

⁴³ Brazil's investment in infrastructure has fallen from 5.4% of GDP in the 1970s to 2.1% in 2000s. Transport infrastructure as a share of GDP has fallen from 2% in the 1970s to 0.5% in the 2000s. Only 14% of its roads are paved and rail links remain limited.

⁴⁴ The World Bank ranks Brazil at the 124th place for ease of trading across borders and it estimated that the cost of exporting a container from Brazil is USD 2 215, more than double the OECD average.

⁴⁵ Iron ore is a raw material that is used to make pig iron, which in turn is used to make steel along with other raw materials like coking coal and lime; 98% of the mined iron ore finds its way in steel production.

⁴⁶ The remaining 20% is produced by CSN, Anglo American, MMX and Samarco.

131. Given the sectoral diversification of the Brazilian economy, the contribution of mining to the economy appears relatively modest, estimated at only 1.1% of GDP and represented 2% of total tax contributions in 2010. Mining investments represented only 3% of total FDI stock in 2010, largely because the largest investments originated from domestic sources, in particular from Vale, a Brazilian multinational firm, which ranks second in the world. However, the mining sector accounted for a significant share of exports, representing 23% of total exports in 2010, with iron ore accounting for 16.7% of exports (ICMM, 2013).

132. The mining sector is a relatively small employer at the national level. In 2010, total direct formal employment in the mining sector was estimated at less than 1% of the occupied labour force in Brazil. However, at the sub-national level, the mining sector plays a more significant role. Opportunities vary according to the level of project development in the mining cycle. In the region of Para, for example, during the construction phase, the sector generated up to 20% of jobs. A study shows that the multiplier effect of job creation is 1:13 in the mining sector.⁴⁷ This implies that for every job created in the mining sector another 13 jobs were generated along the supply chain. However, the labour market is considered quite rigid in Brazil, with stringent labour laws and regulations and strong labour unions.

133. Professional skills shortage is regularly highlighted as a recurrent challenge faced by mining firms. Today, the average educational attainment in Brazil is 7.2 years, which ranks quite low compared to other economies at similar levels of development. This suggests serious challenges related to the quality of public education, equity and the level of resources invested in the education system (Schwartzman, 2003).

LCPs today: legal frameworks and practical applications

Policy objectives

134. Brazil does not include local content requirements explicitly in its mining policies. However, a number of policy instruments have been crafted to encourage firms to have recourse to local factors of production, and in particular to hire locally.

135. In 2011, in an effort to boost its manufacturing sector, the Government of Brazil outlined an Industrial Plan for “Bigger Brazil”, where the objective is to promote domestic industries⁴⁸ and improve the latter’s competitiveness providing a fiscal stimulus package in the form of tax incentives for specific sectors and low-cost lending facilities offered by Brazil’s National Development Bank, BNDES. Although the mining sector is not among the 15 priority sectors identified, capital goods and electrical materials, key inputs into the sector, feature prominently.⁴⁹ Many of the fiscal benefits granted within the Bigger Brazil plan have expired or are due to expire in 2017.

⁴⁷ Study conducted by the Ministry of Mines and Energy’s Secretariat for Geology, Mining and Mineral Processing. Source IBRAM, 2012.

⁴⁸ For example, government purchases of goods and services are guided to domestic firms, provided they do not cost more than 25% more than imported ones, as long as they meet technical requirements.

⁴⁹ The first phase of Bigger Brazil, announced in 2011, eliminated the payroll tax for clothing, footwear, call centers, and software sectors. In the second phase, announced in 2012, eleven new sectors qualified for payroll tax elimination, including textiles, auto parts, capital goods, plastics, furniture, electrical materials, buses, shipping industry, airplane industry, hotels, and microchip design.

Regulatory frameworks

136. Rules that have an implication for the mining sector are contained in both federal and sub-national legal frameworks. At the *federal level*, the Brazilian Federal Constitution and the Mining Code set the basic framework within which mining activities operate. At the *sub-national level*, different states and municipalities have specific requirements, called "*condicionantes*" to which mining firms must abide in order to obtain licenses. Some of these conditions can be mandatory and target oriented. Often, local content policies are defined at the sub-regional level.

137. At the federal level, Article 20 of the Constitution states that all mineral resources (surface and underground), are the sole property of the Union. Article 176 complements this by emphasising that prospecting and mining of mineral resources should be done *under the best national interest*. In addition, there are two main legal instruments of direct relevance to mining activities. These are:

- a) Decree Law No. 227, of 28th February 1967 (commonly known as the Mining Code); and
- b) Decree No. 62.934 of 2nd July 1968, which has been amended over the years.

138. According to the Mining Code, mineral resources can only be explored or exploited under authorisation or concession by Brazilian citizens or by foreign firms incorporated under the Brazilian laws and having their headquarters and management in Brazil.^{50 51} Concessions are valid up to the depletion of the deposit.⁵²

Investment regime applicable to foreign extractive firms

139. Brazil does not have a specific investment regime applicable to the mining sector. Foreign investments are regulated by the Brazilian Central Bank and are covered by laws and regulations applicable to any other type of foreign investment. Similarly Brazil does not have any international mining contracts. Equal treatment is granted to firms, irrespective of the origin and of the control of the corporate equity, with respect to the access to exploitation and to the use of the Brazilian sub-soil assets. The only exceptions apply to foreign firms engaged in mining activities in "border zones"⁵³ and inside Indian

⁵⁰ Exploration license is granted on a "first come, first served" basis to Brazilian citizens or legally authorised companies for a period of 1 to 3 years, extendable for the same number of years.

⁵¹ The ownership requirements have evolved over time in Brazil. The Constitution of 1988 (Art. 171) classified companies as "Brazilian companies" or "Brazilian companies of national capital" and a clear distinction was made between companies incorporated in Brazil but controlled by foreign capital and companies incorporated in Brazil owned by Brazilian capital. This was however amended in the Constitutional Amendment of 1995 (No. 6), where any firm incorporated in Brazil is considered as a Brazilian company, irrespective of the origin of the capital and of the nationality of shareholders. In the Mining sector however, mineral rights may only be granted to Brazilian nationals or Brazilian companies that have at least 51% equity ownership held by Brazilian companies.

⁵² The management of the mineral resources control and inspection of the mining activity are exercised by the federal government through the DNPM (Brazilian Department of Mineral Production), a federal agency linked to the Ministry of Mines and Energy

⁵³ An area extending 150 km parallel to the terrestrial division line of the national territory.

protection areas.⁵⁴ In these areas, mining activities must be conducted by firms that are controlled by Brazilians, that is, with national capital representing at least 51% of the total capital stock of such firms.

Fiscal and financial incentives

140. As outlined above, the "Bigger Brazil" plan allows tax incentives on production factors in order to increase competitiveness, technological innovation and development of strategic sectors, some of which are key to the mining sector. In addition, through its Development Bank BNDES, Brazil has defined an investment maintenance programme to provide loans at lower rates⁵⁵ to reduce the cost of financing, in particular for industrial purchases of machinery and equipment. The plan is aimed at promoting technological development, with a particular focus on knowledge and engineering-intensive sectors. To advance this objective, the BNDES also provides loans for investments that promote technological and production capacity for products not currently manufactured in Brazil.

Labour requirements application to the mining sector

141. All firms established in Brazil, irrespective of their sectors of activity, must comply with the Consolidated Labour Laws and the collective conventions in order to hire local or foreign employees. In the case of mining workers, employers must comply with some specific rules from the Ministry of Labour and Employment (MTE) related to the mining activity, such as the Regulatory Rule 22, on safety and occupational health in mining.

142. In addition, firms must provide justifications and evidence that hiring of foreign labour will not:

1. Increase the number of expatriates, in relation to the local employees to more than one-third of the workforce; and
2. Make the payroll of the expatriates exceed one-third of the total payroll.

143. Finally, foreign employees that have a permanent visa have some restrictions with regards to their activities for the first five years. They are not allowed to change residence, employer, professional activity or practice a professional activity in another area of specialisation.

Requirements to hire local suppliers or contractors

144. Brazil does not have any specific requirements for the hiring of suppliers and contractors in the mining sector contrary to the petroleum sector. These activities are subject to contractual relationships regulated by the Brazilian Civil Law.

145. Specific employment requirements are found in some regions in the form of "*condicionantes*". These are social obligations that firms have to respect in order to obtain their license. For instance, the license requirement for the ferronickel project in the area of Onça Puma had a quota-related LCP, of 70% "local employees" in first two years and 100% within seven years. It appears that the mining firm has been able to meet the targets although it has reported that the monitoring of these targets is quite challenging.

⁵⁴ Aboriginal land in Brazil is estimated at 985 000 square kilometres. It has great geological potential. Indigenous people have a right of self-determination and therefore are entitled to reject any mining project on their lands or to share the benefits.

⁵⁵ Interest rates for this programme were also reduced, from 8.7% to 7.3% for large companies, and from 6.5% to 5.5% for micro, small, and medium-sized enterprises.

Since there is no clear definition of "local", from a purely administrative perspective, it would suffice for any Brazilian to move to that particular location to be considered as "local", which defies the rationale of the "*condicionantes*".

Table 6. Summary of LCPs applicable in Brazil

Type of Requirements	Details of requirements	Applicability in Brazil	Relevant legal framework
Legal requirements specifying minimum content targets			
Numerical requirements	Domestic employment targets	The employer firm must evidence that the use of foreign labour will not increase the no. of expatriates, compared to local employees to more than one-third of manpower.	Consolidated Labour Laws; Specific rules from Ministry of Labour and Employment related to mining, such as Regulatory Rule 22, on safety and occupational health in mining
	Ownership requirement: % equity participation	No numerical requirement but firm but be registered and have headquarters and management in Brazil	Constitution
Monetary value requirements	Value of wages paid to foreign workers as a % of total payroll	Payroll of the expats cannot exceed one-third of total payroll	Labour law
	Ownership requirement: Compulsory state participation or joint venture with local firms to obtain licenses	N/A with the exception of foreign firms engaged in mining activities in 'border zones' and inside an Indian protection area. Activities must be conducted by firms that are controlled by Brazilians, with national capital representing at least 51% of the total capital stock of such firms.	Mining Code
Reporting and justification	Mining firms to report and justify hiring foreign labour or sourcing inputs from abroad	The employer firm must evidence that the use of foreign labour will not increase the no. of expatriates, compared to local employees to more than one-third of manpower; and make the payroll of the foreign worker exceed one-third of the total payroll.	Consolidated Labour Laws; Specific rules from Ministry of Labour and Employment related to mining, such as Regulatory Rule 22, on safety and occupational health in mining

Source: Consolidated Labour Laws; Mining Code; various rules from Ministry of Labour and Employment; Suppliers development: strategic partnerships and private sector initiatives

146. Brazil has a relatively developed industrial base, with a number of well-established firms that have the capacity to procure a relatively large number of goods and services to the mining sector. A recent study revealed that in the region of Southeast Para, Vale procured 75% of its inputs from Brazilian sources (22% from the region, 48% from providers outside the region but from Brazil and 4% from the State), which is significant compared to other developing economies (ICMM, 2013).

147. The definition of "local sourcing" is widely interpreted in Brazil and does not put any emphasis on the nationality or ownership of firms, nor on the degree to which firms should actually produce at the local level, although in some cases, it has specific quota requirements on the share of expatriates in the labour force and regarding their salaries. However, Brazil has actively supported the development of domestic engineering and services firms and has encouraged the establishment of key international players that were necessary to service the market. Furthermore, it encouraged joint ventures and partnerships between established international firms and domestic players with a view to combine international experience and technical expertise with the local knowledge of Brazilian firms. This has been particularly effective in supporting the mining industry in finding inputs locally.

148. In Brazil, the equipment supply market is more mature than the services supply market. Although still widely regarded as an emerging market, Brazil has relatively high levels of technical standards with regards to the manufacturing and supply of equipment. A number of large international firms and agents established themselves in Brazil decades ago to supply inputs to the mining industry.⁵⁶

Box 4. Key private-led initiatives in Brazil

Vale's suppliers' development initiatives: Vale is Brazil's largest domestic mining industry by all standards. It dominates the mining landscape in terms of production, employment, investment and exports. It also has various suppliers development initiatives, aimed at supporting linkages between local manufacturers and service providers, to respond to its procurement needs. Two such initiatives are highlighted:

- a) **REDES** initiative in the region of Para, is managed by a business association (FIEPA) funded by 15 firms operating in diverse sectors such as mining, energy and agri-business. The initiative focuses on SMEs and provides a demand-supply diagnosis, shares information about existing potential and supports the capacity development of potential suppliers. It also provides a range of incentives and facilitates access to Vale's contracts for local firms.¹ It is estimated that the number of firms supplying the mining sector as a result of this initiative increased more than 7-fold, from 216 in 2004 to 1 640 in 2010, despite the fact that suppliers in rural areas have been held back due to constraints related to capital, technical/managerial and high transaction costs due to poor infrastructure.
- b) **Inove** Initiative, set up in 2008, aimed at (i) capacity building and technical training to bridge the skills gap of suppliers and employees, (ii) business development, by promoting interaction between different suppliers along the production chain and providing "preferential" procurement conditions on certain items; and (iii) competitiveness, by providing financial solutions and business incentives to suppliers. The partnership is implemented with a number of strategic stakeholders, namely Sebrae (the Brazilian service to support micro and small businesses); professional associations such as trade associations; national education institutes; financial agencies and local government and authorities. In April 2015, Vale estimated that more than 90% of its purchases were from local Brazilian suppliers and that local content increased in its main Brazilian operations from 54% in 2012 to 63% in 2014.³

Anglo American's PROMOVA project was established in 2012 in partnership with the communities potentially affected by the expansion of the Minas Rio iron ore project. The programme aimed at supporting SMEs in providing goods and services to the firm in responsible and sustainable ways. It aimed to scale up the capacity of the local workforce and local businesses, at providing incentives to local businesses to engage and interact among themselves and provided some financial support by offering innovative options such as invoice discounts or better interest rates for suppliers to access finance through banks where Anglo American has a commercial relationship.

In 2011, **AngloGold Ashanti** created a Supplier Training Programme⁴ in partnership with Sebrae and the Economic and Social Development Agency of Sabará to assess individual management capacity and identify businesses' strengths and opportunities in a number of sectors such as construction, mechanical, electronics, earthworks, machining, transportation and information technology, with a view to offer training to address the gaps.

Notes:

1. Notably by encouraging firms such as Vale to agree framework contracts with construction service providers (ICMM, 2013, p. 45).
2. The objective is to "contribute to the sustainable development of suppliers and to build a positive legacy in the regions where Vale operates".
3. Similarly, it reported to have trained 820 engineers and geologists and 11 700 students from 2008 to 2013. In addition, it reported to have provided some USD115 million in credit lines to suppliers and more than USD 186 million in transactions of materials and supplier kit services between 2008 and 2011. Source: Vale's programme for meeting the skills gap, April 2015.
4. Source: <http://www.anglogoldashanti.com/en/Media/Our-Stories/Pages/Procurement-programme-in-Brazil.aspx>.

⁵⁶

These include Volvo, Komatsu and Caterpillar; Tracbel and Sotreq.

Main properties

149. The mining sector in Brazil is a mature industry and policies have evolved as the realities and demands of the sector changed. The policy orientation in the mining sector stands in stark contrast with that in the petroleum sector, where local content measures are often mandatory, quantitative targets regarding local procurement of specific goods and services as well as employment of local staff. In the mining sector, this approach was abandoned. One of the reasons may be that contrary to the petroleum sector, where the largest firm, Petrobras, is state-owned, Vale, the leading Brazilian mining firm, is a private company.

150. Nevertheless, Brazilian mining firms must be able to demonstrate that not more than one-third of their workforce is composed of foreign nationals and that foreigners do not account for more than one-third of the total payroll. In addition, specific employment requirements are found in some regions in the form of "*condicionantes*". These are social obligations, e.g. quotas on local employment, that firms are obliged to respect in order to obtain a license. Enforcement of these targets poses challenges in some regions, however, since there is no clear definition of "local" and in some cases it suffices that the employee move to the region.

151. Suppliers' development programmes have been used extensively by large mining firms operating in Brazil, in particular Vale. Given their profound understanding of realities on the ground, mining firms helped to conduct a diagnosis of demand and supply to identify opportunities for supplies and related gaps that needed to be addressed. One interesting initiative in terms of suppliers' development, building capacity among SME suppliers and greater transparency of information about opportunities has been managed by a business association funded by 15 firms operating in diverse sectors such as mining, energy and agri-business. This may be a particularly efficient mechanism for increasing capacity among potential suppliers as some inputs and skills are portable across sectors. It may also support a more diversified approach.

152. There is no monitoring mechanism in place in Brazil to assess to what extent certain types of policies have worked better than others and therefore it is difficult to conclude on the effectiveness of different approaches. However, many mining firms report on the impact of their suppliers' initiatives on the community in which they operate. A recent study revealed that in Southeast Para, one of the main regions in which Vale operates, the firm procured 75% of its inputs from Brazilian sources including 22% from the region, which is significant compared to many other developing economies (ICMM, 2013). Vale itself indicates that its local procurement has increased substantially since its suppliers' development programmes were implemented.

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THE CASE OF GHANA

Economic context

153. The Ghanaian economy has performed well since 2000s with an average GDP growth of 6.5% in 2000s to 7.3% in 2013 (WB, 2015). However, the economic growth has recently slowed (3.9% in 2015) due to a fall in gold price, but is expected to pick up in the next years, fostered by improved oil and gas production, increased private-sector investment, improved public infrastructure development and sustained political stability (AOE, 2014). The industry and service sectors are the main drivers of the economy representing respectively 27.7% and 51.9% of the total GDP, while agriculture, although it employs almost half of the labour force, accounts for 20.4% of the total GDP (Ghana statistics, 2016).

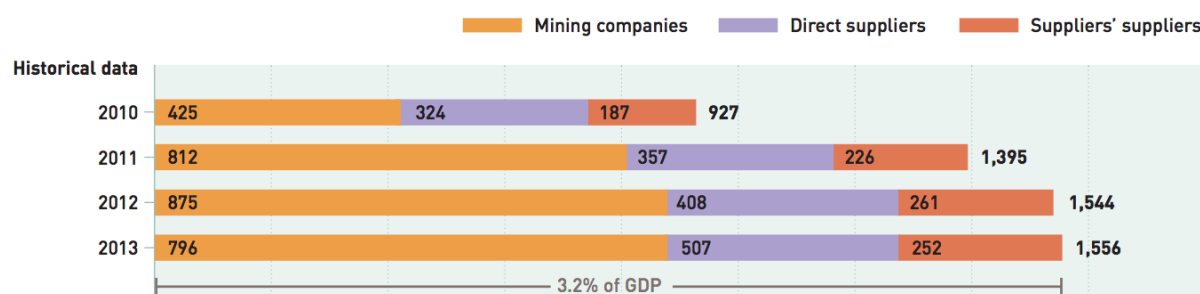
154. Nevertheless, Ghana faces significant challenges: although the economy has benefited from strong growth, it has not translated into proportionate employment growth, especially youth employment. Between 2000 and 2010, employment increased by 3.5% annually compared to an average of 6.5% in economic growth, while youth unemployment has doubled (ICMM, 2015).

Mining in Ghana

155. Ghana is endowed with significant mineral wealth and has a very long mining history. Gold has been the most important mineral, representing 96% of the total mineral revenue in 2013, followed by manganese, diamonds and bauxite. Recent discoveries of significant oil resources have somewhat changed the economic landscape and future prospects.

156. The importance of the mining sector grew significantly following structural reforms to open up the economy in the 1980s. These reforms led to an increase in foreign investment in the mining sector, which in turn created some opportunities for mining support services such as catering, transport, and security (Akabzaa, 2009). In 2013, the mining sector accounted for 50% of FDI, 37% of total exports, 19% of government revenues, 1.7% of GDP (ICMM, 2015).

157. Although the mining industry accounted for only 1.7% of GDP in 2013, the latter contribution is actually bigger if the entire value chain is taken into account. As shown in Figure 1, the mining sector and its value chain, i.e. including the value added by its suppliers and suppliers' suppliers, accounted for 3.2% of GDP.

Figure 1. Direct and indirect value added by the mining sector

Source: ICMM (2015), Mining: Partnerships for Development.

158. In 2013 the mining sector directly employed 1.1% of the Ghanaian labour force which can be explained by the fact that the mining sector is capital intensive but also because of the weak horizontal and vertical linkages created by the sector in Ghana (ICMM, 2015).

Local content in Ghana: legal frameworks and practical applications

159. Since the 1980s, with economic reforms resulting from structural adjustment programmes, the Ghanaian government significantly reduced its involvement in the mining. While the aim was to rehabilitate and foster a stagnating industry, domestic resources were very limited. Policies focused on promoting an enabling business environment that would attract FDI (Akabzaa, 2009).

160. In 1986, Ghana strengthened its institutions supporting the mining sector and promulgated its first Minerals and Mining Law.⁵⁷ The legislation included several tax incentives and diminished the participation of the State in mining activities by restricting the State participation to 10% of mandatory equity participation in all mining investment (with the option of increasing its participation to 20%) (Akabzaa, 2009).⁵⁸

161. In 2006, with a view to give a new impetus to the contribution of mining to the economy, a new Minerals and Mining Act (Act 703) was passed to promote a localisation policy and facilitate production linkages. In particular, section 50(3) of Act 703 of 1986 sought to increase the participation of local labour in the industry. However, the frameworks provided in the legislation were too generic and left the Ghana Minerals Commission with considerable discretion in enforcement (ACET, 2015).

162. The main piece of legislation that aims to deepen local involvement in mining came in 2012 with the passage of the Minerals and Mining (General) Regulations LI 2173 which marked the beginning of local content policies in the mining sector, a major change from previous approaches. Regulation LI 2173 clarifies the interpretation of Mining Act 703 of 2006, by focusing on three areas:

1. Employment and promotion of a local workforce as well as training requirements;

⁵⁷ The Geological Survey Department or the Mines department was strengthened and created the Minerals Commission. The first Minerals and Mining Law was the Provisional National Defence Council Law (PNDCL) 153.

⁵⁸ Key fiscal incentives included generous capital and investment allowances and defined a mineral royalty tax rate based on a sliding rate of 3% to 12% of gross value of mine production, depending on the operating margin of the firm.

2. Procurement of locally produced goods and services; and
3. Additional licensing and reporting requirements.

A monitoring and enforcement mechanism has also been put in place to track progress.

Box 5. Overview of the mining legislation in Ghana

The principal laws that regulate the mining industry are the Minerals and Mining Act 2006 (Act 703) and the following regulations:

- Minerals and Mining (Compensation and Resettlements) Regulations 2012 (LI2175);
- Minerals and Mining (Support Services) Regulations 2012 (LI2174);
- Minerals and Mining (General) Regulations 2012 (LI2173);
- Minerals and Mining Regulations (Health, Safety and Technical) 2012 (LI 2182);
- Minerals and Mining (Explosives) Regulations 2012 (LI2177); and
- Minerals and Mining (Licensing) Regulations 2012 (LI 2176).
- Minerals and Mining Regulations (Health, Safety and Technical) 2012 (LI 2182) establishes environmental, safety, machinery and related guidelines for mining operations.

The principal institution regulating the mining sector is the Minerals Commission, which was established in 1993 under the Minerals Commission Act 1993 (Act 450). Its objectives are to regulate and manage the utilization of the mineral resources of Ghana and to coordinate and implement policies relating to mining.

*Mining legislation is applied equally to Ghanaians and foreign investors, except for provisions relating to small-scale mining of minerals, which is exclusively reserved for Ghanaians.

Source: Adapted from Kimathi & Partners, Corporate Attorneys (2015).

Employment and training requirements

163. Regulation LI 2173 of 2012 sets out employment requirements at various stages of the life cycle of mining projects. These include:

1. At the exploration level, application for licensing and mineral rights must include a proposal for training and employment of local staff.⁵⁹ Details on the proposals must be updated every 5 years.
2. During the production stage, firms must hire a minimum proportion of local workforce in various employment categories. Firms must work with the Mineral Commission to identify positions to be filled by nationals.

164. As summarised in Table 7, with a view to promote local knowledge and minimise expatriates' presence in the mining sector over time, the Regulation imposes some numerical targets for specific categories of staff:

- Unskilled labour and clerical positions are reserved for Ghanaians.

⁵⁹ Firms must provide “*details of ongoing and planned recruitment and training of Ghanaians to replace expatriates*” as well as the percentages of expatriate staff to total number of senior staff. This is a condition for the grant of a mining lease and is applicable to all mining companies **whether already operating or not**.

- Expatriate staff should not exceed 10% of the total of senior staff within the first three years, and 6% after three years. This should be accompanied by a comprehensive five-year plan to replace expatriates with Ghanaians, including training programmes, is to be submitted to the Minerals Commission for review and approval

Table 7. Local employment quotas in the mining sector in Ghana

Regulations	Requirements
For reconnaissance and prospecting license holders	No unskilled labour or clerical staff may be foreign; 10% of skilled labour may be expatriate for the first two years after which there must be no expatriate staff; 5% of technical and supervisory staff may be expatriate in the first four years after which there must be no expatriate staff and for the life of the project up to two management staff may be expatriate.
For mining leases	Not more than 10% of foreign labour for the first three years from the start of the Regulations or mining operations, whichever is later, and; Not more than 6% after that, unless this means that the firm can hire less than three expatriate staff, in which case it may hire three expatriates and if it results in a fraction, the firm is permitted the next whole number.
Quota for immigration for expatriate employment	The Commission will not approve unless it is satisfied that no Ghanaian has the "requisite qualification and experience" to occupy the position.
Cases where additional expatriate employment can be approved by the Minerals Commission	(a) specialised technology is used; (b) training of Ghanaians being carried out requires a longer period than the transition period; (c) a special project including a new mine development, expansion or rehabilitation is to be undertaken, provided that the duration of the project does not exceed three years; or (d) Ghanaians are employed to work as expatriates in the firm's operations in other countries.

Source: from the author, based on CCSI presentation (2014).

Procurement of Locally Produced Goods and Services

165. The 2012 regulation specifies that firms must accord preferential procurement from Ghanaian suppliers to the "maximum extent possible and consistent with safety, efficiency and economy". This requirement applies to all types of firms involved in mining, namely:

1. Holders of mineral rights, who must give preference to materials and products made in Ghana;
2. Service agencies located in the country and owned by citizens; and
3. Firms or partnerships registered under the Ghanaian Company Code or Partnership Act.

166. Local content is not expressly defined in the regulation. All that is mentioned is that firms are required to give preference to:

- Materials and products *made in* Ghana. The rules of origin for qualification are however not clearly articulated;
- Service agencies *located* in Ghana and owned by: citizens, firms or partnerships registered under Ghanaian law. Here the key element is that it is sufficient for firms to be registered. Ownership of capital or local equity is not a requirement; and
- Corporations, "to the maximum extent possible and consistent with safety, efficiency and economy".

When assessing procurement bids for goods or services, tenders with the highest level of Ghanaian participation in terms of ownership and management by Ghanaians and employment of Ghanaians must be selected, where bids are within 2% of each other on price (CCSI, 2014).

Box 6. Definition of "local" in Ghana

While regulations do not expressly define the term "local content", nonetheless, various terms in the legislations point to an interpretation of what "local" and "content" mean in Ghana.

"Citizens" are defined as:

- a) Individuals who are citizens of Ghana;
- b) Partnerships or associations composed exclusively of individuals who are citizens of Ghana;
- c) Bodies incorporated under the Companies Code, 1963 (Act 179), certified by the Minister to be controlled by the Republic, or whose memberships are composed exclusively of citizens; and whose directors are exclusively citizens;
- d) Public corporations established by or under an enactment (Act, Art. 111).

"Localisation" is defined as "*a training programme designed towards the eventual replacement of expatriate personnel by Ghanaian personnel*" (Act, Art. 50). A "localisation programme" includes a procurement plan and means proposals with respect to the employment or recruitment of expatriates, employment and training of Ghanaians towards the eventual replacement of expatriate personnel by Ghanaian personnel and preference for local products, as the context permits (Regs, Art. 28).

Source: CCSI, 2014.

167. In 2014, the Minerals Commission conducted an in depth analysis of the overall supplier capacity of the mining sector and assessed local capabilities (including for SMEs) to respond better to the needs of the mining industry (World Bank, 2015). This process led to the establishment of an initial local procurement list of twenty-nine products⁶⁰, which had significant local procurement potential. However, following extensive consultations with private sector stakeholders and after assessing the capacities of local firms and the availability of materials to meet the demand of the mining firms, it was agreed that a first list, containing eight products⁶¹ of "Ghanaian content", would be published in 2014. The list was subsequently increased to 19 products in the second edition of the procurement list issued in 2015. These products are evaluated to account for 54-60% of all items purchased by mining firms. A third list, this time comprising of the twenty-nine products is expected to be published in December 2017.

Reporting requirements

168. Firms have an obligation to provide a five-year procurement plan, specifying to the extent possible, how firms intend to use local products. The procurement and localisation plans must be approved

⁶⁰ These are: activated carbon; Heavy duty electric cables; Ammonium sulphate; Metal or PVC core trays; Bolts and nuts; Mill liners; Bullion boxes; Motor re-winding and re-furbishing; Calico bags; OTR tyre-re-treading; Cement products/grout; Overalls and work clothes; Fencing, wire and mesh products; Plastic sample bags; Chemicals (caustic soda); Quick lime and hydrated lime; Conveyor rollers/idlers, pulleys; Rock-bolts and split-sets; Cupels and crucibles; Steel products (plate, angles, brackets, sprockets); Explosive supply-emulsion; Ventilation ducting; General and speciality lubricants; Wood products; Grinding media; Yelomine pipe; HDPE and PVC pipes.

⁶¹ Lime, grinding media, HDPE and PVC pipes, cement and cement products, tyre-retreading, general and special lubricants, explosives and caustic soda

by the Minerals Commission and must be revised every year. In addition, firms must report their levels of compliance on an annual basis.

Enforcement mechanisms

169. To address previous challenges with enforcement, the 2012 regulation foresees severe penalties for non-compliance. These can be summarised as follows:

- For non-compliance to an approved localization programme (i.e. the replacement of foreign staff by local staff), the firm must pay one year's salary of the expatriate concerned for each month, or part of each month, that latter would have worked in excess to what was foreseen in the plan. The penalty is expected to be used for the training of Ghanaians for participation in the mining sector;
- Firms that fail to provide a procurement plan within the prescribed timeframe incur a penalty of USD 10 000 per month for the first six months of delay, and after that, USD 10 000 per day that the delay is not respected;
- Firms that fail to submit the report regarding the implementation of the procurement plan incur a penalty of USD 10 000 per month for the first two months of delay, following which an additional USD 10 000 must be paid for each additional day of delay;
- Firms that fail to procure locally as required under the local procurement list must pay the full customs duty on imports of goods as well as a penalty to be determined in local procurement list.

Table 8. Summary of LCPs applicable in Ghana

Type of Requirements	Details of requirements	Applicability in Ghana	Relevant legal frameworks
Numerical requirements	Compulsory requirement to employ % of local labour	For a comprehensive overview, see Table 7	Minerals and Mining (General) Regulations LI 2173 Minerals Commission
	Specific categories of procurement reserved for local suppliers	A list of 8 products have been identified (Lime, grinding media, HDPE and PVC pipes, cement and cement products, tyre-retreading, general and special lubricants, explosives and caustic soda)	
	Permits or licensing requirements	Conditional on plan for training and employment of staff	Minerals and Mining (General) Regulations LI 2173 Minerals and Mining Act
	Ownership requirement: % equity participation	N/A except in small-scale mining which is reserved for nationals	
Monetary requirements	Quota for immigration for expatriate employment	Firms must apply for an immigration quota for expatriates, with the ability to adjust the quota in certain circumstances	Regs, Art. 1
	Preferential price premium for local suppliers	Procurement bids for goods or services with highest level of Ghanaian participation to be given preference, where bids are within 2% of each other on price	Regulations, Art. 2(13)
Capabilities and knowledge development	Requirement for the training of local labour or certification of local suppliers	Firms must submit training place in view of replacement of expatriate staff	Mining Act, Art. 11
Reporting and justification		Firms must state <i>how</i> they intend to train Ghanaians to replace expatriates within a specified timeframe "if available"	Regulations, Art. 1(2)
	Mining firms to report and justify hiring foreign labour or sourcing inputs from abroad	Firms with an approved localization programme must submit an annual report to the Commission showing the level of compliance with the program. Firms must submit reports semi-annually on the implementation of the procurement plan (CCSI, 2014 link).	Minerals and Mining (General) Regulations LI 2173

Source: Adapted from Ramdoo (2015).

Suppliers development: strategic partnerships and private sector initiatives

170. Besides the existing collaboration between the private and public sectors in shaping the mining industry regulatory framework, firms are also engaged in partnerships, which for some aim at building capacities and enlarging the scope of opportunities and activities of Ghanaian suppliers in the value chains.

171. Gold Field is for example working with Tema Steel Limited, a Ghanaian firm that manufactures steel milling balls, to improve its production capacities and standards to make it a reliable supplier - for both Gold Fields and other mining firms (Gold Fields, 2015). This in turn allows Tema Steel Limited to enlarge its market scope from Ghana to Western Africa, and make it more resilient in case of steel market price variations. In this case, this partnership allows Tema to (i) deepen linkages with a lead firm in the gold mining sector - and hence get a better access to knowledge and technology; (ii) improve production standards, which lead both to business development, and higher value products manufacturing; (iii) create further linkages with local SMEs within the mining sector, and contribute to their business and technological development.

172. In this example, and contrary to the majority of partnerships, Gold Fields went beyond providing financial support, to include know-how and technological knowledge transfer to its supplier. This contributes significantly to deepening and strengthening linkages between the mining firms and local suppliers in a sustainable way.

Main properties

173. Ghana's mining sector accounts for a small share of its GDP which is doubled if direct activity is combined with indirect production and activity by the sector's suppliers: the multiplier associated with the mining value chain in Ghana is therefore 1:2.

174. In 2012, new mining regulations instituted employment and procurement targets. Employment targets are strict: all unskilled labour must be Ghanaian and at least 90% of senior management (increased to 94% after three years). However, these rigid requirements include some flexibility, for example if sophisticated machinery is used that needs more specialized skills than can be found locally, or if the training programme to bring Ghanaian skill levels up to speed takes longer than the allotted time, or if Ghanaians are employed in an international firm's operations elsewhere. In any of these cases, the employment quota is relaxed.

175. Procurement mechanisms, on the other hand, can be qualified as best effort. Preferential procurement from Ghanaian suppliers is a requirement to the "maximum extent possible and consistent with safety, efficiency and economy". Tenders with the highest level of Ghanaian participation in terms of ownership and management by Ghanaians and employment of Ghanaians must be selected, where bids are within 2% of each other on price. This implies, however, that supplier firms are competing on price rather than quality or reliability of the services provided.

176. In 2014, in order to prioritize sectors for local procurement, the Minerals Commission conducted an in depth analysis of the overall supplier capacity and produced a list of eight products, accounting for 54-60% of mining firms' purchases of goods, that were deemed promising for procurement from local suppliers. Strengthening suppliers' ability to respond to procurement in these areas through suppliers development programmes, and increased access to finance and technical assistance could increase the positive spillovers from Ghana's mining sector.

177. There are strong mechanisms in place for monitoring and enforcement of local content provisions in Ghana. Firms provide a five-year local procurement plan that is approved by the Minerals Commission. In addition, firms must report their levels of compliance on an annual basis. The regulation foresees severe

penalties for non-compliance with employment targets, and even for non-compliance with reporting requirements. Such strong penalties, if implemented, will reduce firms' incentives to ignore regulation or reporting of their local procurement initiatives.

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THE CASE OF PAPUA NEW GUINEA

Overview of the Mining Sector

178. Papua New Guinea (PNG) has been dependent on mineral exports since the development of large scale mining in the 1970s. Mineral exports typically account for 70% to 80% of total exports over this period. Most recently, mining has been overshadowed by coming onstream in 2015 of a large-scale LNG project.

179. The main mines currently operating include Simberi (gold), Lihir (gold), Porgera (Gold), Tolukuma, Sinivit, OK Tedi (copper and gold), Ramu (nickel), Hidden Valley (gold and silver). A number of projects are also at an advanced stage of development or are beginning including at Yandera, Freida and one of the world's first deep sea mining projects at Solwara 1. In addition, some 280 exploratory licences have been issued, coupled with around 350 outstanding applications for licences to explore.

180. A number of mines have ceased operation, the most notable of which is the Panguna mine in Bougainville. Panguna produced copper and gold from 1972 until 1989, when disputes over the distribution of benefits and environmental damage led to an armed insurrection by landowners. The conflict was eventually settled with an agreement that established an autonomous region in 2000. The conflict has had far-reaching effects for mining operations and policy establishing "the primacy of local over provincial and national interests" within large scale projects in PNG (ERM, 2010).

181. At present, overall policy around the mining sector is in a state of some flux. Amongst recent developments, the government has been working on a new Sustainable Mining Development Policy (SMDP) which is yet to be adopted. The government has also been in the process for some time of establishing a Sovereign Wealth Fund (SWF), although this is understood mainly to deal with the royalties from the new LNG projects. The future of the OK Tedi mine has received particular attention as a result of its complex ownership structure prior to its effective nationalisation in September 2014, in a measure that may have further long-term implications for mining in the country (Hayes, 2014). Around the same time the government ordered a review of all Memoranda of Agreement (MoAs) for currently operating mines.

Local Content Requirements and Initiatives

Policy objectives

182. Policy around mining in PNG recognises the need for foreign investment for the development of mineral deposits due to limited internal capital, technology and expertise; the focus of policy since independence has therefore been on extracting government revenue from the sector and then employing these funds for broader economic development within the country (Banks, 2001).

183. However this approach has evolved over time and through practice in response to tensions including those at Panguna, "with greater emphasis now placed on the landowner rights and local development" (ERM, 2010). As such, PNG now differs from some other countries in that local content requirements – inasmuch as they formally exist – tend to be embedded within "Benefit Sharing Arrangements" (BSAs) that are negotiated and agreed on a project-by-project basis between firms and local communities.

Regulatory frameworks

184. Although they are negotiated with local stakeholders, there is a national legal basis for BSAs and a defined mechanism within national legislation. While the 1992 Mining Act declares that all mineral resources are state-owned, it stipulates that the negotiation of a mining contract between the state and a firm must be accompanied by a "Development Forum",⁶² within which the Benefit Sharing Agreement is agreed.

185. As such the sequencing of events is that an application for a mining lease is made, and then a community level Development Forum is held, before a mine development contract is signed. Although there appears to be no formal requirement for any specific outcome from the Development Forum, in practice the implication and expectation is a Benefit Sharing Agreement, typically through a set of MoAs signed between different stakeholders including national and provincial governments, the mining firm and local communities.

186. A key feature of Benefit Sharing Agreements, previously known as "Integrated Benefits Packages", is that they are broad in scope. As such, they cover areas related to ensuring local content, in terms of providing jobs to the local community and support and preferences for local businesses particularly in the initial construction phases, as well as CSR-type commitments on provision of social services and infrastructure, and also royalty arrangements and compensation for environmental degradation. In the case of the Lihir Gold Mine for example, the Lihir Sustainable Development Plan:

"...covered a wide range of initiatives around capacity building, trust fund payments, compensation, training and localisation, infrastructure and utility development, town and village planning, commercial and contract management opportunities, and social wellbeing" (Kemp et al., 2012)

187. In terms of provisions related to local content, the lack of any obvious overarching principles within the Development Forum and BSA negotiating process make it difficult to assess their relationship to more traditional national local content policies. However, Banks (2001) lists a number of typical benefit streams commonly included in early BSAs, from which it is possible to discern a pattern for the types of initiatives and provisions adopted, including:

- Compensation
- Occupation fees
- Royalties
- Wages
- Equity
- Business Contracts
- Social Investment

188. It is worth noting that ERM (2010) describes BSAs as more akin to transfer of power and benefits from the national level to the community level, rather than imposing any new obligations on firms (who would have to pay the above benefit streams in any case). However, this conclusion may be more

⁶² Specifically section 3 of the Act states that: "A Development Forum shall be convened by the Minister before the grant of any Special Mining Lease (SML) to consider the views of those persons whom the Minister believes will be affected by the grant of that SML and shall be conducted by the Minister according to such procedures as will afford a fair hearing to all participants."

relevant for the overall financial implications, than those that are more closely related to LCPs such as on wages and business contracts.

189. There are a number of reasons why the model makes sense for PNG, where mines are often located in extremely remote areas that are far from the reach of any government services. In essence the community focused model is a response to the fact that the main obstacles to extraction are local land issues and community-level resistance. The Development Forum is therefore an effective mechanism for reaching a consensus between the claims of the national and provincial governments and local communities, bringing about a clarification of landowner issues and clarifying roles, responsibilities and the distribution of mining benefits.

Table 9. Summary of LCPs applicable in Papua New Guinea

Type of Requirements	Details of requirements	Applicability in PNG	Relevant legal framework
Numerical requirements	Ownership requirement: Possibility of state participation	There is no requirement for state involvement. The state has a right, but not an obligation, to acquire, directly or through a nominee, up to a 30 per cent participating interest in any mineral discovery made during the exploration phase.	Mining Act 1992
	Permits or licensing requirements	In order to obtain a mining lease, firms must agree to a local development plan within the context of a Development Forum of local communities and national and local governments. Typically these result in Benefit Sharing Agreements and include the following elements: Compensation; Occupation fees; Royalties; Wages; Equity; Business Contracts; Social Investment.	Mining Act 1992
Consultation with local communities	Prior consultations with local communities before development of activities	Law requires that prior to the granting of a mining license there must be consultation within a 'Development Forum' with local communities and stakeholders, leading in practice to a benefit sharing arrangement (see above).	Mining Act 1992

Insights on the Mining Value Chain

190. To date, very few BSAs have received any in-depth scrutiny,⁶³ or been subject to detailed monitoring of outcomes. The exception is the case of the Lihir agreement where the original 1995 Integrated Benefits Package was revised in 2007 to put greater emphasis on long-term outcomes, with the agreement being subject to a small number of external evaluations.

191. In terms of providing jobs to local communities, it is generally unclear whether employment requirements are set out clearly, the level of requirement specified in each of the BSAs, and if so what mechanisms exist to implement this. However, ERM (2010) notes that "salaries paid to local employees constitute the most widely spread and consistent flows of money into the local community". The OK Tedi mine employs some 5 500 people either directly or indirectly while Lihir mine employs 2 100 full-time employees – of which 34% are Lihirian and 91% overall are PNG nationals.

192. In terms of the preferences given in contracting local suppliers, ERM (2010) also notes that these are the "most sought after economic benefits of the development of large-scale mines". At Porgera for instance, between 1988 and 2000 over 6 000 operations contracts worth 100 million kina (USD 32 million)

⁶³ See for example CCSI's Community Development Requirements: Mapping, database and issues at stake on <http://ccsi.columbia.edu/work/projects/community-development-agreements-frameworks-and-tools/>

were awarded to Porgeran businesses. In Lihir, most of the involvement of business came during the initial construction phase:

"Landowners had created an umbrella firm, the Lakaka Group of Companies, with local shareholders and outside parties to provide goods and services to the mine. Members of the small business associations under the umbrella company had been given preference over non-Lihirian firms. Sixty formally, structured businesses, owned and operated by locals, were awarded construction contracts totalling USD 50 million by the end of 1996, but this declined following completion of the construction phase. [...] Contracts issued to local businesses in 2001 amounted to USD 5.4 million."

193. Following the revised agreement there was also evidence of contracts being awarded to local suppliers, with almost PGK 187m (USD 61 million) in contracts awarded to local suppliers in 2008, including PGK 93m to landowners and landowner joint ventures (See Table 10 below). At the same time, the apparent success of the policy is tempered by the overall conclusion that:

"The reality, however, is that many business contracts issued to local contractors hold more prestige than economic value because of the high costs of operating in PNG, cultural constraints on good business practice and relatively inexperienced business owners. Local contractors are frequently obliged, through lack of business capacity, to enter into joint ventures with external companies, further diluting the value of contracts to the community."

Table 10. Distribution of benefits under the LSDP in 2008

Nimamar Rural	Royalties	3.1%
Local Level Gov't	Special support grants (estimated)	0.9%
Contracts	Landowner contracts	53.9%
	Landowner JV contracts	14.9%
Direct Payments	Royalties (block holders)	2.1%
	Economic plant compensation	0.1%
	Noise, light and dust	0.0%
	Land use rental	0.7%
	Community assistance and donations	1.3%
	Integrated Benefit Package commitments	4.7%
	Lihirian salaries	6.7%
Village development	Grants (Landowner association)	0.3%
	Village development scheme housing	0.8%
	Village development scheme grants	0.4%
	Integrated Benefits Package infrastructure and utility capital projects	10.1%
Total		100.0%

Main properties

194. The Development Forum and Benefit sharing agreement (BSA) process has been relatively effective at involving local communities and fostering a balance between local and national concerns that is an essential prerequisite for mining projects to successfully commence in PNG. It has been a fundamental issue, given the history of mining in PNG, to find consensual agreement with relevant local-level stakeholders, including defining who these are, before attempting any mining operations and obtaining relevant authorisations.

195. A key feature of the BSAs is their bundling of local content requirements alongside other benefits within an integrated package. The aim is to increase opportunities for local participation, and distribute benefits amongst different stakeholders (landowners, the local workforce, local firms, etc.).

196. Since the BSAs are negotiated between mining firms and key stakeholders in remote areas of PNG, these agreements tend to be context-specific. There is little or no harmonization among agreements at the national level. If ill-managed and not well coordinated with national policy objectives, BSAs may lead to outcomes that are sub-optimal at the national—much less at the global-level. This might occur for example if the BSA leads to the contracting of local firms at the expense of more efficient national firms, or the building of local infrastructure that is of little use in terms of the development of the country as a whole.

197. Some of these agreements are far-reaching and may even include policies that are generally implemented at the national level such as royalty rates and payments. This introduces a large element of uncertainty among investors, who may hesitate to invest in PNG if there are no clear indications as to which mining policies may be subject to negotiation with local officials who may have evolving interests.

198. BSAs, like the 2007 Lihir agreement, are a good opportunity to align stakeholders' long-term sustainable development objectives including issues that will come up post mine closure. This has not often proved to be the case however and will be necessary in order to ensure a positive impact.

199. In terms of the effectiveness of BSAs in actually achieving their development outcomes, the picture is rather unclear. Despite the general perception that some benefits have been delivered, most notably on the employment aspects, there are challenges of enforcement. A major problem is that BSA outcomes tend to be poorly monitored, leading to a lack of clarity over whether requirements are actually being met (Filer, 2012).

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THE CASE OF PERU

200. The evolution of the mining industry in Peru has been profoundly shaped by the economic and political history of the country. Successive democratic and military regimes undertook measures that influenced the structure and management of natural resources.⁶⁴

201. The 1990s saw a new political leadership to address the structural weaknesses of the economy, characterised by high unemployment, rising poverty, rampant inflation, chronic balance of payments deficits and unsustainable external debt. A series of structural reforms were initiated to create a more business-friendly environment and open the economy to foreign investors, through the privatisation of state-owned activities, elimination of price controls and most subsidies, reduction of quantitative easing and a unified floating exchange rate. The tax structure was simplified and reformed. Peru's debt was restructured with foreign creditors which helped to increase confidence among potential investors.

202. A new foreign investment law was introduced in 1991 which guaranteed foreign investors non-discriminatory treatment, free exchange convertibility and unrestricted rights to repatriate capital and profits (GATT, 1994). Peru's investment regime complements its trade regime. In September 1991 Legislative Decree No. 668 established the general framework for domestic and foreign trade, guaranteeing the freedom to engage in domestic and foreign trade as a fundamental condition for Peru's development. It also requires the State to ensure that standards and technical regulations do not constitute an obstacle to the free flow and use of goods and services in external and domestic transactions, and prohibits any type of exclusive right or other monopolistic restriction affecting the production or marketing of goods and services. In this sense, the government went from being an active actor (i.e. its participation along the whole mining value chain from prospecting to marketing) to an investment promoter and regulator. In 2003, the last State-owned operation was privatised. The shift in ownership and the new legal framework contributed to the development of the mining sector by attracting investors from around the world (Bastida et al., 2005).

203. New reforms in the 2000s were aimed to complete earlier reforms, and in particular to address new challenges, including internal political and social issues that led to mounting conflicts between mining firms and their surrounding communities.⁶⁵

⁶⁴ One of the key milestones that influenced mining activities was the enactment of the Mining Code in 1950 establishing rules that were very favourable and flexible to encourage private investment. Following this, investments increased into iron ore, lead, zinc, and other minerals, and exports of metals from 21% of total exports in 1951 to over 40% a decade later (Hudson, 1992). However, following the military coup in 1968, the Velasco Regime nationalised the mines, including the largest copper mining corporation, Cerro de Pasco, reversing the momentum created in the 1950s. This was coupled with restrictive business regulatory frameworks, which resulted in low investments, recurrent losses, stagnating production and decline in labour productivity. Violence and strikes destabilised the mining sector and caused major disruptions in supply chains to the mine (WGC, 2011).

⁶⁵ Key reforms included the phasing out of some investment incentives, the integration of Sustainable Development (SD) concepts into the mining legislation, and the imposition of a mining royalty.

204. In 2014, the Ministry of Production of Peru launched the Plan for Productive Diversification (PDP), with the aim of generating new engines for economic growth, decreasing dependency on raw material prices, reducing regional productivity gaps, and achieving long-term sustainable growth rates through diversification of the economy. Promotion of clusters and supplier development are seen as two important programmes for achieving those objectives. However, the Ministry of Production does not consider mining as a key driver for diversification.

205. In 2015, the Ministry of Foreign Trade and Tourism (MINCETUR) launched the National Strategic Export Plan (PENX 2025⁶⁶), that updates the previous plan, in particular adding a competitive approach in order to generate tools for supporting business sectors and promoting the internationalization of Peruvian companies under four fundamental pillars: i) internationalization of companies and market diversification; ii) diversified, competitive and sustainable exportable supply; iii) trade facilitation and efficiency of international logistical chains; and iv) capacity building for internationalization and exporting culture consolidation. Among the sub sectors incorporated in PENX 2025, two of them relate to mining: mining business services and mining equipment supplier.

General economic context

206. Peru is today one of the best performing economies in Latin America, with an annual GDP growth rate averaging over 5% in the last 15 years,⁶⁷ thanks to its solid macroeconomic fundamentals, prudent management of the commodity boom and a sustainable policy reform agenda conducted in the last decades.

207. As a result of the slide in commodity prices and the slowdown of the Chinese economy, growth however decelerated in 2014 to 2.4%. Nonetheless, Peru's economic growth is expected to recover due to an expected increase in mineral production over the next few years despite the weakening of metal prices.

208. Overall, Peru has an attractive business climate for investors⁶⁸ and in 2015, it was ranked as the fourth most attractive emerging economy for investment, behind China, South Korea and Thailand (Bloomberg, 2015). However, there are still challenges to be addressed. Significant progress remains to be made to reduce administrative red tape and the cost of cross border trade.^{69 70}

209. The largest challenge that the mining industry faces is found on a social and political level. The attitude in Peru towards mining has shifted, with a rising call for participation local communities in mine development. This has reportedly created some fears among international investors and has led to significant delays in permit delivery and project development.

⁶⁶. http://ww2.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/plan_exportador/PENX_FINAL30_1_02.pdf

⁶⁷ <http://databank.worldbank.org/data/reports.aspx?source=2&country=PER>

⁶⁸ In the World Bank's Doing Business 2016 Report, Peru was ranked 50th, which placed the country in 3rd place in Latin America, after Mexico (ranked 38th) and Chile (48th) but far ahead of Brazil (116th) and Argentina (121th).

⁶⁹ It still takes on average 26 days to start a business compared to half a day in New Zealand for instance.

⁷⁰ It takes an average of 48 hours to complete compliance procedures to export, estimated to cost USD 50. Procedures to import take longer, on average 72 hours, costing about USD 80 for compliance.

Contribution of the mining sector in Peru

210. The mining sector has been a historically important political and economic player. Peru is the world's 7th largest mining producer given the diversity of its commodities (PwC, 2013). During colonial times, activities were mainly developed for export, contributing significantly to foreign exchange, fiscal revenues and FDI. Most firms were foreign owned and had developed few linkages with suppliers and markets in the rest of the economy (WGC, 2011).

211. The mining sector has been one of the main drivers of Peru's recent economic performance. In recent years, the mining industry has generated on average 58% of total exports,⁷¹ 16% of fiscal revenues and 14.4% of GDP, thanks to favourable commodity prices and the sector's competitiveness (Korinek, 2015). The sector has been one of the largest taxpayers in the country in the last decade, contributing to 25% of total government revenues at its peak in 2007 (Korinek, 2015).

212. Peru has extensive high quality mineral reserves, many of which are still unexploited. It is a regional leader in a number of resources and has a competitive position in the production of a number of metals due to its low direct production costs (labour and energy), high resource grades and competitive shipping costs (McKinsey, 2013). In 2012, Peru was the 3rd global producer of copper, silver, tin, lead and zinc and 5th global producer of gold. The country has a comparative advantage in part due to its low cost of production, including energy, which stands at 50% of that of Brazil and 67% of that of Chile, its main competitors in the region (PwC, 2013).

213. The mining industry is capital intensive and therefore generates fewer jobs than other economic sectors (1.5% of total labour force in 2012, compared to 40% for agriculture for instance). It nevertheless has an important impact due to indirect and induced employment opportunities that result from supply chains and consumption linkages. The ratio of direct to indirect employment is estimated at 1 to 3.2 while the ratio of direct to indirect and induced employment is calculated to be 1 to 9. Therefore, based on this multiplier effect, in 2012, it was estimated that the mining industry accounted for 14% of total employment, direct, indirect and induced combined (McKinsey, 2013).

Legal frameworks in Peru in policy and practice

214. During the early 2000s, in response to social conflicts, the Peruvian government passed several pieces of legislation that aimed to improve the local development of mining regions. Three regulations are particularly relevant:

- a) In 2001, in Law N° 27506 the Peruvian government revised the Canon Minero to distribute 50% of the corporate income tax paid by mining firms to sub-national government entities from the territory in which minerals are extracted.
- b) Under the privatization scheme, Social Trust Funds were created to finance social programmes in the areas close to the concessions. Social Trust Funds receive 50% of the payment made by firms for privatization. Projects supported by the Funds include promoting local entrepreneurs.
- c) In 2003, Local Content was introduced in Peruvian legislation for the first time in Decree 042-2003-EM, known as the Commitment to Sustainable Development. This decree includes a list of commitments that all mining firms must adopt when they undertake mining exploration. Mining firms and their contractors commit to preferentially hiring local people as well as providing training. Equally, they must preferentially purchase local and regional goods and services and support entrepreneurs to promote diversification. This decree establishes that firms are required to

⁷¹ Copper accounted for 40% of mining exports, followed by gold (37%), lead (10%), zinc (5%) and iron (3%).

submit an Annual Consolidated Declaration (DAC for its name in Spanish) on these commitments to the Ministry of Energy and Mines. In addition, local content requirements are part of mining firms' Environment Impact Assessment plans. In addition, the local content clauses of Decree 042-2003-EM were also included in the privatization agreements between mining firms and the government.

Regulatory frameworks

215. The mining industry in Peru is regulated through relatively straightforward mining laws.⁷² The industry is primarily regulated by mining laws and regulations enacted by Peruvian Congress and the executive branch of government (outlined in Box 7). The Mining Law came into effect in 1992, with a particular focus on the need to attract foreign investment in the sector and eliminating of discrimination between domestic and foreign investors. However, since 2000, there has been an increasing emphasis on sustainable development with a number of countervailing laws that have been enacted to that effect (KPMG, 2013). A new mining law was enacted in 2011, essentially aimed at generating more revenue from the sector, with a view to improve the social conditions in the poorest regions.

216. In accordance with the Mining Law, mining activities (excluding prospecting, commercialisation and storage outside the area of mining operations) can only be carried out under the concession system. Holders of concessions are granted the exclusive and excluding right to carry out a specific mining activity, within a specific geographical area.

Box 7. Relevant policies and programmes in the mining sector

General Framework

- General Mining Law, Consolidated Text by Supreme Decree N° 014-92-EM
- Prior Consultation Law: 2011
- Canon Minero (revised in 2001 in Law No. 27506)

Investment related rules

- Article 62 of the Constitution (1993) establishes equal rights for domestic and foreign investors who enter in agreement with Government
- Article 19 of Legislative Decree N° 662 (promotion of foreign investment) allows investors unrestricted access to all economic sectors;
- Legislative Decree N° 757 (framework for the development of private investment) relates to the growth of private investment;
- Legislative Decree N° 868 (of November 1996 promotes private investment in public infrastructure and utility works (relevant for mining infrastructure investments) and modifies some articles of General Mining Law, Consolidated Text by Supreme Decree N° 014-92-EM;
- Legislative Decree N°. 708 of November 1991 (relevant for the promotion of investment in mining);
- Legislative Decree N°. 818 of April 1996 (provides incentives for investment in natural resources);
- Supreme Decree N° 018-92-EM (simplified legal procedures to obtain mining rights);
- Supreme Decree N° 042-2003-EM (established prior commitment as a prerequisite for the development of mining activities and additional rules)

Fiscal and trade related rules

- Supreme Decree N° 047-2002 reduces duties paid on capital goods to be used for exploration and production of certain minerals;

⁷² The Ministry of Energy and Mines (MINEM) has the authority to regulate mining activities within the Peruvian territory. MINEM also grants mining concessions to local or foreign individuals or legal entities, through a specialized body called the Institute of Geology, Mining and Metallurgy (INGEMMET).

- Law N° 27623 returns sales tax on capital goods for the mining sector;
 - Supreme Decree No. 15-2004 establishes rules for the decentralized rules of revenues from mining sector;
 - Supreme Decree 066-2005 was established to administer CSR in the mineral sector;
- A new tax framework was approved in 2011, establishing the fiscal regime for mining

Source: USGS (2012).

217. Article 63 of the 1993 Constitution stipulates that foreign investors have the same rights as national investors (Baker and McKenzie, 2013), with one restriction, namely, foreigners are not allowed to acquire or possess mines, lands, forests, water, fuels and energy sources within 50 miles of the border, unless an exception is declared by Supreme Decree based on a public necessity cause or because of national interest.

218. In April 2012, the Government passed a “Prior Consultation Law”, requiring prior consultation of Indigenous communities before any infrastructure or mining or energy projects can be developed in their areas.

Labour market regulations

219. Regulations governing the labour market are defined in 2010 Labour Procedure Law in addition to what is required under various other regulations, such as the Law of productivity and labour competitiveness, the procedural labour law, the law on collective labour relations, the law on days of work, hours, and overtime; the regulations on safety and health in the workplace; and other sector-specific legislation and ratified international conventions. All employment agreements must be registered with the Ministry of Labour.

220. With respect to recruitment of foreign workers, not more than 20% of an employer’s local workforce may consist of foreign employees. Additionally, wages paid to foreign employees may not exceed 30% of total payroll cost. Such limits can be waived for professionals and specialized technicians or management personnel of a new entrepreneurial activity or in case of a business reconversion.

221. All mining firms and their contractors are obliged to promote local hiring according with the Commitment to Sustainable Development legislation. However, this norm leaves this commitment very vague in that it does not set up percentage requirements nor penalties or incentives for complying with or not fulfilling this obligation. Consequently, each firm has its own interpretation of local and its own policy for local hiring.

Regulations regarding production

222. The Mining Law requires holders of mining concession to meet a minimum annual production target no later than the expiration of the sixth year.⁷³ If the target is not reached, the holder of the mining concession is obliged to pay a non-production penalty or credit a minimum investment.⁷⁴ Failure to pay the

⁷³ The target is equivalent to one Tax Unit (S/.3 700) per year and per hectare for metallic mining concessions and to 10% of one tax unit (approximately S/.370) per year and per hectare for non-metallic mining concessions. The minimum annual production target must be reached the first semester of the 11th year following the year on which the mining concession was granted (Baker & McKenzie, 2013).

⁷⁴ The penalty is equivalent to 10% of the corresponding minimum annual production per year and per hectare until the year on which the holder reaches such production, provided it occurs before the 15th year as from the granting of the mining concession.

validity fee or the non-production penalty for two consecutive years can lead to the forfeiture and cancellation of the mining concession.

223. The Commitment to Sustainable Development legislation introduced a requirement for mining firms and their contractors to preferably buy local products and services. These obligations have also been included in privatization contracts.

Table 11. Summary of LCPs applicable in Peru

Type of Requirements	Details of requirements	Applicability in Peru	Relevant legal framework
Preferential employment	Compulsory requirement to employ % of local labour	Foreign employees should not exceed 20% of total personnel. Wages paid to foreign employees should not exceed 30% of total payroll cost.	Recruitment of Foreign Workers Law
	Permits or licensing requirements	All mining firms must commit to prioritizing local hiring and to buying local goods and services prior to getting a concession	Commitment to Sustainable Development Decree
	Foreign ownership	Only restriction: foreign firms cannot acquire or possess concessions, within 50 miles of the border unless an exception is declared by Supreme Decree based on a public necessity cause or because of national interest	Constitution
Production requirements	Minimum annual production target	Concessions holders are required to meet a minimum annual production target. If the minimum target is not reached, a penalty equivalent to 10% of the corresponding minimum annual production per year is applicable. Cancellation of the mining concession in case of failure to pay the validity fee or non-production penalty during two consecutive years.	Mining Law
Reporting and justification	Mining firms to report and justify hiring foreign labour or sourcing inputs from abroad	Mining firms to report progress on local hiring and local purchases annually	Annex IV of the Annual Consolidated Declaration (DAC)
		Extractives industry Social Trust Funds to report quarterly	Ministry of Energy and Mines
Prior consultations	Prior consultations with Indigenous communities before development of activities	Employment agreements must be registered Law requires prior consultation with Indigenous communities before the development of any project. The communities have the right to object to the development of the activity	Ministry of Labour Prior Consultation Law

Linkages with the wider economy

224. Unlike in Brazil, the mining industry is largely owned by foreign firms. When they started their operations, most core supplies were imported, and to a large extent, professional and technical labour were foreign. Today, Peru has built its capabilities in certain technical fields although its skills levels continue to improve. For instance, Peru has reached maturity in areas such as the management of engineering firms; most major mining firms can obtain high-quality engineering services locally at highly competitive rates. The learning curve for local firms was enhanced by joint projects with large engineering, procurement, construction and management (EPCM) players. It has also carved its niche in certain types of construction services required for the safety of the mining industry (such as modern scaffolding systems), which also serves other economic sectors, in particular related to infrastructure. As a result, local firms have learned to

compete internationally. Firms continue to have recourse to foreign consultants in the industry for support on specific technical aspects.

225. Unlike Brazil, Peru does not have a large industrial base, which was a disadvantage when developing mining-related manufacturing firms. However, some international firms have settled in Peru to facilitate the sales of specialised plants and machinery or to manufacture their own machines and components in order to provide tailor-made services to the mining industry. The remoteness of mining sites and the need to design some equipment to respond the specific mine requirements in Peru provided opportunities for local suppliers.⁷⁵

226. A study conducted by *Instituto Peruano de Economía* (IPE) claimed that 60% of the supply chain in Peruvian mining was of Peruvian origin, including some fairly sophisticated pieces of engineering equipment (ICMM, 2013).

Box 8. Gold mining and supply chain in Peru

In Peru, the four largest gold mining firms are Barrick Gold, Gold Fields, Newmont and Buenaventura. A recent study conducted by the World Gold Council, indicated that the four mines' total procurement from national suppliers (including local agents of international firms) averaged 90% of their expenditure from 2007 to 2010, at times exceeding twice the total taxes paid by these mines. Capital expenditure through national suppliers was estimated to be between 25% and 40% of total expenditure. Expenditure on services supplied by local communities was between 15% and 20%.

The report however does not give the breakdown of the purchases to ascertain how much of the expenditure actually stayed in Peru or how much of the value added was created by local businesses. For example, most heavy equipment is imported given the complexity of firms' requirements. Yet much of the installation and ongoing maintenance work for this equipment, requiring highly skilled labour, is carried out by Peruvians.

Despite the capital-intensive nature of the industry, the World Gold Council study indicated that the four mining firms provided about 4 000 direct jobs per year from 2005 to 2014, which created another estimated 4 000 indirect jobs during the same period. Although this is small in relation to total employment creation in the country it is nevertheless significant for local communities.

Source: World Gold Council (2012).

227. Despite abundant and trainable labour, skilled labour shortage is a serious challenge in certain fields in Peru (McKinsey, 2013). In 2013, it was said to have reached a critical level in part due to the limited graduate turnover from mining schools. Peru faced deficits in three categories of skills: (i) general skills that compete with other economic sectors such as infrastructure and construction facing similar growth as the mining sector; (ii) technical and operational skills with specific competencies in mining and (iii) professional skills, which are in high demand globally.

Strategic partnerships

228. During the last decade, many mining firms have put in place suppliers' development programmes to foster the expansion of local suppliers to meet their input needs. In general, these include supplier recruitment for specific inputs and the development or training and support at various levels. Although official statistics on local entrepreneurs created by mining supplier programmes are not available, it is

⁷⁵ For example, truck bodies must be designed specifically to suit each operation, taking into consideration the density of the material, the capacity, the specific mine requirements or limitations and the cost.

estimated that these programmes have benefitted at least to 3 000 SMEs (Balcazar, 2015). Examples of products and services which have been established by local suppliers in partnership with mining industries include provision of environmental and construction services, transport and construction services, operation and maintenance of water supplies in remote areas and supply of safety apparel and garments.

Box 9. Three examples of suppliers development programmes

Barrick Gold, one of the largest gold mining firms in Peru, has set up a Lean Supplier Program to assist its suppliers and contractors to identify opportunities to improve performance in specific areas, namely: safety, environment, social responsibility, continuous improvement, timely delivery, invoicing and inventory control. The firm set up internal policies and procedures to increase safety and environmental standards to ensure sustainable production practices. Suppliers are trained to meet those standards and successful ones receive an ISO 14001 certification, which recognizes their capabilities to respond to the requirements of the firm.

In 2012, **Antamina**, the largest producer of copper and zinc in Peru, started a programme named Developing Suppliers of Excellence for the Mining Industry of Peru. The objectives were two fold, namely to improve the productivity of the mining firm and to develop the capacity of suppliers to provide increasingly complex services for the industry and, potentially, for other industries as well. The Programme had an interesting model, which consisted of putting the challenge to local suppliers to identify and find innovative solutions and approaches to resolve High Value Challenges, i.e. existing operational problems, inefficiencies or anomalies faced by mining operations. The firm offered interested and capable suppliers the opportunity to co-design these solutions, which led to the development of cooperative relationships therefore changing the nature of engagement with suppliers from a purely transactional one. Following a process of strategy selection, the Logistics and Operations Departments then offered the opportunity to chosen suppliers to test their solutions before awarding contracts.

Gold Fields La Cima's Cerro Corona mine in Hualgayoc, Cajamarca, continues to work on improving sources of supply and to support the efforts of contractors and local suppliers to build capacity. As the first results of the Providers Strengthening Program underway are being reviewed, it is expected that the Contractor Assessment Program will be expanded, incorporating 75% of the main contractors of the operation. So far, 60 local enterprises are certified to be compliant with standards of efficiency and security, which enables them to offer their services to Cerro Corona directly or indirectly through specialized contractors. Gold Fields La Cima has also promoted training for local providers and is currently working with two merchant associations that encompass 35 suppliers. Working groups established with employers in the area of direct influence promote constant communication and seek additional opportunities for cooperation and capacity building.

Sources: WGC (2012); Antamina, Supplier of Excellence Report (<http://www.antamina.com/en/sobre-antamina/quienes-somos/iniciativas-de-excelencia/proveedores-de-excelencia/>); http://expoferia.peru2021.org/2015/stands/gold_fields/descargas/Brochure_Responsabilidad_Social.pdf

Main properties

229. Peru has gone a long way to becoming a significant player in the mining sector. Since the 1990s, its open business environment has facilitated the entry of significant foreign investments, in particular in its copper and gold sector.

230. Peru does not have specific local content targets although mining firms agree to prioritize local hiring and procurement and report on their progress. There are, however, local employment quotas that apply to all firms: not more than 20% of jobs and 30% of total payroll can be accorded to non-Peruvians.

231. Although not always considered among local content initiatives, Peru implements minimum production requirements of mining firms in order to continue to hold concessions. Although this is implemented in order to stimulate production in the sector, such requirements ensure a minimum level of economic activity in the mining area; outcome therefore is to ensure a minimum level of local engagement. Mining concessions holders are required to meet a minimum annual production target. If that minimum target is not reached, they are subject to a penalty equivalent to 10% of the minimum annual production in

that year. Failure to pay the non-production penalty during two consecutive years results in the cancellation of the mining concession.

232. Mining firms active in Peru have implemented suppliers' development programmes similar to those in place in other countries in the region such as Brazil and Chile.⁷⁶ These programmes particularly leverage the proximity to highly competitive firms and allow capacity upgrading in accordance with the needs of those firms. In particular, processes in which suppliers are invited to offer solutions to recurrent problems and suppliers training programmes in which they increase their skills and obtain new certifications have benefits for both local suppliers and large mining firms. These programmes foster technological spillovers that can bring innovative techniques and methods and can transform the buyer-supplier transaction into a cooperative relationship.

⁷⁶ See previous chapter on Brazil, and Korinek (2013).

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THE CASE OF SOUTH AFRICA

233. The mining industry has been a driving force of the South African economy for the last 150 years. Since the discovery of diamonds in 1867 and subsequently of gold, the mineral sector has contributed to make South Africa the most advanced economy in Africa. Today, despite growing economic challenges, South Africa is a well-established global player, both in the value of its mineral endowments, and in terms of industries and suppliers.

234. South Africa is the world's largest producer of platinum, vanadium, manganese, vermiculite and chrome and the second largest producer of ilmenite, palladium, zirconium and rutile. It is the third supplier of coal and a major producer of iron ore and gold (United States Geological Service, 2013).

General economic context

235. The South African economy has made tremendous strides in the two decades that followed the democratic transition. The country managed to peacefully embrace economic stability and to improve living conditions for its citizens. It has developed strong institutions and integrated successfully the global economy as a key African economic powerhouse. Between 1994 and 2012, growth rates averaged 3.8%, in real terms, which were significantly higher than the 1.4% registered between 1980 and 1993 (IDC, 2013).

236. The economic structure of South Africa has changed significantly. The economy is diversified, largely dominated by the tertiary sector which accounted for 69% of GDP in 2012 (IDC, 2013). The tertiary sector is largely driven by the financial sector, which accounted for 22% of total GDP in 2012. The secondary sector is the second pillar of the economy, despite a continued decline, from 27.7% in 1994 to 19% in 2012. The manufacturing sector dominated this pillar with a contribution of 12.4% to overall GDP in 2012 (IDC, 2013). The mining sector represented 9.3% of GDP, while agriculture contributed to 2.6% of GDP in 2012 (IDC, 2013).

237. Since the economic crisis of 2008, the economic situation has worsened, pointing to the pressing need to address numerous structural challenges. Real GDP growth rates slowed to 1.9% in 2013 and 1.3% in 2014 (IMF, 2014). Growth in 2015 is forecast at 2%, benefiting from the improved global economic situation, stronger demand from emerging partners and lower oil prices (AOE, 2015).

238. Despite freeing the population from apartheid, South Africa remains one of the most unequal societies, with significant disparities in labour income and wealth, although poverty levels have significantly decreased in the last 20 years. In 2014, unemployment was as high as 25% (49% among the youth population) and was highest among the black population, reflecting the educational, skills and spatial mismatches that are yet to be addressed to bring the transition to the next level of development (IMF, 2014; AOE, 2015). Other important bottlenecks that negatively impact growth include inadequate energy supply, insufficient transport networks, skills shortage and tense industrial relations reflected by persistent strikes and weak domestic demand (AOE, 2015).

The mining sector in South Africa

239. In 2013, the mining sector accounted for 9% of GDP, 12% of total investment, 30% of merchandise exports and 8% of total non-agricultural employment (South Africa Chamber of Mines, 2014).

240. The relative share of the mining sector has declined in the last 20 years for a number of reasons. First, the South African economy is a well-diversified economy and the growth of secondary and tertiary industries have, over time, dwarfed the contribution of the mining sector to the overall economy. But the decline, in particular in recent years, is also explained by a slump in commodity prices, some country-specific factors such as regulatory uncertainty, infrastructure constraints and other issues affecting investment by mining firms. Despite this, mineral resources remain a key sector of the South African economy, making a significant contribution to economic activity, job creation and foreign exchange earnings.

241. South Africa has a long experience in the mineral sector and has developed, over time, significant expertise in mining and mining related supply industries (upstream linkages). It counts today a number of globally competitive suppliers and has developed clusters of firms to provide world-class goods and services (Kaplan, 2011). It is estimated that 89% of spending by mining firms is local. Additionally, local content of exports of mining equipment is estimated at 90% as a result of South Africa's dense network of suppliers which are global leaders in a number of activities such as underground locomotives, mining fans or submersible pumps as well as a number of services such as geological services, shaft sinking and turnkey new mine design and operation services (UNECA, 2013).

242. South Africa has placed increasing focus on local content by laying out specific requirements for local procurement, employment, and firm ownership to historically disadvantaged individuals. Firms need to report performance on those requirements annually through a scorecard. A mature mining sector and rising unemployment were among the main factors driving policies towards finding new economic activities to reinvigorate the economy's growth. The legal framework is quite prescriptive and non-compliance may lead to license suspension or cancellation.

243. Recent years have seen a dual policy orientation, with measures to continue to support upstream supply chains while at the same time stimulating downstream beneficiation. Downstream beneficiation policies are featured in the broader industrial policy framework, with an identified five value chains.⁷⁷ This requires other complementary efforts to address challenges such as infrastructure, high energy prices, skills shortages and declining research-industry linkages.

LCPs: Legal frameworks and practical applications

244. Despite the mining sector's significant contribution to employment, creating more sustainable economic linkages has become a priority as the country seeks to find a new economic model to address its weak economic performance and rising unemployment.

245. To redress the economic situation, South Africa has embarked on a new growth path⁷⁸ in an attempt to transform and build an integrated economy, enhance growth, employment creation and equity.⁷⁹

⁷⁷ These are energy, iron and steel, pigment and titanium, autocatalytic converters and diesel particulate filters and jewellery fabrication.

⁷⁸ Six pillars of the new growth path are (i) significant *investment in infrastructure* in five key areas namely: energy, transport, communication, water and housing; (ii) support for *beneficiation in the mining sector*

The role of the mining sector is particularly underscored, with particular emphasis on the minerals beneficiation strategy,⁸⁰ approved in 2011,⁸¹ that lays the basis for economic linkages and diversification using mineral resources. This strategy is largely focused on downstream linkages.

Mining regulatory frameworks

246. The mining and minerals policy frameworks that regulate mineral exploration, mining, beneficiation and related downstream industries are based on the Constitution of South Africa. Relevant laws include the Mineral and Petroleum Resources Development Act, No. 28 of 2002 (MPRDA), Broad Based Socio-Economic Empowerment Charter for the South African Mining Industry (the Mining Charter) and the Codes of Good Practice for the Minerals Industry (Mining Code).⁸²

247. The Mineral and Petroleum Resources Development Act (MPRDA) of 2002 (Act 26 of 2002⁸³) was enacted with the aim to conduct significant reforms in the mining industry of South Africa following the democratic transition. It came into effect in 2004 with the aim of establishing an enabling environment to foster the development of the mining industry and to transfer sovereignty to the State over all its mineral and petroleum resources. The main objectives of the act are:

- To facilitate equitable access to and develop mineral resources;
- To promote substantial and meaningful economic participation of historically disadvantaged population; and
- To ensure that holders of mining rights contribute to socio-economic development of areas in which they operate.

248. Socio-economic empowerment, as defined in the MPRDA is supported by the following laws:

- The Preferential Procurement Framework Act (No. 5 of 2000);
- The Employment Equity Act (No 55 of 1998);

towards the final manufacture of consumer and capital goods; (iii) *manufacturing and re-industrialisation* through innovation, skills development and reduced input costs in the economy; (iv) *green economy*, with emphasis on technologies for solar, wind and biofuels; (v) *agriculture*, to address high input costs and upscaling processing and export marketing; and (vi) support to *tourism and other high-level services*.

⁷⁹ Key policy instruments are the National Development Plan 2030 and the industrial Policy Action Plan (IPAP) 2013/14 – 2015/16, designed to prevent industrial decline and support the growth and diversification of the manufacturing sector.

⁸⁰ The White Paper on Minerals and Mining Policy for South Africa of October 1998, noted that the new policy would involve the promotion of secondary and tertiary mineral-based industries aimed at adding maximum value to raw materials. Section 26 of the Mineral and Petroleum Resources Development Act (MPRDA) noted that the Minister could initiate or prescribe levels of beneficiation of minerals in South Africa.

⁸¹ Available on <http://www.gov.za/documents/download.php?f=147564>

⁸² Other legal instruments relevant to the mining sector include the Precious Metals Act 2005 (Act No.37 of 2005); the Diamond Amendment Acts, 2005 (Act No. 29 of 2005 and Act No. 30 of 2005); the Mine Health and Safety Act and related regulations; the Geoscience Amendment Act Regulations; the Mineral Technology Act (Act No. 30 of 1989). These do not have specific requirements regarding local content.

⁸³ Available at <http://www.dmr.gov.za/publications/summary/109-mineral-and-petroleum-resources-development-act-2002/225-mineraland-petroleum-resources-development-actmprda.html>

- The Competition Act (No. 89 of 1998) including Amendment Act No. 35 of 1999 and subsequent amendments; and
- The Skills Development Act (No. 97 of 1998), Skills Development Levies Act of 1999 and the National Skills Development Strategy.

249. To give effect to the legislation, section 100(2) (a) of the MPRDA has led to the development of the Broad-Based Socio-Economic Empowerment Charter for South African Mining and Minerals Industry. Adopted in 2004⁸⁴ and amended in 2010, its objective is to correct socio-economic imbalances created under the apartheid system, which prevented historically disadvantaged South Africans (HDSAs)⁸⁵ from benefiting from the means of production. A system of *scorecard* was put in place in 2004 to give effect to and monitor the provisions contained in the Mining Charter and was strengthened in 2010 to quantify the minimum thresholds and targets to be attained within a 5-year period for the following priorities.

250. In addition to the above, a Code of Good Practice for the South African Mineral Industry⁸⁶ were published in 2009 to set out administrative principles in order to facilitate the effective implementation of the minerals and mining legislation and enhance the implementation of the Broad-Based Socio-Economic Charter applicable to the mining industry. The Code provides an overview and confirmation of the existing mineral and mining policy in place. It also defines ethics of conduct to ensure the Mining Charter is implemented in good faith and to prevent abuses such as fronting practices and opportunistic behaviours that may divert the potential benefits from the targeted stakeholders.⁸⁷

Key local content requirements in the South African legal frameworks

251. South Africa's local content experience is unique given its history with apartheid. Following the democratic transition and in order to address the inequality created under the apartheid regime, South Africa established a programme to foster Black Economic Empowerment (BEE, and later Broad-based Black Economic Empowerment, BBEE), implemented through very specific measures and targeting all economic sectors.⁸⁸ According to the Mining Charter, "local" is understood as procurement within the South African national borders.

⁸⁴ Available at <http://www.dmr.gov.za/publications/summary/24-mining-charter/571-gg-26661-miningcharter-13-aug-2004.html>

⁸⁵ Historically Disadvantaged South Africans (HDSA) refers to any person, category of persons or community, disadvantaged by unfair discrimination before the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) came into operation.

⁸⁶ Available at http://www.saflii.org/za/legis/consol_reg/maprda28o2002rangnr446895.pdf

⁸⁷ For example, the Code of Good Practice defines practices considered fraudulent. Such practices include situations where local stakeholders may be appointed to a position but discouraged or inhibited to participate in core activities; economic diversion, where economic benefits received do not flow back to the local stakeholder in the ratio specified in the legal document; and opportunities intermediaries which are enterprises that have concluded agreements with mining companies with a view to leverage the former's BBEE status.

⁸⁸ The Government also passed Guidelines on how to calculate local content for public procurement using a specific mathematical equation. This followed from the Local Procurement Accord in 2011 that was a jointly created public and private commitment to improving local procurement in core sectors of the economy.

252. Measures include procurement preferences, employment preferences, and management and ownership. Table 12 summarises the key LCPs applicable to the mining sector. Most measures are subject to compulsory targets, on which firms have to report regularly.⁸⁹

Table 12. Summary of LCPs applicable in South Africa

Type of compulsory Requirements	Details of requirements	Applicability in South Africa	Relevant legal framework
Numerical requirements	Compulsory requirement to employ % of HDSA (Employment equity)	Diversification of the workplace to include HDSA by 2014 as follows: Top management (board): 40% Senior management: 40% Middle management: 40% Junior management: 40% Core skills: 40% Women in mining: 10%	Scorecard for BBSEE Charter for South African Mining ¹
	Procurement and enterprise development	Procurement spent on BEE entities by 2014: Capital goods: 40% Consumables: 50% Services: 70%	Scorecard for BBSEE Charter for South African Mining
	Ownership requirement: Minimum target for effective HDSA ownership	Compliance by 2014 Meaningful economic participation: 26% Full shareholder rights: 26%	Scorecard for BBSEE Charter for South African Mining
Monetary requirements	Enterprise development fund	Annual spend on procurement from multinational suppliers: 0.5% by 2014	Scorecard for BBSEE Charter for South African Mining
Capabilities and knowledge development	Requirement for local capacity development	Developing requisite skills, including support for South Africa based research and development initiatives intended to develop solutions in exploration, mining, processing, technology mining, beneficiation as well as environmental conservation HRD expenditure as percentage of total annual payroll (excluding mandatory skills development levy) by 2014: 5%	Scorecard for BBSEE Charter for South African Mining
Reporting and justification	Mining firms to report compliance with the charter for the calendar year	Documentary proof of receipt from the department to be submitted on an annual basis	Scorecard for BBSEE Charter for South African Mining
R&D: Use of local research facilities for sample analysis	Utilisation of South African research facilities for analysis of samples across the mining value chain	100% of samples analysed in South African facilities by 2014	Scorecard for BBSEE Charter for South African Mining

Note: 1. <http://www.dmr.gov.za/publications/summary/108-minerals-act-charter-and-scorecard/130-scorecard-mining-charter.html>

Source: Scorecard for the broad-based socio-economic empowerment charter for the South African Mining Industry (2014). Table adapted from Ramdoo (2015).

253. The scorecard explicitly refers to five criteria relevant for local content for the upstream part of the supply chain in order to improve the participation of local stakeholders, correct historical imbalances and improve living conditions of the local community.⁹⁰ These are:

⁸⁹ Most of the targets refer to Historically Disadvantaged South Africans which comprises blacks, “coloureds”, Indians and other Asians that have been in South Africa before 1994. The racial makeup of the working age population of South Africa in 2015 was: 78% black, 9% coloured, 9% white, 3% Indian or other Asian. Historically disadvantaged groups are generally defined therefore to consist of about 90% of the population of South Africa.

⁹⁰ Seven criteria are explicitly defined but two fall outside the scope of this study. These are (i) ownership participation; (ii) employment equity (iii) human resource development; (iv) preferential procurement; (v) local community development; (vi) beneficiation; and (vi) housing and living condition standards. Beneficiation and housing and living conditions standards fall outside the scope of this study.

1. *Ownership participation* by HDSA in existing or future mining, prospecting and exploration operations, measured as voting rights, economic interests and net value.^{91 92} HDSA ownership is defined as meaningful economic participation which has the following attributes:
 - a) Ownership by HDSA is a minimum of 25% + 1 vote
 - b) HDSA ownership comprised of BEE entrepreneur, Communities and Workers (including Employee Share Ownership Schemes)
 - c) Barring any unfavourable market conditions, evidence of flow of dividends to HDSA shareholders.

Table 13. Ownership

Category	Mining Charter description	Target	Compliance by 2014
Ownership and Joint Ventures	Firm to achieve HDSA participation in terms of ownership for the equity or attributable units in production of 15% in HDSA hands within 5 years and 26% in 10 years	Voting Rights	26%
		Economic interests	26%
		Net value	26%
Management control	The importance of workplace diversity and equitable representation at all levels as a catalyst for social cohesion, transformation and competitiveness of the mining industry	Board participation	Demonstrable HDSA fiduciary participation
		Executive committee	40%

Source: Codes of Practice (2009).

2. *Employment equity requirements*: The Mining Charter emphasises “the importance of workplace diversity and equitable representation at all levels as a catalyst for social cohesion, transformation and competitiveness of the mining industry”. Two conditions are required to achieve this objective:
 - a) Management control, with an increasing participation at board level and in the executive committee
 - b) Employment equity, at various levels occupational levels, must be defined. Firms must prepare a plan to meet the targets for a period of 5 years and must publish and report on an annual basis on progress made.

⁹¹ Voting rights and economic interest are expressed as a percentage held by HDSA in relation to the total within that measured entity.

⁹² Net value means the value of the Equity Instruments held by HDSA's determined on the date of measurement less the carrying value of any acquisition debts of the relevant HDSA Participants on the date of measurement expressed as a percentage of the value of the Measured Entity on the date of measurement.

Table 14. Employment equity requirements

Category	Mining Charter description	Target	Compliance by 2014
Employment Equity	Following threshold applies.	Top management	40%
		Senior management	40%
	Firm to publish its employment equity plan and report on its annual progress in meeting that plan	Middle management	40%
		Junior management	40%

Source: Codes of Practice (2009).

3. *Human resource development and capacity building requirements:* In South Africa, the mining industry is required to conduct regular skills gap assessments and development to ensure that there is enough supply of requisite skills at various levels of competencies. To this end, the HRD element was introduced as a compulsory requirement to strengthen workforce capabilities to place the country on a more competitive trajectory.

Table 15. HRD requirements

Category	Mining Charter description	Target	Compliance by 2010
Human Resource Development	Firm to offer every employee the opportunity to be functionally literate and numerate by the year 2010; Employees offered training opportunities	HRD expenditure as a percentage of annual payroll spend	5%

Source: Codes of Practice (2009).

4. *Preferential procurement and enterprise development:* Mining right holders are encouraged by the Mining Charter to procure a percentage of their capital goods, consumables and services from compliant BEE suppliers.

Targets for preferential procurement were set over ten years, with specific targets set for the first five years (starting in 2004, when the Mining Charter was implemented) and increasing targets for the next five years.

Table 16. Preferential procurement requirements

Category	Mining Charter description	Target for BEE procurement spend from local suppliers	Compliance target years 0 - 5	Compliance target years 6 - 10
Preferential procurement	Mining firms to give HDSA's preferred supplier status	Spend on <i>capital goods</i>	20%	40%
		Spend on <i>services</i>	50%	70%
		Spend on <i>consumables</i>	10%	50%
		Spend from any of the following suppliers as a percentage of Total measured Procurement spent:		
		(a) suppliers that are more than 50% black owned, (b) suppliers that are more than 30% black woman owned	15%	20%

Source: Codes of Practice, 2009

Suppliers development: strategic partnerships and private sector initiatives

254. South Africa has a developed suppliers' network in goods and services. This has been supported by mining firms leading initiatives such as suppliers development programmes to help local SMEs develop their prospects to be able to secure tender opportunities and hence help them to compete with larger vendors.

Box 10. Examples of private initiatives to support suppliers' development

Anglo American launched a Small Business Initiative, Zimele, in 1989 to provide business opportunities to create commercially viable and sustainable SMEs in particular for historically disadvantaged groups and hence contribute to the sustainable development of mining communities.¹ The programme supports SMEs by providing finance, skills transfer and technical assistance. Regarding local content, Anglo's needs are identified and tenders are given to SMEs accompanied by training and rapid payments. It is reported that between 2008 and 2014, Zimele has concluded 2 358 transactions to support 1 619 firms and has provided ZAR 921 million in funding for businesses that employed 30 092 people.²

There are different ways in which the Zimele programme supports small businesses. Zimele offers financial assistance in the form of loans. In some cases, equity is purchased in some SMEs with an aim of selling it back to its entrepreneurs at market value within three years. Zimele has achieved a repayment rate of between 85-93% over its history. Capital and any profits realized from its loans and investments are then re-invested into the fund with a view to re-investing in other businesses.

In July 2007, **Lonmin**, a platinum mining firm, created a local supplier development programme, in collaboration with the International Finance Corporation, with a view to bring economic development to the community, situated within a 15 km radius of its Marikana mines.³ The programme sought to develop locally owned supply firms that would be awarded contracts to supply the mining sector. Within the first 3 years, the firm is reported to have awarded 215 contracts to 34 local suppliers, to the value of USD 31.5 million in the fields of construction, ore transport, training and catering.

In 2003, Gold Fields Limited adopted a Black Economic Empowerment Procurement Policy to increase the participation of HDSA. To facilitate this, the firm has identified needs and barriers to entry for its local suppliers, and accordingly has developed the Thusanang Entrepreneurial Support Centre to help empower small, medium and micro enterprises. The Centre provides training in particular in business skills to increase HDSA groups' participation in the market and to enable them to supply required services. The firm regularly organizes alignment meetings between potential HDSA service providers and its traditional vendors to form partnerships or joint ventures. To facilitate and stabilise cash flow for its HDSA vendors, Gold Fields indicates that it adheres to a seven-day payment schedule.⁴

In view of implementing the BEEE initiative, Anglo Gold Ashanti has designed a comprehensive preferential procurement programme to promote local procurement from qualifying BEE entities, as part of its normal procurement activities across all AngloGold Ashanti mining operations in South Africa. A number of mechanisms were put in place to meet the objective of the policy. First, the firm encourages existing suppliers to form partnerships with Black Owned and Black Women Owned firms. This is expected to give the latter access to the latest skills and technologies. Secondly, contracts were sub-divided to maximize local participation. Third, in some cases, it would even set tenders aside for the exclusive participation of BEE Entities. Fourth, the firm committed to support skills transfer and training to help local firms in completing tenders, meeting technical and compliance requirements and managing their businesses. The firm is in the process of setting up enterprise development centres in various areas in which it operates, which are expected to support and act as incubators for SMEs. By 2014, the firm reported that it had exceeded employment targets set in the Mining Charter for all categories defined in the Charter.⁵ It had exceeded the targets for procurement spending on BEE firms for all categories identified. Finally, in order to alleviate cash flow pressures, Anglo Gold Ashanti committed to pay suppliers within 15 working days of submission of statements.

Notes: 1. The word "zimele" is derived from the Nguni language group term for "being independent" or "standing on one's own feet".

2. Source: <http://southafrica.angloamerican.com/our-difference/zimele-enterprise-development.aspx>

3. This area is comprised of approximately 250,000 people and is characterised by a 60-65% unemployment rate, with 50% of the population living in informal settlements and shacks.

4. See https://www.goldfields.com/reports/annual_report_2008/sus_chain_management.php

5. See <http://www.anglogoldashanti.com/en/sustainability/miningcharter/social%20and%20labour%20plans/2015-2019-slp%20vr%20-%20awaiting%20ministerial%20approval%20from%20the%20department%20of%20mineral%20resources.pdf>

5. *Integrated socio-economic development for host communities* through a financial contribution to support initiatives in public programmes meant to facilitate further mine community and rural development.

Table 17. Community development requirements

Category	Mining Charter description	Target	Compliance
Community development	Mining firms to cooperate with government in the formulation and implementation of integrated development plans for the communities where mining takes place and for major labour sending areas Firms to engage/consult the local mine community and major labour sending area communities Firms are be required to provide a pattern of consultation, indicate money expenditure and show a plan	Annual value of all qualifying contributions made by the measured entity from the commencement of this statement	1% of after tax net profit

Source: Codes of Practice (2009).

6. *Non compliance*: Non-compliance with the Mining Charter and the Code of Good Practice renders firms to be in breach of Section 47 of MPRDA, which can lead to the cancellation or suspension of permit.

Assessing local content requirements

255. An assessment of the Mining Charter released by the Department of Mineral Resources (DMR) in May 2015 revealed that on average, mining firms have made good progress in achieving targets set by the scoreboard. In total, 962 right holders were expected to submit data for the assessment. However, only 46% of the eligible mining rights holders submitted data, but which nevertheless accounted for 95% of total employment in the sector, giving a fair representation of the South African mining industry. The majority of mining right holders that did not submitted their data were small and medium sized firms.

256. The results summarised below take into account the size of the mine as it is believed that this measure captures better the impact of the mining sector.⁹³ Key conclusions of the Assessment, summarised in Table 18, are:

1. Ownership requirements: 90% of submissions have reportedly met and exceeded the target of 26% HDSA shareholding with total industry simple average HDSA ownership of 32.5%. However, there was a significant difference of opinion between the Government and the mining industries and the matter has been referred to the High Court for interpretation;⁹⁴

⁹³ Due to the huge variation in size and significance of mining right holders, a **weighting methodology** based on employment for each mining right holding was applied in assessing the data. Accordingly, the aggregate industry results are presented on the following basis: (i) **not-weighted**: this approach aggregates the industry on a basis that mines of different sizes have equal significance in the output. (ii) **Weighted by Size of Mine (using employment)**: Employment figures have been used as a measure of the size of a mining right. This measure was selected as it is viewed to better capture the social impacts of mining operations. Weighting the output by size provides a measure of significance of the results to industry performance as a whole.

⁹⁴ The Department of Mineral Resources and the mining industry disagree on the interpretation of the essence of the Mining Charter, which demands 26% black ownership of companies. It is expected to bring the matter to the High Court to resolve the impasse. The disagreement centres on whether past deals count towards the 26% when the transactions have fallen away.

2. Labour requirements: The analysis reported that the mining industry exceeded the 40% target in the different functional categories, with HDSA the highest representation in the core skills category at 75.2%, followed by junior management at 62.8%. The target for women in mining was also met.
3. The Assessment indicated that targets regarding HRD were largely unmet in terms of functional literacy, career path and mentoring of empowerment groups. The Mining Charter required mining firms to spend 5% of total payroll (excluding skills development levies) by 2014 on HRD but only 56.8% of firms (weighted) reached the target.
4. Regarding preferential procurement, significant progress has been made and the report showed that the percentage of firms meeting the 40% target of total expenditure on *capital goods* sourced from BEE entities was 81.6% (when data was weighted). With respect to procurement of *services* from BEE entities, 64.8% of firms in the weighted dataset met the target of 70% whereas for the *procurement of consumables* from BEE entities, 82.7% of firms in the weighted data met the 50% target.

The Department of Mineral Resources is solely in charge of determining compliance with local content requirements. However, the South African Chamber of Mines made its own informal assessment. Its results are presented for comparison purposes in Table 18.

257. The assessments highlight a number of challenges both firms and the government faced in increasing the participation of local stakeholders in the mining industry. For instance, the attainment of broad-based economic empowerment of HDSAs was constrained access to funding, limited capacity to clearly identify beneficiaries (BEE entrepreneurs) as well as financially cumbersome structures of BEE deals. More importantly, the reported level of BEE ownership was established to have been concentrated in a handful of Black beneficiaries, contrary to the spirit and aspirations of both the Freedom Charter and Mining Charter (DMR, 2015)

Table 18. Assessment results (comparing selected targets)

Element (Scorecard weighting)	Description	Target	DMR Assessment		Informal Chamber of Mines assessment
			(i) Comparison to target (ii) % of submissions that has met target		(i) Comparison to target (ii) % of submissions that has met target
			Unweighted	Weighted	Weighted
Ownership	Min HDSA ownership %	26%	(i) 30.6%	(i) 32.5%	(i) 38%
	% of firms achieving 26%	100%	(ii) 79%	(ii) 90%	(ii) 100%
	Percentage of firms with BEE, community & ESOP	Not agreed	(iii) 6.3%	(iii) 20%	(iii) 41%
Procurement & enterprise development	Capital goods	40%	(i) ----	(i) ----	(i) 72%
	% of firms meeting target		(ii) 39.1%	(ii) 81.6%	(ii) ----
	Services	70%	(i) ----	(i) ----	(i) 63%
	% of firms meeting target		(ii) 32%	(ii) 64.8%	(ii) ----
	Consumable goods	50%	(i) ----	(i) ----	(i) 72%
	% of firms meeting target		(ii) 57.8%	(ii) 82.7%	(ii) ----
	Annual spend on procurement from MNCs	0.5% of procurement	(i) ----	(i) ----	(i) ----
	% of firms meeting target		(ii) 3.3%	(ii) 14.9%	(ii) 20%
Employment equity	Top Management (Board)	40%	(i) 54.1%		(i) 50,4%
	Senior Management	40%	(i) 50.7%		(i) 41,9%
	Middle Management	40%	(i) 52.7%		(i) 50,9%
	Junior Management	40%	(i) 62.8%		(i) 54%
	Core skills	40%	(i) 75.2%		(i) 75,5%
Human resource development	HRD expenditure as % of total annual payroll	5%	(i) ----	(i) ----	(i) 5.5%
	% of firms achieving target		(ii) 35.3%	(ii) 56.8%	(ii) 100%
Mine community development	Implement approved community projects	Up to date implementation	(i) ----	(i) ----	(i) 70,6%
	% of firms meeting target		(ii) 36%	(ii) ----	(ii) ----

Source: DMR (2015); South Africa Chamber of Mines (2015).

Main properties

258. South Africa has one of the most detailed and complex local content legislations and frameworks. The local content requirements include employment quotas at key levels of the firm, procurement targets, ownership requirements, mandatory expenditure on training and suppliers development, and community development programmes, all implemented with the stated intention to normalise the skewed demographics in the industry that were the result of apartheid.

259. Local content provisions represent an attempt to increase the participation of local actors in the mining industry, correcting at the same time historical imbalances. The targeted populations are the Historically Disadvantaged South Africans (HDSA) who make up about 90% of the population. It is

estimated that 89% of spending by mining firms is local. Additionally, the local content of exports of mining equipment is estimated at 90% as a result of South Africa's dense network of suppliers which are global leaders in a number of activities. The intent of the legislation was to drive local manufacturing of goods and services that supply the mining sector, however it has been noted that in some cases domestic production has been replaced by imports by BEE compliant firms.

260. A large proportion of South Africans are employed in and around the mining sector. The mining sector accounts for 8% of direct, non-agricultural employment. This is large compared to many minerals rich countries where mining typically employs less than three percent of the labour force. Part of this may be due to the more labour-intensive nature of platinum mining. It may also however point to a shift to more capital intensity that will come in future in order to ensure that South African mining remains competitive.

261. On the positive side, the assessment of procurement and enterprise development targets show that large firms made significant efforts to source from local suppliers. Similarly, employment equity targets were largely met, although further increases in local employment at senior and middle management levels will surely be possible only through scaling up of skills in order for potential employees to meet the competency requirements.

262. However, a recent assessment revealed a number of challenges. First, these targets are highly complex, complicated and difficult to understand for mining firms as well as for the beneficiary target groups. Complex legislation means that even basic monitoring and reporting become costly.

263. Secondly, there is some evidence of unintended effects of the policies in place. In particular, there is some evidence that locally produced inputs into the mining sector have actually been displaced by imports by BEE-compliant firms. In this case, the local content requirement actually had the opposite of the intended effect. The South African government is reviewing the legislation that is thought to have caused this situation.

264. Third, despite meeting the procurement and enterprise development targets overall, sustainable private sector development and enterprise growth have not necessarily resulted. The extensive local content requirements have raised the cost of doing business in South Africa and, in some cases, even caused business to shy away from investing further according to one source (USAID/SPEED, 2013). While firms have strict obligations to meet these targets, they often face a lack of capability to deliver on the part of suppliers, or of requisite skills on the part of employees. Perhaps the most important criticism to the South African model is that the approach was focused on mandating firm purchasing and employment behaviour rather than improving the business enabling environment and providing incentives to catalyse local procurement without sacrificing quality and cost.

265. As in many other mature mining countries, firms in South Africa have engaged in quite extensive suppliers' development programmes. Some of these programmes are vast: Zimele, a suppliers' development programme undertaken by Anglo American, has engaged with firms that employ 30 000.

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LEAST DEVELOPED COUNTRIES THE CASE OF LIBERIA AND MOZAMBIQUE

266. This section highlights the case of least developed countries. Two countries have been selected, namely Mozambique and Liberia, given the levels of their resource endowments. These two countries, while very different in economic structures, share a few characteristics. They are post-conflict countries, where large-scale industrial mining is fairly recent. They have enormous reserves that have the potential to profoundly reshape their economic landscapes if mining investments continue in the future. The two countries suffer from significant challenges, in particular related to skills and business capabilities.

THE CASE OF LIBERIA

267. The mining industry in Liberia has known a fast recovery and a rapid growth since the end of the civil war in 2003. The country currently exploits and exports gold, diamond, iron ore and cement, as well as petroleum resources and boasts a rich sub-soil, yet underdeveloped, in a variety of base metals (such as cobalt, lead, manganese, nickel, and tin) and industrial minerals (such as dolorite, granite, ilmenite, kyanite, phosphate rock, rutile, silica sand and sulphur).

Economic context

268. Liberia is a least developed country (LDC), with a per capita GNI of USD 370 per annum in 2014.⁹⁵ The country ranked 175th of 187 countries on the UN Human Development Index. In 2013, the mineral sector accounted for 11% of GDP in the country. However, the country's economic performance has been deeply affected by the Ebola outbreak in 2014 and 2015. The contribution of the sector is nevertheless forecasted to further grow, despite low commodity prices (USGS, 2015). The industry is a key driver of economic growth.

269. Liberia completed its accession to the WTO at the recent Nairobi WTO Ministerial Meeting in December 2015.

Overview of the Mining Sector

270. Due to the civil war that lasted until 2003, much of the mining activity in Liberia until recently remained small-scale and artisanal in nature. Since then, six iron ore concessions have been signed in Liberia, with an estimated value of USD 13 billion (Pailey and Siakor, 2015). Since the end of the war, the country managed to attract USD 7.6 billion in foreign direct investment particularly in the iron ore sector, accounting for 7% of the country's overall GDP and 57% of all tax revenue (LEITI, 2015). As a result, of this investment, performance of the mineral sector has been strong in recent years. The sector grew by 40% during 2013 alone, largely driven by increased output in the cement, diamond, and iron ore industries; export earnings from the mineral sector increased by 125% to USD 351.2 million in 2013 from USD 155.8 million in 2012 (Bermúdez-Lugo, 2014). Mineral export earnings in 2013 were dominated by iron ore (USD 314.2 million), followed by gold (USD 20.6 million) and diamonds (USD 17.4 million) (LEITI, 2015).

⁹⁵ Liberia is a country of approximately 110 000km² and a population of 4.4 million people.

271. Over the last few years, exploration has been underway and a number of larger-scale mining projects are currently nearing the end of the development phase. Arcelormittal has a 70% stake in the Western Range Project, which is expected to increase production from 4.7 million metric tonnes in 2013 to 15 million tonnes in 2015. A new project being developed by China Union Mining in Bong is expected to produce 10 million metric tonnes of iron ore by the end of 2016. In the gold sector, Aureus Mining of Canada is also developing the New Liberty gold mine located 90 km north of Monrovia, which is expected to produce 119 000 ounces per year and would be the country's first commercial gold mine.

Local Content Requirements and Initiatives

Overall Policy Goals and Current Regulatory Frameworks

272. The overall regulatory framework for mining in Liberia is set out in the **Mining and Minerals Law 2000**, which was enacted during the presidency of Charles Taylor and replaced the Natural Resources Law of 1956. Under the law the Ministry of Lands, Mines and Energy (MLME) is the Government Agency responsible for the administration of the mineral sector, including granting mining licenses, and it has statutory oversight of the energy, land, minerals, and water sectors (LEITI, 2015). The Mining Law is currently under review and revisions are expected to align the Law with the Africa Mining Vision and other standards that are pertinent to extractive industries.

273. A better guide to current policy goals is provided in the **Mineral Policy of Liberia**, which was created in March 2010 to complement the Mining and Minerals Law, and "outlines the Government's expectations with regard to the contributions of all stakeholders in the sustainable development of Liberia's mineral resources" (Alix, 2014). The policy outlines Liberia's vision for mining and in particular highlights the goal of:

"A knowledge-driven mining sector that catalyses and contributes to the broad based growth and development of, and is fully integrated into, an African market through:

- *Down-stream linkages into mineral beneficiation and manufacturing;*
- *Up-stream linkages into mining capital goods, consumables & services industries;*
- *Side-stream linkages into infrastructure (power, logistics, communications, water) and skills & technology development (HRD and R&D);*
- *Mutually beneficial partnerships between the state, the private sector, civil society, local communities and other stakeholders;*
- *A vibrant, environmentally friendly and socially sustainable artisanal and small-scale mining sector;*
- *A comprehensive knowledge of its mineral endowment."* (GoL, 2010)

274. Finally, the Mining Law 2000 has also been amended in 2004 to Liberia's adoption of reporting standards for diamonds under the United Nations' Kimberley Process Certification Scheme. Furthermore, Liberia was admitted as an EITI candidate country in 2008 and was the first African country to become EITI compliant in 2009. The Liberia Extractive Industry Transparency Initiative (LEITI) process covers four sectors in Liberia – mining, oil, forestry, and agriculture – and sets out requirements for the government to audit and publish information on revenue flows received from the extractive sector. To date six annual LEITI reports have been produced, most recently in December 2015 (covering the year ending June 2013).

275. The Mining and Minerals Law is currently under review and the main objectives of this reform are to (Alix, 2014):

- Harmonise the 2000 Mining Law with a number of laws, including the 2010 Public Procurement and Concession Act Law and the 2000 Revenue Code (as amended in 2011) and the 2009 Liberia Extractive Industries Transparency Initiative (LEITI) Law. Liberia joined the WTO in December 2015, and the new mining law will have to ensure conformity with the rules of the WTO.
- Switch from a concession-based system to a license-based system and reduce carve outs from the prevailing legislation that are currently available under the 2000 Mining Law on the basis of negotiated mineral development agreements for major projects.
- Increase local content requirements (while ensuring compatibility with international trade rules).
- Improve cooperation between the various governmental departments and agencies involved in the mining sector.

276. A number of technical inputs have been produced that might guide a future local content policy. Burger (2011) and World Bank (2015) both highlight strategies for encouraging greater participation of local firms in Liberia, including specific sector opportunities. For example World Bank (2015) held workshops with local firms and identify a list of 18 potential sectors including uniform production, food, safety equipment and construction services.

277. Burger (2011) also suggests that a strategic approach needs a number of elements including facilitating interactions between mining firms in order to continue to identify new opportunities, dissemination of information about tenders, and establishing robust monitoring mechanisms to ensure that local content policies are being followed.

278. **Mineral Development Agreements** (MDAs) are legally binding agreements between mining firms and the Government of Liberia. They are established in the Amended Mineral Law of Liberia. MDAs establish clear rules regarding local content requirements – essentially employment, training and procurement requirements. These are negotiated on a case-by-case basis, with each mining firm and targets and objectives are set according the jointly agreed criteria and conditions.

Box 11. Other relevant policy frameworks

The Liberian Labour Practices Law establishes minimum labour standards throughout Liberia.¹ However, the Law, which excludes workers in mining concessions from minimum wage standards, contains a clause that allows mining firms to extend the workday to twelve hours and the work-week to seventy-two hours. Employees are however to be compensated "fifty percent above the normal rate" for work exceeding the normal workday.

Mineral licenses are regulated by the 2010 Public Procurement and Concession Act Law, which sets out a transparent and competitive system for the concessioning of known state mineral assets.

Mining concessions are also regulated by the Act Establishing the Environmental Protection Agency (EPA Act) and the Environmental Protection and Management Law (EPML). The EPML requires maximum participation by the people of Liberia in the management and decision-making processes related to the environment and natural resources through various stakeholder processes. Many provisions on international human rights conventions are enshrined through the EPA regulations, as are many additional rights afforded to Liberians.

Note: 1. It sets the standard workday at eight hours and requires that any employer that extends the normal working hours notify the Ministry of Labor or a local labor inspector.

2. Firms operating concessions firms in Liberia are required to follow the Environmental Impact Assessment (EIA) process outlined in the 2002 EPA Act.

Source: SDI (2014).

Local Content Provisions within the Current Frameworks

General provisions

279. The main local content-related provisions under current legislation are found in Section 20 of the **Mining Law 2000**, which sets out provisions common to all mining licences. The Law states that:

"20.2: No operator or its contractor or subcontractor shall employ foreign unskilled labour. To the maximum extent feasible an operator or its contractor or subcontractor shall give preference and employ Liberians at all levels of their operations structure, particularly in skilled, technical, administrative, financial or managerial positions.

20.3: Any and all operators, contractor or subcontractors shall provide on a continuing basis appropriate training for their Liberian employees, in order to qualify them for skilled, technical, administrative, financial or managerial positions"

280. In addition on technology transfer "holders of mineral rights and their respective contractors and subcontractors shall conduct business in Liberia in such a way as to encourage the transfer of technology to Liberians to the fullest degree possible". Mining firms are also obliged under the Law to contribute to a Mineral Development Fund that administers various activities to help develop the sector.

281. With regards to employment, in an effort to encourage foreign investors to hire local labour, Section 75 of Title 18 of the **Liberian Codes of Laws** Revised in 1976, states that, except for administrative, supervisory, or technical positions, it is not allowed to hire a foreign employee unless the list of qualified Liberians had been exhausted or there is no qualified person on the list capable of performing the job. The employer would then have to report to the Minister of Labour that he is unable to find a suitable Liberian candidate, in which case, a special permit will be granted to hire the service of foreigner. Salaries given to the foreign employment would have to be the same as the one that would have been paid to a Liberian citizen in similar position, with equal competence or length of service (WTO, 2015).

282. A number of *investment incentives* are also provided for new investment activities under the Liberia Revenue Code of 2000 (amended in 2011).⁹⁶ Certified firms⁹⁷ are eligible for special investment incentives,⁹⁸ for a period of five years if the investment exceed USD 1 000 000 or, in the case of a business with 100% Liberian ownership, the capital invested exceeded USD 500 000. For large investments exceeding USD 10 million,⁹⁹ the tax incentives could go up to 15 years. To be eligible, firms need to inject

⁹⁶ In particular under Chapter 1, Subchapter A, Section 16 (On Special Investment Incentives).

⁹⁷ Companies certified by the Ministry of Finance and Development Planning upon recommendation by the Commission.

⁹⁸ Special tax incentives (relevant to the extractives sector) are allowed for up to 100% of the qualifying cost with respect to the following: (i) 30% of the cost of equipment and machinery used in the activity in the year the asset was placed in service; (ii) 10% of the cost of the buildings and fixtures used in a manufacturing process that produced finished products (whether for domestic consumption or for export) having at least 60% local raw material content. In addition, the new investments that operated in the areas mentioned above are eligible for exemptions from GST and from import duty, for all medical and educational equipment and supplies purchased for the use directly in or in connection with the investment activity and intended to be placed in service within one year of purchase, and other assets, purchased for the use directly in the activity and intended to be placed in service immediately upon purchase.

⁹⁹ These large investors are subject to approval by the President and the Legislature.

new investments and operate in 15 priority areas,¹⁰⁰ including manufacturing of finished products having at least 60% local raw material content and capital invested exceeding USD 100 000), which may be applicable to the extractive sector.

Specific provisions found in Mining Development Agreements

283. As mentioned, specific MDAs set out detailed local content provisions. These relate to employment provisions, training and capacity building and local procurement.

284. **Local procurement provisions** require that mining firms and their "associates", which include contractors and suppliers of goods and services, give *"first preference, at equality of quality, delivery schedule and price to goods and services provided by Liberian citizens, subject to technical acceptability and commerciability"*.

285. A new section found in more recent agreements¹⁰¹ on the use of "Liberian Goods and Services" states that firms must (i) give *"meaningful opportunities"* to Liberian firms to bid for contracts and (ii) *"to the maximum extent possible"* give preference when purchasing goods and services to those produced by Liberian firms (where the latter are defined as being those where Liberians are entitled to receive at least 60% of profits), provided that such goods are comparable to those obtainable from other sources. In addition, firms must submit a report on an annual basis on the extent to which the latter and its major contractors,¹⁰² have acquired goods and services from preferred sources.

286. No specific quantitative targets are set and there is no defined type of goods and services that have to be sourced locally.

287. The **employment provisions** contained in the Mining and Minerals Law are repeated within individual exploration and development agreements. Generally, unskilled labour must be exclusively Liberian, and firms must give preferences to Liberians for specific job families (including skilled, financial, accounting, technical, administrative and managerial positions, provided equal qualifications). In more recent agreements, firms are required to ask their contractors and sub-contractors to comply with

¹⁰⁰ (i) tourism carried out through tourist resorts, hotels and cultural sites; (ii) manufacturing of finished products having at least 60% local raw material content; (iii) energy; (iv) hospitals and medical clinics (the capital invested exceeding USD 100 000); (v) low and medium income housing; (vi) air, sea, rail, and road transport infrastructure, including ports; (vii) high-impact information and communication technology; (viii) banking in the areas lacking financial services; (ix) poultry; (x) horticulture; (xi) exportation of sea products; (xii) agricultural food-crop cultivation and processing, including cocoa and coffee; (xiii) small- and medium-scale rubber and oil palm cultivation and processing; (xiv) manufacturing or assembly of finished products for export, provided that at least 70% of production was exported from Liberia within any 12-month period; and, (xv) waste management.

¹⁰¹ See for example 2011 Concession Agreement among the Government of the Republic of Liberia, Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited and Elenilto Minerals and Mining LLC; the Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Company Limited and China-Union Investment (Liberia) Bong Mines Company Limited; 19 January 2009.

¹⁰² A "major contractor" is a contractor or a sub-contractor who received more than USD 200 000 directly or indirectly from the mining firm in a given financial year.

employment requirements with respect to their own employment practices.¹⁰³ No restrictions are made regarding senior management positions.¹⁰⁴

288. In keeping with the 2010 Minerals Policy, mining development agreements have elaborated the provisions, by setting out more detailed processes and targets for achieving the explicit objective that the operation "should be conducted and managed primarily by citizens of Liberia". For example, in addition to providing a preference to Liberians in skilled positions, the new Agreements require parties to "*agree on progressive implementation of an employment schedule so as to cause citizens of Liberia to hold at least 30% of all management positions, including 30% of its ten most senior positions, within five years [...] and at least 70% of its all management positions, including 70% of its ten most senior positions, within ten years*".¹⁰⁵ In these new agreements, clear numerical targets are defined, to be met within a specific timeline (5 or 10 years).

289. **Training clauses** are also elaborated in more recent agreements¹⁰⁶ to include, for example, the obligation for firms to provide training to Liberians to qualify them for skilled, administrative, technical and managerial positions. Types of training include vocational training and on-the-job training, both in Liberia and abroad and scholarships for advanced study abroad (subject to operational needs and conditions).

290. To enable **technology transfer**, firms may be asked to allow up to two professionals (such as geologists, mining engineers or surveyors) to participate in all aspects of technical operations as well as marketing activities.¹⁰⁷

¹⁰³ See for example, 2011 Concession Agreement among the Government of the Republic of Liberia, Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited and Elenilto Minerals and Mining LLC; the Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Company Limited and China-Union Investment (Liberia) Bong Mines Company Limited; 19 January 2009.

¹⁰⁴ See for example the 2005 Agreement between the Republic of Liberia and Mittal Steel.

¹⁰⁵ See for example the 2011 Concession Agreement among the Government of the Republic of Liberia, Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited and Elenilto Minerals and Mining LLC; the Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Company Limited and China-Union Investment (Liberia) Bong Mines Company Limited; 19 January 2009.

¹⁰⁶ Such as the Agreement signed in 2005 between the Republic of Liberia and Mittal Steel.

¹⁰⁷ See for example, Article XII regarding Employment and Secondment of the 2005 Agreement signed with Mittal Steel.

Table 19. Summary of LCPs applicable in Liberia

Type of Requirements	Details of requirements	Applicability in Liberia	Relevant legal framework
Numerical requirements	Compulsory requirement prohibiting employment of foreign labour in unskilled positions	Mining operators are not allowed to employ foreign unskilled labour.	Mining and Minerals Law 2000; MDAs
	Requirement to employ % of local labour in skilled positions	The Mining Law states that a preference in skilled / technical /managerial positions should be given to Liberians. This is compulsory. Recent Mining Development Agreements typically state that firms must submit a plan to ensure that 30 per cent of such positions are filled by Liberians after five years, and 70 per cent after 10 years.	Mining and Minerals Law 2000 and Individual Mining Development Agreements
Requirements not based on specific targets			
Local sourcing of goods and services	Firms to source inputs from domestic suppliers only if available on a competitive basis	Firms must 'to the maximum extent possible' give a preference when purchasing goods and services to those produced by Liberian firms (where the latter are defined as being those where Liberians are entitled to receive at least 60 per cent of profits), provided that such goods are comparable to those obtainable from other sources.	Individual Mining Development Agreements
Reporting and justification	Mining firms to report on preferential treatment provisions of Mining Development Agreements	Firms typically must provide an annual report on the extent to which they are meeting 'best-endeavour' clauses on sourcing Liberian goods and services	Individual Mining Development Agreements
Capability and knowledge development	Requirement for the training of local labour or certification of local suppliers	Firms meeting a determined activity threshold are requested to provide information on employment and taxation, on a voluntary basis The Mining Law states that training should be provide to enable Liberians to qualify for skilled / technical /managerial positions. Recent Mining Development Agreements typically set out instruments (e.g. overseas scholarships, donations to local universities) to achieve this, where necessary and operationally possible.	LEITI Act 2009 Mining and Minerals Law 2000 and Individual Mining Development Agreements
R&D contribution and transfer of technology	Firms required to transfer technology to local firms Firms required to carry out some levels of R&D locally	Firms must conduct business 'in such a way as to encourage technology transfer' Up to 2 professionals, including geologists, mining engineers, surveyors etc must participate in technical aspects of operations as well as marketing activities Firms are obliged to contribute to a Mining Development Fund	Mining and Mineral Law 2000 MDAs

Source: Adapted from Ramdoo, 2015b.

Public-Private Partnerships

291. In the absence of a comprehensive local content framework, one notable attempt to forge partnerships between local firms (particularly SMEs) and larger mining firms has been through the USAID-funded Sustainable Marketplace Initiative Liberia (SMI-L) project. The project aims specifically at "building the capacity of small and medium-sized enterprises (SMEs) and breaking down information barriers preventing local suppliers from accessing business opportunities" (Musinamwana and Casavant, 2014). It has produced a number of useful outputs including:

- A Supplier Directory containing more than 3 300 profiles of local firms, searchable on the internet by sector and location.
- Tender Distribution: disseminating tender announcements to local suppliers via SMS, email and on the Building Markets' website.
- Business Matchmaking: helping international buyers identify cost-competitive and high-quality domestic products and services by request and establishing relationships between buyers and local businesses at networking events.
- Training for local businesses on contracting requirements, international standards and customer service
- Market research and communications: promotes local procurement by identifying opportunities and challenges to local sourcing.

292. According to project reports since April 2012 SMI-L has supported local businesses to win over USD 33.9 million in contracts and create 1 149 jobs.

Main properties

293. In Liberia, investment in large mining projects is very recent and the design of an appropriate policy framework is still in progress. The overall framework set out in the Mining and Mineral Law 2000 is being revised and in the meantime has been overtaken by the practices contained within specific Mining Development Agreements (MDAs), negotiated individually with investors.

294. Observers highlight the need for horizontal linkages between mining and the broader economy, notably through much needed and coordinated infrastructure investment (see for e.g. Kaplan et al., 2012). It is suggested that given the large infrastructure investments being made as a result of mega mining projects, there is an opportunity to promote growth corridors, with the aim of triggering knock-on effects for employment and overall economic development.

295. Under current legislation, many aspects of local content policies can be described as "best endeavour". In terms of procurement, for example, preference should be given to Liberian suppliers if they are competitive in terms of price and quality. The definition of Liberian firms is quite clear and is specified as a firm where 60% of profits go to Liberians.

296. In terms of employment requirements, targets are specified although they may be difficult to adhere to as regards skilled positions. There is an obligation to hire Liberians for all unskilled positions. For skilled positions, many recent MDAs state that firms must submit a plan to ensure that 30% are filled by Liberians after five years, and 70% after 10 years. Some evidence suggests that compliance mechanisms are not fully operational and that many firms do not meet these obligations (SDI, 2014).

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THE CASE OF MOZAMBIQUE

297. Mozambique has a vast, untapped potential of minerals and metals and has attracted significant foreign direct investment in recent years. Its coal potential as well as vast reserves of natural gas have been particularly attractive. It is estimated that by 2032, natural resources, in particular coal and gas, could contribute up to USD 9 billion in revenues, should the demand from India and China continue to grow (CGA, 2014).

Economic context

298. Over the last 20 years, Mozambique was one of the fastest growing economies in sub-Saharan, with average annual real GDP growth of 8% (WB, 2015). This strong performance was a combined result of substantial structural reforms, sound macroeconomic policies, a favourable external environment and the discovery and exploitation of natural resources.

299. While coal and other minerals are growing industries, Mozambique is primarily an agricultural economy, with the production of cash crops such as cotton, copra (coconut product), tea, sugar, and cashew nuts. The sector accounts for 27% of GDP (WB, 2015) and 79% of total employment (UN, 2013). The manufacturing sector accounted for 10.4% of GDP in 2014, down from 16% in the early 2000s (WB, 2015). Although the manufacturing base as a whole is quite weak, major industrial operations include aluminium production, which makes up 50% of the country's exports (IMF, 2014). The share of the services sector was estimated at 53% of GDP for the period 2010-14 (WB, 2015).

300. Despite significant mineral resources and recent large findings of natural gas, the extractive sector remains largely untapped, with a low contribution to the economy. The contribution of the mining sector is expected to increase from 1.5% of GDP in 2011 to 2.9% of GDP in 2017 (KPMG, 2013).

301. Despite significant progress, numerous challenges remain to be addressed. First, there has been very little structural transformation in the economy. The share of the manufacturing sector actually went down quite significantly in recent years - 10.4% for the period 2010-14, compared to 16% for the period 2000-04 (World Bank, 2015). Rapid growth has not translated into significant poverty reduction. The emergence of natural resources and associated economic rents has exacerbated governance challenges. Capacity-building needs are pervasive, hard and soft infrastructure gaps still need to be filled, access to finance, in particular for SMEs remains a structural challenge and reforms need to continue to improve the overall business climate.

The mining sector in Mozambique

302. Mozambique is endowed with a large and diverse potential of mineral resources and hydrocarbons. This potential includes significant reserves of coal (estimated at 20 billion tonnes), heavy sands, metals such as iron, nickel, copper, titanium, manganese tantalum, tin, niobium, bauxite, chrome, other minerals such as fluorite, graphite, ornamental rocks (such as marble and granite), precious metals such as gold, silver and precious and semi-precious gems and stones, and building materials, among others.

303. The vast reserves of natural gas discovered offshore in the Rovuma Basin, which now adds the currently exploited gas reserves in the Mozambique Basin, has the potential to turn Mozambique into one of the countries with the largest reserves of natural gas in the world.

304. Artisanal and small scale mining (ASM), particularly for gold and precious and semi-precious stones, and ceramic production have significantly increased in the last decade. To better manage these activities, the Government has designated and reshaped certain mining areas and formalised a number of mining associations. It has also made available environmentally sound mining techniques and channelled technical and social support to the ASM mining operators.

Local content policies: legal frameworks and practical applications

Policy objectives

305. The dynamic extractive sector has contributed considerably to the rapid growth in Mozambique since the end of the civil war. In this context, the Government revamped the legal and regulatory frameworks to regulate petroleum and mining activities in order to ensure that operations would bring value to the country.

306. The discovery of significant coal reserves has prompted the Government to re-assess the regime applicable to mining operations. In this context and to remain consistent with the approach already taken under the 2011 Mega Projects Law and the recently enacted Petroleum Law, a new Mining Law was enacted in 2014.¹⁰⁸ The new regime is said to be overall more favourable to Mozambique and to Mozambicans (Shearman and Sterling, 2014).

307. In addition, more broadly, a Mineral Resources Policy and Strategy was approved in 2013 to improve the geological knowledge.¹⁰⁹ This strategic document sets the general policy orientation to turn the mineral resources into drivers of industrialisation, diversification and broader economic transformation. To address the skills gaps and shortages, a strategy for Training Human Resources for the Mineral Resource Sector has been designed for 2010-2020, to respond to the growing demand of the extractive industry for the entire chain of mining and petroleum activity.

308. Although Mozambique does not legally define what it means by "local content", LCPs are at the core of this strategy in an attempt to increase the participation of local stakeholders and to maximize benefits for the local economy. Several priority areas have been identified where mining firms are required to make special efforts to increase local participation. There is no restriction on foreign ownership on mining titles and rights for large projects, provided all corporate entities are registered according to the Mozambican laws. These corporate entities can be held by foreign capital.

Legal and Regulatory Frameworks

309. Mining activities in Mozambique are regulated by a number of legal instruments, as summarized in Box 12. However, the primary legislation governing the mining sector is the Mining Law No. 20/2014,

¹⁰⁸ Mining Law No 20/2014 of August 18, 2014 replaced the Mining Law 14/2002 of June 2002. The Mining Law expressly excludes oil, natural gas, methane gas and natural gas from its scope. Hydrocarbons are governed by the new Petroleum Law.

¹⁰⁹ This includes mineral resources in the soil and sub-soil, in the inland waters, in the territorial sea, on the continental shelf, and in the Exclusive Economic Zone where, in accordance with international law, the state has sovereign rights and jurisdiction

passed on 18 August 2014. The 2014 Mining Law has been designed to respond to the country's current economic situation.¹¹⁰ It first seeks to guarantee and safeguard national interests with a view to maximizing benefits for the Government and the people. Furthermore, the legislation seeks to ensure greater competitiveness and transparency, preserve the environment, guarantee the protection of rights and define the obligations of mining rights holders.

310. The 2014 Mining Law focuses in particular on the following:

1. The promotion of local development and participation of local actors in the mining sector;
2. More stringent requirements on undertakings involved in mining operations. For instance, the Law requires that the acquisition by mineral rights holders of goods and services above a certain value should be subject to public procurement procedures. In selecting the best tender, preference will be given to local products and services;
3. The expansion of the scope of activities regulated by the legislation;
4. The position of the State has been strengthened, through the establishment of regulatory and supervisory entities for the sector to monitor implementation of obligations.

Box 12. Key policy and legal frameworks relevant to the mining sector in Mozambique

Mineral Resources Policy and Strategy, 2013: To improve knowledge of the mineral resources in the soil and sub-soil and to use mineral resources for industrialisation and development, diversification and economic transformation

Strategy for Training Human Resources for the Mineral Resource Sector, 2010-2020: To endow the country with skilled and specialist human resources, responding to the growing demand of the extractive industry for the entire chain of mining and petroleum activity;

Law no. 20/2014, of 18 August: Mining Law

Law no. 28/2014, of 23 September: Establishes the Specific Taxation and Fiscal Benefits Regime for Mining

Law no. 11/2007, of 27 June: Law on Mining Taxes

Law n° 15/2011 of 10 August 2011: Law on Public-Private Partnerships (PPP), Large Scale Enterprises and Business Concessions (Mega-project law)

Law No. 23/2007, of 1 August 2007: The Labour Law

Law n° 19/97, of 1 October 1997: The Land Law

Law n° 20/97, of 1 October 1997: The Environmental Law

Resolution no. 21/2014, of 16 May: Approves the Business Social Responsibility Policy for the Mineral Resources Extractive Industry

Decree no. 26/2004, of 20 August: Environmental Regulations for Mining

Decree n° 16/2012 of 4 of June: Regulations on Law on the Public-Private Partnerships (PPP Law Regulations).

Decree n°16/2005, of 26 June 2005: Regulation on the Commercialization of Mineral Products

Decree no. 61/2006, of 26 December: Regulations on Technical Safety and Health for Geological and Mining Activities

Decree no. 62/2006, of 26 December: Approves the Regulations on the Mining Law and its appendices

Decree no. 5/2008, of 9 April: Regulations on the Specific Mining Taxes

¹¹⁰ The Law lays down the general principles for the use and exploitation of mineral resources, access to and the exercise of prospecting and research activities, development and production, processing and sale of mining products, including mineral water.

Decree no. 20/2011, of 1 June: Regulations on the Sale of Mineral Products

Decree n° 66/98, of 8 December 1998: Regulations on Land Law

Decree n° 26/2004, of 20 August 2004: Environmental Regulations for Mining Activities

Decree n° 61/2006 of 26 December 2006: Regulation on Technical Safety and Health for Geological and Mining Activities (Mining Safety Regulation)

Decree 31/2012, of 8 August 2012: Regulations on the Process of Resettlement Resulting from Economic Activities

Decree n° 15/2006 of 15 June 2006: Regulation on Waste Management

Ministerial Diploma no. 189/2006, of 14 December: Basic Environmental Management Norms for Mining

Ministerial Diploma no. 92/2007, of 11 June: Norms and Procedures for Enrolling Technical Staff Eligible for Drawing up Exploration and Research Reports and Work Programmes in Mining Projects

Source: ICLG (2015); EITI (2014).

311. More specific details about the application of local content provisions can be found in two distinct sets of frameworks:

1. The broad guidelines and the priority focus regarding local content (although no clear definition exist in Mozambique) are explicitly put forward in the 2014 **Mining Law** and in various other regulations that accompany the mining law such as the Mega-project law;
2. These are more concretely detailed and specified in individual **mining contracts**. The requirement to have local content provisions as mandatory elements is explicitly mentioned in the 2014 Law.

Provisions under the 2014 Mining Law:

312. The 2014 Mining Law requires the creation of mechanisms to promote local investment in mining projects.

- a) ***Preference for the local sourcing of goods and services:*** The 2014 Mining Law sets out local content requirements for the procurement of goods and services for mining activities that are designed to promote the development of Mozambican businesses and know-how. The Law requires that preference must be given to Mozambican individuals or entities for the purchase of goods and services. For large purchases, whose value exceeds an amount determined in subsequent regulations, firms must use a tendering process, which must be published in widely read newspapers in Mozambique and on the firm's website. The Law however does not give any numerical requirement as to the conditions under which "preference" is to be given (CGA, 2014).

Furthermore, foreign entities that provide services to mining operations are required to "associate with" Mozambican entities. Again, details of how this obligation is to be implemented remains unclear and is expected to be specified in future regulations and/or secondary legislation.

- b) ***Employment requirements:*** The 2014 Mining law requires mining firms to ensure the employment of local workforce when competencies are available and provide professional training of Mozambican workers. Furthermore, a Decree published in 2011 (No. 63/2011), established the criteria regarding the hiring of foreigners citizens in the mining sector. The objective was to ensure that more qualified workers would be attracted to mining operations. The 2014 Mining Law introduced new requirements for mining firms regarding the hiring of workers and employees. All job vacancies should be widely advertised with all details regarding expertise

required to allow nationals with the requisite competencies to apply for the jobs. This requirement, however, does not seem to apply to sub-contractors (CGA, 2014).

- c) **Equity participation:** Article 33(1) of the PPP Law, which related to mining concessions, requires the participation of Mozambicans in the capital of each undertaking ranging between 5% and 20% of the equity capital.
- d) **Listing on the stock exchange:** The 2014 Mining Law requires mining firms to be listed on the Mozambican Stock Exchange. The terms of this participation has however not yet been defined and it is uncertain as to whether this refers to a specific percentage of a project, or whether all of the shareholding of the firm is to be listed. (CGA, 2014). It is thought however that this provision will facilitate equity participation of Mozambican investors in mining firms.
- e) **State participation:** According to the 2014 Mining Law, the participation of the State is expected to progressively increase in mining projects. While the level of participation is not explicit in the Law, it is expected that this will be agreed within the specific terms of mining contracts. In addition, the PPP Law Regulations provide that in order to be considered for the award of exploitation rights over natural resources, the State will have the right of a free carry participation of at least 5% of the share capital during any phase of the project.
- f) **Use of local inputs:** The 2014 Mining Law requires the use of local inputs, such as a fuel for electricity generation or raw materials for the manufacturing industry in Mozambique. While a specific percentage in respect of the minimum requirement of resources is not mentioned, it is expected to be defined in specific mining contracts.

Provisions under mining contracts

313. Currently, most local content requirements now are embedded in individual contracts for mining exploration, extraction and production. These contracts contain similar aspects of local content such as share of local labour employment and some local supply chain strengthening activities. However, the scopes for each vary greatly.

314. The Mining Law of 2014 stipulates that all mining contracts must contain certain mandatory clauses, that may include numerical targets to be negotiated between the firm and the government, regarding:

1. The level of State participation;
2. Minimum local content;
3. Local employment and training requirements (ratios);
4. Incentives in relation to increasing the value of the minerals to be extracted (downstream processing);
5. Corporate social responsibility requirements;
6. Memorandum of understanding between the firm, the State and the community establishing dialogue with local communities;
7. Disputes resolution mechanisms, including provisions relating to the settlement of disputes by way of arbitration; and
8. The way that the communities in the area will be involved in and benefit from the mining activity.

All mining Contracts must be published in the Official Gazette and are subject to the Administrative Court's prior approval.

Table 20. Summary of LCPs applicable in Mozambique

Type of Requirements	Details of requirements	Applicability in Mozambique	Relevant legal frameworks
Quantitative requirements			
Numerical requirements	Equity participation	Investors required to concede 5 – 20% of equity in share capital to Mozambican investors	PPP law (para 1; Art 33)
	State's free carry participation ¹	State will have the right of a free carry participation of at least 5% of the share capital	PPP Law
Qualitative requirements			
Compulsory requirements but are not expressly defined by numerical targets (but may be specified in individual contracts)	Preference for locally sourced goods and services	Firms to give preference to the local sourcing of goods and services Large purchases should be tendered	Mining Law 2014 Mining contracts
	Employment requirements	Firms to give priority to Mozambicans Foreign employment allowed when local competencies are not available	Decree No. 63/2011 Mining Law 2014 Mining contracts
	Joint venture requirement	Foreign service providers are required to "associate with Mozambicans" (no quota defined)	Mining Law 2014 Mining contracts
	Information sharing	Tenders for large supplies must be published in all media and on the internet All job vacancies must be published in all media and on the internet	Mining Law 2014 Mining contracts
	Listing on Mozambique Stock Exchange	Firms are required to be listed on the Mozambique Stock Exchange	Mining Law 2014 Mining contracts

Note: 1. Free carry obligations require that firms grant, free of charge, a specified percentage interest in their venture to the host government.

Source: Adapted from Ramdoo (2015)

Suppliers development and partnerships

315. A number of private-public initiatives are already operational in Mozambique to scale up business linkages, in particular with SMEs. Already in 2002, the aluminum smelter Mozal, an industrial plant in Mozambique that processes imported alumina, launched a project to stimulate and strengthen local business capabilities to enable small entrepreneurs to compete for contracts for operations at different stages of processing. Although not a mining project, the latter is seen by many as a flagship programme that helped to develop business linkages, create jobs and localize suppliers (USAID, 2012).

Box 13. Mozal's partnership experience

When Mozal announced it would settle in Mozambique in 1997, the State was determined to use this opportunity to create opportunities for local businesses. However, it was found that "99% of local firms had serious problems with product quality", lacked experience, did not have adequate equipment and technology and had suffered from skills shortages. In addition, intra- and inter-firm linkages were very weak and there were very few formal firms that could take up any potential opportunities that Mozal could provide.

To bridge this gap, in 2001, an *SME Empowerment Linkages programme (SMEELP)* was jointly put in place by Mozal, the Centre for the Promotion of Investment (CPI) and the IFC to develop local firms so they could become eligible to participate in the construction of the Mozal plant. The project first created a database of potential Mozambican firms that could supply the company in goods and services. In order to allow small firms to bid for contracts, Mozal redesigned and unbundled a number of its large contracts and reformulated its procurement standards. The firm further facilitated local firms' participation by providing information and by training and mentoring potential SME bidders. In total, 16 SMEs were trained and over time 28 contracts worth just over USD 5 million were awarded.

From 2003 onwards, when Mozal moved into the operational phase, the SMEELP focused on providing access to finance to SMEs and on providing technical capacity training (the so-called Mozlink programme). In 2005, an Industrial Park was created to enable firms to benefit from clustering effects. This phase of the programme trained 45 SMEs. Mozlink enterprises gained contracts worth USD 13 million out of a total expenditure on local content of USD 180 million.

From 2006 onwards, Mozlink was expanded (Mozlink II) to include other foreign investments primarily in the gas (SASOL) and beverage sectors (Coca-Cola and South African Breweries). Supply chains programmes were developed to strengthen business and technical capabilities of SMEs so they could compete for industry contracts in the wider economy. Mozlink II is said to have trained 75 SMEs, providing USD 20 million in revenues for SMEs with a 40% growth in contract development by Mozlink corporate partners, and created 3 000 employment opportunities.

Overall, the different phases of the project are estimated to have created over 200 suppliers of inputs in sectors such as metallurgical services, transportation, auto mechanical and electrical products and services, construction, security, cleaning, catering and laundry. Furthermore, with an investment of about USD 1 million by IFC and partner corporations, the programme facilitated USD 53 million in incremental sales for local SMEs; USD 15 million in contracts signed by SMEs and created 336 formal jobs (USAID, 2012).

Source: Burr (2014); USAID (2012).

316. Many critics point out however that too few linkages were created, in particular compared the value of the investment of Mozal (USD 4 billion when combined with Sasol gas projects) with that of the programme (Nhancale, 2010). One reason may be the definition of "local companies", which meant any companies registered in Mozambique. This facilitated investment from foreign firms, such as South African firms involved in the large mining projects in Mozambique, but did not necessarily foster the development of Mozambican indigenous firms to take advantage of mega-projects (Castel-Branco, 2002 and 2004).

317. Following the experience of Mozal, similar initiatives have been attempted, albeit with limited success, by mining firms such as Vale and Rio Tinto. Rio Tinto Coal Mozambique (RTCM) Project in the Tete region initiated a business linkages programme. The following activities were conducted:

1. The firm mapped out opportunities for local SMEs in three areas, namely (a) areas related to their core business; (b) non-core activities relevant to the operation of the mine, in particular related to services such as catering; and (c) potential other businesses with a focus on infrastructure and energy;

2. Identifying priority geographical areas: by the order of priority they were (a) resettled communities (b) Tete/Beira (c) Zambezi Corridor and (d) Mozambique as a whole.
3. The firm then mapped and conducted a diagnosis of local businesses in these priority geographical areas with a view to identify potential suppliers that could provide goods on a competitive basis.

318. However, the project was put on a backburner as Rio Tinto sold its assets to the Indian firm International Coal Venture Private Limited in 2014. No information is available on the approach that the Indian firm will take to stimulate linkages with local businesses.

319. Vale is another global firm present in the coal sector in Mozambique. It had plans, in collaboration with the International Finance Corporation (IFC), to design a linkages programme, based on its Inove procurement programme model in Brazil to develop local suppliers. However, this did not materialize partly because the IFC did not continue with their planned investment in Vale. As a result, Vale embraced a more traditional CSR approach, to focus local communities around its operations. Business linkages and suppliers' development is not mentioned as a priority.

Challenges facing the mining sector in Mozambique

320. Despite its vast proven mineral resources, currently large mining projects are concentrated in the coal sector. While the demand for coal is expected to continue to drive the mining sector in Mozambique, the country has also taken commitments regarding global climate change agreements,¹¹¹ meaning that it will have to diversify its mining production portfolio as countries adopt energy transition policies towards greener technologies.

321. Beyond coal assets, however, a number of other mineral resources offer significant potential, in particular for smaller "junior" firms. These include aluminum, beryllium, tantalum, pig-iron, zinc, lead, silver and gold as well as several precious stones such as rubies and diamonds. Despite numerous challenges, the cost of production for some of these minerals is estimated to quite low.¹¹²

322. The current lack of infrastructure and energy,¹¹³ considered as one of the key bottlenecks hampering the development of mines in remote areas for instance, provide substantial opportunities for the construction sector and other peripheral services. While major mining firms often use their own in-house technical expertise and capacity, the growing "junior" market provides significant opportunities to develop related services industries.

323. There are a number of challenges facing the development of suppliers in Mozambique. First, the private sector is rather weak and is characterized by a large informal sector, many micro enterprises and a

¹¹¹ Mozambique is a member of the United Nations Framework Convention on Climate Change (UNFCCC) through the country's ratification of the Kyoto Protocol. The country has established a Designated National Authority (DNA) to manage activities under the Kyoto Protocol's Clean Development Mechanism (CDM) within Mozambique. It has already committed to switch from coal to natural gas for its cement plant in Matola and is looking at green energy alternatives as it moves to electrify the country.

¹¹² As an example, Brazil is the world's largest pig-iron producer and its cost of production is USD 380/mt to USD 390/mt. In Mozambique, the cost of production is estimated to be around USD 225/mt.

¹¹³ The power grid covers about 6% of the country. Therefore most of Mozambican households and businesses have limited or no access to electricity; only 10.5% of households have such access. Half of those households are located in Maputo and surrounding areas.

weak manufacturing base. Large firms like Vale and Rio Tinto struggle to find firms that can meet a critical mass and can deliver on large contracts. Also, most firms have technological difficulties, a major barrier to work with capital-intensive and technologically-advanced firms.

324. Furthermore, Mozambique has a real challenge regarding its skills capabilities: long years of civil war have drained the country of its manpower and severely affected the educational system bringing about serious insufficiencies in training in the workforce. Mozambique has one of the lowest levels of education among its adult population in the world, with only 1.2 years of formal education (AOE, 2012). This low skills level is a major obstacle for employers in the industrial and mining sectors when seeking to recruit qualified manpower and to meet the conditions of preference for local labour as required by the Mining Law and mining contracts.

325. Another major challenge faced by local SMEs that want to grow their businesses is the difficult access to finance. Due to the lack of collateral and high interest rates, many local firms are structurally excluded from the financial system.

Main properties

326. Despite Mozambique's rich resource endowment, large-scale industrial mining activities are fairly recent. This is reflected in the recent evolution of the legal framework, which is only starting to clearly define objectives and the means to achieve these objectives.

327. Recent regulatory reforms have adopted a relatively flexible approach, that seek gradually to increase the participation of Mozambicans in the mining sector, but without obliging firms to adhere to numerical targets to meet this objective.

328. This approach seems to be a pragmatic one, given that Mozambique first needs to strengthen its skills capabilities, bridge its infrastructure gap, improve its business climate and develop its private sector and manufacturing base. The lost years during the civil war have resulted in a weak education system and have drained the country of a significant portion of its skilled labour force. Similarly, the private sector is often comprises of small firms in the informal sector. They need to be scaled up in order to take advantage of supply chain opportunities that the mining sector can provide.

329. One area where Mozambique has imposed targets is in equity participation. Mining firms are obliged to have between 5 and 20% of their equity held by Mozambicans. In the case that this brings full participation of Mozambicans at the level of board of directors, it could represent a good opportunity to increase access of the local population to the highest levels of business decision-making. The risk of this kind of equity requirements is, however, that it could introduce an opportunity for rent-seeking among local executives and represent a substantial cost to the mining firm without providing any longer-term benefit.

330. There have been some suppliers' development programmes instituted in Mozambique with varied success. One of the most successful seems to be that by Mozal, a large coal-mining firm. Critics point to the limited success even of this programme given the large scale of Mozal's projects and the relatively small size of its suppliers development programme. The challenges are, however, immense: one study estimated that 99% of Mozambican firms had sufficiently flawed performance that they would have difficulty supplying firms such as Mozal. Mozal's suppliers initiative includes many supporting policies such as unbundling of large contracts to make them more accessible to smaller local firms, mentoring selected SMEs and providing easier access to finance.

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