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Local content policies in mineral-rich countries

An overview

by Isabelle Ramdoo

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Key messages

Resource-rich countries are searching for durable solutions to 'disenclave' their mineral sector, but pathways to economic diversification have not been uniform.

An increasing number of resource-rich countries have introduced or reinforced local content policies to foster industrial development.

Local content interventions can be mandatory or voluntary and policies vary according to countries' level of development, resource endowments and sectors' maturity.

Success depends on ability to move from compliance to core-business mode, establishing functional enforcement and monitoring mechanisms, and fostering strong partnerships.

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The views expressed in the Study are those of the author only and should not be attributed to any other person or institution.

Acronyms

BSA	Benefits Sharing Agreements
CDA	Community Development Agreement
DMR	Department of Mineral Resources
ECDPM	European Centre for Development Policy Management
EU	European Union
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
IBA	Impact and Benefits Agreement
ICMM	Intergovernmental Committee on Mining and Metals
IFC	International Financial Corporation
ILUA	Indigenous Land Use Agreement
IMTT	Integrated Mine Technical Training
LCA	Local Content Act
LCPs	Local content policies
OPEC	Organization of Petroleum Exporting Countries
R&D	Research and Development
SMEs	Small and Medium Enterprises
TRIMS	Trade-Related Investment Measures
UK	United Kingdom
US	United States
WGC	World Gold Council
WTO	World Trade Organization

Executive Summary

The current commodity downswing have once again exposed the vulnerable fiscal situation of a number of resource-rich countries and companies alike, making it difficult to pursue any meaningful reforms aimed at maximising revenue from resource rents and taxes. Meanwhile, the pressure from the population to derive more benefits from resource endowment, both on countries and companies, has not weakened.

To address this, increasingly, resource-rich countries are searching for durable solutions to ‘disenclave’ their mineral sector, notably by developing and deepening economic linkages between the extractives sector and the rest of the economy. In this regard, an increasing number of countries introduced or reinforced local content policies (LCPs) with a view to stimulate the use of local factors of production, such as labour, capital, supplies of goods and services, to create value in the domestic economy and hence expand the industrial sector.

But pathways to economic diversification have not been monolithic. Experiences across resource-rich countries globally suggest that countries have embraced different routes at different moments of their development trajectories. The trajectories have been defined by countries’ internal systemic and political realities as well as exogenous contextual situations, such as the cyclical behaviour of commodity prices, demand and supply and technological changes.

Countries have valid motivations to design and implement LCPs. These are linked to economic and socio-political considerations, the balance of which is a delicate act. They consist of economic reasons such as the need to create jobs and stimulate local industrial development as well as socio-political interests to respond to calls to address policy failures.

Amongst others, one of the key policy instruments commonly used to stimulate resource-based economic transformation is local content. Although there is no agreed definition of local or content, this concept is generally understood to be a set of policy instruments put in place by national governments to ensure that a certain share of factors of production (such as labour, supplies, technology, knowledge) required at each stage of the value chain is sourced from the domestic economy. The core elements that characterise LCPs are labour market development, value creation or addition, the development of local industries and the promotion of innovation, technology and research and development.

Certain conditions are necessary to support LCPs. First, it is important to understand the potential risks and opportunities associated with those policies in order to mitigate or minimise potential costs that can be associated with LCPs. The overall economic and political costs of having ‘no policies’ should be carefully weighed against the costs of ‘having’ such measures in place, both to firms and to the society at large. Further, stakeholders should have a profound understanding of the political economy of the habitat of their extractives sector. In addition, a certain level of institutional readiness in resource-rich countries is necessary and countries’ capacities to deliver on LCP promises are critical to prevent unrealistic or ill-targeted LCPs, which may be cost-inflationary and hence compromise the viability of the extractive sector. Finally, LCPs need to be targeted and specific enough to be successful.

Types of interventions vary according to countries’ level of development, resource-endowments and sectors’ maturity. Also different stakeholders have their own logic in the design of local content. Public interventions can be summarised as regulatory measures or ‘incentives-based’ measures, where governments decide to act as regulators or facilitators. Interventions, implications and results differ accordingly. Extractive companies may also conduct their own LCPs either to stimulate suppliers’

development or to obtain a social license to operate. Here also, types of interventions differ depending on whether those policies are meant to target the core business functions of companies or to handle public relations with the local communities. Finally, local communities may drive LCPs in areas surrounding the mine operations. These may arise as a result of repeated tensions and conflicts or to ensure sustainable and mutual benefits for the local communities.

The Paper is organised in three parts. Section 2 defines the contours of the local content debate and illustrates the key highlights of what are the relevant issues regarding LCPs. In particular, it provides an analysis of the current debate around LCPs, and why they matter. This section highlights the main motivations driving LCPs, their key characteristics and the scope, in terms of labour market development, value creation, the development of local industries and the promotion of innovation and research and development. It finally highlights the conditions that are necessary to support LCPs.

Section 3 looks at the design of LCPs and examines the types of interventions by governments, industries and local communities respectively. The section highlights the main thrusts of such interventions, in terms of quantitative and qualitative measures adopted by various stakeholders to stimulate the common goal of shared value creation and economic linkages.

Section 4 concludes the paper, by looking at the various ways of scaling up impact. The conclusions highlight the various elements that are necessary to have successful policies, namely the importance of ensuring a common understanding of local content and of the change in mindset, from a compliance mode to a core-business mode; the importance of ensuring functional monitoring and enforcement mechanisms as well as a flexible approach to adjust policies as the economic environment evolve; and finally, the importance of solid partnerships and joint responsibility in the compliance with and implementation of LCPs.

1. Introduction

The current commodity downswing, driven by the contraction in demand as a result of the slowing down of the Chinese economy and due to supplies build up, following previous high prices in the metal sector and excess production in non-OPEC countries, have again placed the ‘*resource curse*’ debate at the centre stage in mineral-rich, but otherwise poor countries.

Once more, weak prices have exposed the vulnerable fiscal situations of a number of resource-rich countries and extractive companies¹ alike, making it difficult to pursue any meaningful reforms aimed at maximising revenue from resource rents and taxes. Meanwhile, the pressure from the population to derive more benefits from resource endowments, both on countries and companies have not weakened. On the contrary, as countries are once again negatively impacted by the downturn in commodity cycle, more than ever, governments are compelled to find sustainable solutions to ‘*disenclave*’ their resource sectors to reduce the over-reliance on mineral resources, notably by putting in place efficient policy measures to leverage their mineral resources to foster broader economic diversification.

To that effect, many governments have undertaken reforms aimed at developing and deepening economic linkages between the extractives sector and the rest of the economy. To attain this objective, an increasing number of countries have introduced or have reinforced local content policies (LCPs) with a view to stimulate the use of local factors of production, such as labour, capital, supplies of goods and services, to create value in the domestic economy and hence expand the industrial sector.

It is estimated that 90 percent of resource-rich countries apply one form of LCP or another (McKinsey: 2013). The approach to local content varies across countries: approximately 50 percent of resource-rich countries impose quantitative regulations, while others have a softer approach, consisting of qualitative regulatory measures or incentives.

This Paper provides a brief overview of local content policies across resource-rich economies worldwide. It provides a synopsis of the scope of local content, highlighting examples of how those have been designed and implemented across countries of various levels of development.

2. Local Content: The current debate

2.1. What is local content and why does it matter?

A scan of the economic development trajectory of resource-rich countries suggests that many have not managed to derive sufficient economic and political benefits from their natural resources. Numerous studies² indicate that extractive resources can potentially become a ‘curse’ (See Auty: 1993; Sachs and Warner: 1995; Gelb: 1998; Ramdoo: 2013; Stevens et. al. 2015), if not managed well, although evidence is non-conclusive regarding the correlation between resource endowments and economic outcomes. Moreover, many countries that became excessively dependent on mineral exports often did so at the

¹ Weak prices left many companies with less cash flows as their earnings were absorbed by debt repayments and servicing. It is also probably true that some companies found themselves in difficult financial situation, having ‘gorged’ on cheap debts during the China led-metal boom and now having to pay the price. For these reasons, banks are more prudent in lending and investors and financial markets move away from what they perceive to be risky bets, including stocks and commodities. This so-called “risk off” behaviour has put downward pressure on prices of both oil and metals.

² For a recent review of the academic literature, see Ploeg (2011).

expense of their other economic sectors and in particular their industrial sectors, leaving very concentrated economic structures highly vulnerable to the volatility of commodity prices or currency appreciation (see abundant literature on Dutch Disease, for e.g. Corden: 1984; Wheeler: 1984).

Pathways to economic diversification have not been monolithic. Experiences across resource-rich countries globally suggest that countries have even embraced different routes at different moments of their development trajectories. These were defined by these countries' internal systemic and political realities as well as exogenous contextual situations, such as the cyclical behaviour of commodity prices, demand and supply and technological changes.

Amongst others, one of the key policy instruments commonly aimed at stimulating resource-based economic transformation is **local content**. Although there is no agreed definition of what constitutes 'local' or 'content', this concept is generally understood to mean a set of policy instruments designed by national governments to ensure that a certain share of factors of production (such as labour, supplies of goods and services, technology, knowledge) required at various stages of the value chain is sourced from the domestic economy. For example, with regards to employment, LCPs seek to secure an immediate increase in the share of local employees. Policies can go as far as imposing a legal requirement onto extractive companies to actively recruit the local workforce in such a way as to create jobs or facilitate the transfer of valuable skills and knowledge from foreign labour to the local workforce.

Countries have valid **motivations** to design and implement LCPs. These are linked to economic and socio-political considerations, the balance of which is a delicate act.

- (i) On the **economic front**, local content is perceived as a '*low-hanging*' fruit because it can potentially create jobs and stimulate local industrial development. It seeks to capitalise on the companies' necessity to source certain critical goods and services as well as on various types of jobs that are needed during the life cycle of the mine, at different skills levels. It is estimated that between 40 and 80 percent of the revenue created in oil and gas and in mining is spent on the procurement of goods and services (McKinsey: 2013). The share spent in country varies significantly of course, depending on the type of mineral at stake and on the capacity of countries to supply the requisite goods and services to extractive firms. It is also estimated that procurement spending significantly exceeds the contribution to government revenues, which only range between 3 – 20 percent of GDP (ICMM: 2014). For this reason, more than 90 percent of resource-rich countries seek to use LCPs to get as much benefits possible from that potential (McKinsey: 2013).

Furthermore, LCPs are ways of inciting the development of competencies, necessary to make the industry function. While sometimes the requisite talent or pool of expertise might not be immediately available due to skills mismatch or skills shortage, in other circumstances, extractive companies prefer to use expatriate labour. LCPs are therefore meant to encourage workforce development and transfer of skills and knowledge, to gradually incite companies to use more local labour and less foreign workers, in particular in strategic positions.

Similarly, LCPs are way to create economic linkages and business opportunities for local entrepreneurs. However, specialised goods and services needed at various stages of the life cycle of the mine may not be available. Companies must therefore purchase such goods and services from international providers. However, overtime, mining firms may build well-established relationships with their regular international providers, making it difficult for small

local firms to participate competitively in the value chain. Supportive policies are therefore deemed necessary to stimulate efforts to source locally.

- (ii) LCPs also serve **socio-political interests**. In many resource-rich countries, increasingly, societies are denouncing policy failures and are holding governments to account because the extractive sector has largely failed to deliver on inclusive and sustainable development objectives and welfare creation. The Africa Progress Panel 2013 for instance, portrayed the wide disconnect between wealth and well-being, depicted by the mixed record between high growth rates in some resource-rich countries and poverty and low human development (APP: 2013). At the same time, the complex political economy surrounding the resource sector calls for governments to navigate among the various interests to secure deals that work for companies while maintaining social peace and maximising benefits at the national level. In that sense, LCPs can provide useful tools to create visible opportunities at the domestic level.

Making better use of extractive resources is not a challenge that is unique to resource-based developing economies. In today's resource-rich developed countries, such as the UK, Australia, Canada or Norway, governments have historically played a very (pro) active role in designing solid LCPs at the early stage of the development of their extractive sectors. Despite highly educated labour force with extensive technical competencies in highly specialised industries, at that time, these countries however lacked sufficient domestic oil and gas related services and industries to support the extractive sector. To address this, the **UK** for instance, resorted to a number of policy instruments such as discretionary licensing and strict audits of purchases by oil companies to ensure procurement from domestic suppliers (Wallace: 2014). Further, it strongly supported transfer of R&D capabilities and encouraged joint ventures with domestic players to facilitate knowledge and know-how transfer. In **Norway**, primarily through its national oil company, Statoil, the Government promoted local content by establishing a mandatory condition upon International Oil Companies to transfer technology and expertise to scale up local participation in the oil and gas industry. While, the UK and Norway did not impose any specific employment or local content targets or quotas, they nonetheless, emphasised value addition and the building of competencies. Local content in the UK is today estimated at around 85 percent with nearly 100 percent in post-development operations (Wallace: 2014). In Norway, the share of local content have reached between 50 and 60 percent for investments in the development of new petroleum fields and exceeds 80 percent for maintenance and operations (Heum: 2008)

2.2. Key characteristics of local content

LPCs are designed to realise the objectives and to implement the priorities that resource-rich countries have established with a view to reaping maximum benefits from their resource endowments and hence provide opportunities to their constituencies. The core elements that characterise LCPs are:

- I. **Employment and labour market development:** the priority is to frame policies around employment creation at various levels of competencies and at various stages of mineral operations, training of staff and transfer of skills and know-how between foreign and local labour. To create or foster employment opportunities, some governments use regulatory instruments to set minimum quantitative targets for the hiring of local labour or for the training of staff. In addition, governments may require companies to provide a growing share of managerial positions for local personnel, in the form of a specific percentage of senior managerial positions to be earmarked for qualified nationals. Similarly, to build local capabilities, extractive companies are required to invest a specific percentage of their turnover or recurrent spending for the training programmes for local staff.

Box 1: Examples of employment and training requirements**Employment requirements:**

Angola requires that all oil companies to hire at least 70% of Angolan nationals and limits employment of foreign workers only when no Angolan worker with the equivalent qualifications is available. In **Nigeria**, oil companies are required to employ only Nigerians in junior or intermediate positions. In **Tanzania's** oil sector, if a company recruits a foreign national, the work permit will only be obtained on the condition that the latter submits a succession plan for a Tanzanian national. **Kazakhstan** has a 95% minimum requirement for the employment of nationals. In **Ghana's** mining sector, unskilled labour and clerical positions are reserved for Ghanaians only; for other jobs, the share of expatriate staffs should not exceed 10% of total senior staff within the first 3 years and 6% after 3 years. This should be accompanied by training programmes. In **South Africa**, the Mining Charter sets out compulsory requirements to employ at least 40% local labour at all levels including at senior management and board levels. There is also a requirement to employ at least 10% women in mining activities. In **Brazil's** oil and gas industry, local employment and training is one of the three determinants in the bidding process. In presenting their offers, bidders must indicate a specific percentage of local content, which is turned into a number of points used to rank bidders' offers along with other parameters. In **Ecuador**, the Mining Law requires 80% of companies' workforce to be Ecuadorian while the Hydrocarbon Law requires that companies employ 90% of Ecuadorian staff in technical positions and 100% for administrative jobs. According to **Bolivian** Hydrocarbon Law, 'under no conditions, companies' foreign personnel can exceed 15% of the total share of employment³. Also, any company that enters into a contract with the National Oil Company must demonstrate explicitly its preferential process to hire workforce, purchase goods and services and training processes for the national oil companies' employees⁴.

Training requirements:

In **Angola**, companies are required to contribute on an annual basis US\$0.15 for every dollar per barrel of oil produced for the training of Angolan personnel. In the exploration stage, the contribution is a fixed amount of US\$200,000 per year. In **South Africa**, companies must contribute 5% of their total annual payroll to human resource development. In addition, companies have their own programmes to support capabilities. For instance, Anglo American has set up a Community Fund to provide, amongst others, training and skills development for entrepreneurs and SMEs.

Source: Ramdoo (2015a); AfDB (2015); CCSI (2014; 2015); Tordo et. al. (2013); Grupo FARO and ACODE (2015).

- II. **Value creation or addition** in the domestic economy to stimulate the development of supply chains. In this case, governments design specific policy instruments regarding the local sourcing and increased participation of local and locally-owned companies. Such policies can take the form of a preference accorded to local suppliers during bidding processes, a mandatory requirement to procure specific types or a given percentage of total spending on goods and services from domestic suppliers or an obligation to enter into partnerships with local entities to qualify as local suppliers. In order to avoid affecting the viability of the sector and hence endangering jobs and investments, local goods and services however need to be competitive, and of comparable quality and price to what can be sourced internationally.

³ See Article 15 of the Hydrocarbons Law.

⁴ See Bolivian Hydrocarbons Law No. 3058, 2005.

Box 2: Examples of local sourcing requirements**Local procurement requirements:**

Nigeria's local content Act (LCA) of 2010 provides for specific categories of activities⁵ to be procured locally. Local content targets for some goods and services are set between 80 and 100%⁶. Also in sectors where there are indigenous service companies, exclusive consideration is required⁷, provided companies have the capacity to execute. Companies are subject to penalties for non-compliance⁸. In **South Africa**, the Mining Charter sets procurement spending targets around black economic empowerment as follows: 40% on local procurement for capital goods; 50% for consumables and 70% for services. In the oil sector in **Ghana**, companies must comply with specified minimum local content levels for goods and services: target are set at 10% at start, 50% at 5 years and 60-90% at 10 years. Motivated by the increase in local content from 49% to 63% between 2009 and 2010, **Indonesia** modified its legislation from an initial target of 35% to varied rates for different activities. For offshore oil and gas drilling, local content targets have been raised from 35% to 45% and for land drilling to 70%, to be implemented in 2016. Companies offering shipping services have seen an increase the sourcing of their components from 35% to 75%⁹. In its 2014 Law on Hydrocarbon, **Mexico** has fixed a domestic content target of 25% for 2015, to be gradually increased to 35% by 2025 for shallow water projects. The methodology for measuring domestic content is based on 5 principles: (i) the origin of goods and services; (ii) local labour force; (iii) training; (iv) investment in infrastructure and (v) transfer of technology. In **Bolivia**, the National Constitution¹⁰ guarantees preference in acquisition of materials from micro and small enterprises and productive community organisations.

Preference requirements in procurement and bidding processes

A Decree published in 1972 in **Norway** required that on the condition that Norwegian suppliers were competitive on the basis of price, quality and delivery reliability, the latter should be given priority over foreign suppliers during tendering processes. Before the tender selection, oil companies were required to submit the tender schedule and the list of bidders to the Ministry, who could request to include Norwegian firms and had the final authority to change the company selected for the supplier contract¹¹. In **Angola and Mozambique**, preference may be given to local goods and services on the condition that the latter are of comparable in quality and quantity to international materials and services, and that their price does not exceed foreign goods and services by more than 10%. **Kazakhstan** requires mining investors to enter into a binding agreement with government to establish a certain percentage of local content¹². It also requires companies issuing tenders to give preferences to local suppliers by giving a 20% margin of preference in the bidding price. Companies may face penalties¹³ for non-compliance. In **Ghana**, companies must show they will give 'first consideration' to locally produced goods and services provided these meet international standards and the specification of the industry. Preference should be awarded to Ghanaian companies if the latter's bid does not exceed the lowest bid by more than 10%, provided that the company has the capacity to execute. **Liberia's** 2014 bid round includes innovative "Local Content Participation" provisions which provide that bidding groups that include a significant West African company or a company operating in the Economic Community of West African States (along with a Liberian partner) will have their bids evaluated with a 20% uplift in their signature bonus proposal. **Mozambique's** 2014 Mining Law sets out local content requirements for the procurement of goods and services for mining activities that are

⁵ Such as floating products, storage and offloading vessels and steel plates.

⁶ Schedule A of the Nigerian Content Development Act specifies the level of Nigerian content to be achieved per activity or input used by operators in the oil and gas sector (G/TRIMS/W.142).

⁷ For goods and services such as steel pipes and plates, cables, valves, cement, audit services and geographical survey services, the local content requirement is 100 percent (G/TRIMS/W.142).

⁸ Penalties can go up to the cancellation of projects and fine equivalent to 5 percent of project value.

⁹ See Global Business Guide Indonesia (2014). [Going Global: Understanding Indonesia's Local Content Requirements](#). Business Updates. 5 May 2014.

¹⁰ See Article 334 of the National Constitution of Bolivia.

¹¹ See Article 54 of the Royal Decree of 1972.

¹² This is based on a detailed register of goods and services, the 'Uniform Method of Kazakh Content Calculation' (Government Decree No. 367/2010).

¹³ If the targets contained in the agreement with the government are not met, the company faces serious consequences, possibly losing its license.

designed to promote the development of Mozambican businesses and know-how. The Law requires that *preference* must be given to goods and services purchased or obtained from Mozambican individuals or entities. For large purchases (whose value exceeds a certain amount to be determined in subsequent regulations), companies must do so through a tendering process, which must be published in widely read newspapers in Mozambique and on the company's website. The Law however does not give any numerical requirement as to the conditions under which 'preference' is to be given

Source: Ramdoo (2015a); AfDB (2015); Esteves et al. (2013); CCSI (2014; 2015; 2016); CGA (2014).

- III. **Stimulating the development of domestic industries.** One of the prime aims of LCPs is to stimulate the development of local industries to supply the extractive sector with goods and services. These can take several forms, namely (a) preference given to companies that are registered or head-quartered domestically, irrespective of the 'nationality' of the investment or of the management; (b) preference given to home-grown entrepreneurs, through indigenization policies as is the case in Zimbabwe, Nigeria or Angola, where certain types of activities are earmarked only for local firms that are owned and managed by people having the nationality of the country concerned; (c) compulsory joint ventures between foreign investors and with domestic entities (d) or State equity participation to scale up the 'local' capital participation. In some cases, this policy has been used to give privileged access to historically disadvantaged population (e.g. in South Africa) or first nations (e.g. in Canada or Australia).

Box 3: Examples of requirements to create local industries

To stimulate the development of indigenous companies, **Nigeria** defines 'Nigerian companies' as companies with ownership and/or infrastructure in Nigeria and that produce the goods and services in Nigeria. Similarly, in **Angola**, the law requires oil companies to source certain products and services exclusively from Angolan companies; meaning companies with majority Angolan ownership. These are however activities that do not require a high amount of capital or know-how.

Norway and the **UK** adopted joint venture strategies in the early phase of development of their hydrocarbon sectors. Similar practices exist in Libya for instance, where foreign companies are required to enter into joint ventures with local entities and where the foreign company is only allowed to hold a maximum of 49% equity stake. In **Uganda**, if goods and services required by a contractor or licensee are not available in the country, these can only be sourced by a company that has entered into a joint venture with a Ugandan company, on the condition that the latter holds an equity stake of at least 48% in the joint venture.

Source: Heum et. al. 2008; Ovadia (2016); CCSI (2015); Tordo et al. (2013).

- IV. To promote **innovation, technology and research and development**, a policy focus that is more prominent in advanced economies or in countries where the extractive sector has reached an advanced level of maturity. Often, extractive companies may be required to attribute a share of their expenditure to finance R&D projects, innovation centres or incubators. In other cases, instead of putting monetary requirements on companies, governments provide financial incentives to their local firms to encourage them to develop cutting edge technology, strategic to position themselves globally.

Box 4: Examples of technology transfer requirements**R&D requirements**

In **Angola**, Production Sharing Agreements require contractors to train all Angolan workers involved in various stages of petroleum operations in order to improve their knowledge and professional skills. Such training must necessarily comprise transfer of the knowledge of petroleum technology and the requisite management experience to capacitate Angolan personnel in using the most advanced and appropriate technology. In **Brazil**, concessionaires are required to spend 1% of gross revenues on R&D. At least 50% of these resources must be channelled to universities or R&D institutes for the implementation of activities and projects relevant for the petroleum sector and at least 10% of these resources must be allocated for the hiring of companies involved in activities of research, development and innovation, which are suppliers to the oil industry. In the **Philippines**, contractors must allocate a minimum of 1.5% of the operating costs annually to support the development of mining technology and geosciences. In **Malaysia**, every year, production sharing contractors are required contribute the equivalent of 0.5 percent of the sum of their costs and profits to R&D.

Incentives to support R&D and business development

Sweden provides significant financial support to its world-class research institutions specialised in mining-related activities and has developed at the same time, strong partnerships to connect businesses with R&D. Similarly, **Finland** provides substantial loans and grants to its public research institutions to support domestic companies in becoming global leaders in specific sections of mineral value chains.

Source: CCSI (2014; 2015); (Mckinsey: 2013).

2.3. Conditions necessary to support local content policies

LCPs entertain passionate debates in policy circles. While some view LCPs as a necessary tool to overcome the resource curse, to 'dis-enclave' the extractive sector and to broaden linkages with the rest of the economy (see for e.g. Sigam and Garcia: 2012; Ovadia: 2016), others view LCPs are protectionist policies (see for e.g. Deardorff and Stern: 1997; Grossman: 1980; Hufbauer et al.: 2013), which are necessarily doomed to fail or at best, provide to be sub-optimal outcomes, because it is not the role of Governments to 'pick winners'.

The competitiveness of companies is essentially a function of the cost effectiveness of companies in the short term, while it is assumed that government policies are geared towards a longer time horizon, although in reality, this time horizon is driven by the length of the political cycle. Should governments therefore decide to put in place policies that may have a cost in the short term, there may be a risk of undermining the viability of its mining firms. Therefore, there is a need to balance this with certain forms of incentives that would also be short-term to allow firms to absorb the costs.

If Governments decide to implement LCPs, it is therefore important to understand the potential risks and opportunities associated with those policies in order to mitigate or minimise potential costs that can be associated with LCPs. The overall economic and political costs of having 'no policies' should be carefully weighed against the costs of 'having' such measures in place, both to firms and to the society at large. For instance, in assessing the risks, even if there may be some 'efficiency leakages' for firms, one should not lose sight of the overall long-term political and economic objective that is sought through those policy choices.

In that regard, short-term costs may be necessary for long-term benefits, provided certain **conditions** are in place. These include:

- I. A *profound understanding of the political economy* of the extractives industry habitat: the equilibrium among various actors, and in particular firms (mining, intermediaries, potential suppliers), political elites, or local communities will determine the outcome of LCPs. In Ghana or Zambia for instance, the strong vested interests of intermediaries or 'briefcase businessmen' or importers, who would tend to lose most if local content policies would work for local entrepreneurs, have largely limited the scope of reforms and the implementation of local content policies (Fessehaie and Morris: 2013). In this case, LCPs may be totally ineffective and or may even do more harm to extractive companies than good to the economy. It is therefore necessary to deal with the blockers that are preventing the reforms.
- II. The *institutional readiness* in some resource-rich countries to govern LCPs in an effective manner. Countries plagued by corruption and plutocracy¹⁴, lack of transparency in administering LCPs, non-functional or heavy bureaucracy, are almost certain to fail to implement LCPs. These constraints must be addressed for LCPs to function properly. In addition, it is desirable for countries with capacity constraints to adopt a phased approach so that the labour force or suppliers have time to gradually build up their competencies and catch up on foreign competition. Ghana and Brazil have adopted a phased approach where the percentage of local sourcing was increased gradually over a period of time.
- III. The *country's effective capacity to deliver on LCP promises* is essential. In many countries, the private sector tissue is very weak, and when they exist, they are not competitiveness or are not able to supply mining firms on a scale basis. While political leaders may find a logic to 'force' mining firms to source locally, local suppliers must be ready and capable to provide quality inputs, to be price competitive and to deliver on time. Unrealistic or ill-targeted LCPs are cost-inflationary and may compromise the viability of the extractive sector. When capabilities do not exist or are insufficient governments must first support them.
- IV. *Requirements must be sector-specific*. In many cases, LCP targets are very generic because governments do not have sufficient understanding of specific needs of their different mineral sectors and/ or mining operations. Therefore, some extractive companies may find it difficult to meet those targets, for practical reasons. For example, industries that operate in remote areas may not have enough local businesses that are able to supply the firms, due to logistical difficulties to access mining operations.

¹⁴ Plutocracy defines a society ruled or controlled by the small minority of the wealthiest citizens.

3. Designing local content: What types of interventions?

While the policy orientation regarding local content is set by Governments, in practice policies are designed and implemented by a range of other actors. For instance, it is not rare to find mining companies driving their own LCPs because it makes business sense to do so, or because it is important to secure a social licence to operate. Similarly, at the level of local communities, specific community development agreements increasingly include local content provisions to prevent risks of conflict or to ensure economic benefits trickle down to the local population. This section highlights the main types of interventions by governments, industries and local communities respectively.

3.1. Public interventions

Extractive resources are public assets. In most countries (with the exception of the United States¹⁵) sub-soil assets are the property of the State. This fact is generally grounded in countries' constitutions or established in their legal frameworks. It largely explains why such high number of resource-rich countries has one form of local content policies or another - over 90 percent according to McKinsey (2013).

Governments implement LCPs in two ways:

- I. By adopting a '*stick*' approach, or a regulatory approach, where the aim is to enact and watch over the implementation of legislations and policy instruments, to which companies must comply. Measures enacted are generally mandatory in nature and have a strong compliance mechanism which, if not respected, can lead to severe financial sanctions or loss of licenses in extreme cases; or
- II. By taking a '*carrot*' approach, or an incentive-based approach, where the State acts as a facilitator, and instead, provides various forms of incentives to companies on the condition that the latter use local factors of production. These can take the form of fiscal incentives offered to companies for the establishment of facilities to locally manufacture goods or provide services which would otherwise be imported; tariff exemptions or duty drawbacks for companies who will use local suppliers; or concessionary interest rates on loans provided to local suppliers.

In practice, countries implement a mix of both types of policies, the balance being defined by:

- a) The level of economic development, the maturity of the industry or the level of dependency on resources. More advanced economies tend to move away from strict regulatory frameworks, towards softer policy instruments, which are based on financial and/or fiscal incentives and subsidies and are linked to existing and functional institutions. For instance, in the early 1970s, when Norway had a nascent hydrocarbon industry, it designed policies that were more regulatory in nature to stimulate local procurement and value addition. In particular, it used the grant of licenses, along with additional agreements targeting training of Norwegian nationals and technology transfer arrangements to ensure local content (CCSI: 2016). As the country joined the European Economic Area in 1994 and as the industry evolved, the Norwegian government eased its policy mix. Similarly, when Finland joined the EU in 1992, it relaxed certain policies initially aimed at favouring Finish companies.

¹⁵ In the US, only resources off shore and on federal lands such as national parks are controlled by the national government. Other subsoil mineral rights may belong to individual states or to private property owners. Minerals on Native American lands are subject to special rules.

- b) The degree of success or failures of previous attempts in stimulating better use of local factors of production. For instance, in Nigeria, prior to the enactment of the Nigeria Local Content Development Act, LCPs were negotiated in individual contracts. However, these were rarely implemented by international extractives companies, including because they lacked the force of law and therefore had no penalty for non-compliance. With the introduction of local content laws, with appropriate sanctions, it is observed that the level of compliance has improved, assuming a more positive impact on local content uptake (although this does not guarantee effectiveness of policies).

Therefore, to stimulate local content, public interventions take two forms¹⁶:

- I. They are **mandatory** in nature. Companies have a legal obligation to meet certain requirements, as required by specific legal frameworks or contractual agreements. Mandatory requirements take the form of **quantitative** targets, in terms of *volume* (such as the number of local staff to be employed or number of contracts to be awarded to local suppliers) or *value* (i.e. a percentage of spending on local procurement). Alternatively, they can be **qualitative** in nature, such as an obligation to report or justify hiring foreign labour or sourcing inputs from abroad (as in the case in Australia) or to give preferential treatment to local suppliers or labour force. Although no numerical targets are specified, companies are nonetheless obliged to abide by the requirements, pending sanctions for non-compliance.

Box 5: Where to find LCPs?

Primary legislations, which are enacted in Acts of Parliaments and statutes. Examples include Nigeria's Oil and Gas Industry Content Development Act 2010; Ghana's Petroleum (Local Content and Local Participation) Regulation of 2013; or Mozambican Petroleum Law issued on 18 August 2014.

Secondary legislations, which are delegated legislations and which emanate from primary legislations. Examples include *ministerial orders* like those approved in Angola aimed at imposing specific local content obligations on companies carrying out oil and gas activities in the country. In countries with effective decentralized government systems, secondary legislations can be found at the State or Territory level, like in Australia or Canada. In Australia, for instance, each state and territory has its own mining regime, with specific legal and administrative frameworks to support the sector. Mining activities are thus regulated by (i) mining Acts which administer licenses and leases; (ii) State Agreements, which set out the rights and obligations of the State and the developer and can include details on local sourcing and employment; (iii) indigenous land and use agreements, between mining companies and native title owners, where more specific local content provisions are developed to fit the needs of the indigenous community.

Policy statements: Some countries enshrine their LCP objectives and principles in broad statements of government policy, such as the 2011 report on Enhancing National Participation in the Oil and Gas Industry in Uganda.

Mining contracts, concession agreements or production sharing agreements, which contain the legally binding requirements in respect of local content. Tanzania's local content obligations are enshrined in its new model PSA and natural gas policy (both of which were published in 2013), and significantly, in the recently published first draft of the "Local Content Policy of Tanzania for Oil and Gas Industry".

Community Development Agreements/ Impact and Benefit Agreements, which are formal agreements between investors in the mining sector and the communities that are likely to be impacted by the project. Of a voluntary or mandatory nature, these agreements are expected to engage companies in delivering social and economic benefits to the local community. Countries like Australia, Canada, Papua New Guinea, Ghana or Laos have such agreements in place (see CCSI: 2016).

¹⁶ For a more detailed analysis, see Ramdoo (2015a) and Ramdoo and Korinek (2016 - forthcoming).

- II. They are **voluntary** in nature. Companies generally agree to support local content policy objectives set by governments, based on their own terms and conditional upon the fact that those policies do not have a negative effect on the competitiveness of industries. These policies work best in countries where institutions are strong, where the economic structure is more diversified, local suppliers are available and the workforce has the capacity to take up opportunities. In this case, companies may agree to unbundle their procurement requirements, publish their procurement needs, vacancy notices and share as much information as is necessary to support local participation. No targets are set. However, little monitoring is done to see to what extent commitments have been realized. In Australia, for instance, various States have developed voluntary codes of conduct with mining companies, in particular with a view to improve the relationship with local communities.

3.2. Private sector interventions

While the role of governments is to set the framework for LCPs, in practice, the drive to implement LCPs must come from the industry itself. While some mining companies do the minimum to apply the rules, others are much more proactive and take their own initiative to seek local and innovative solutions to source their procurement needs. They acknowledge the business benefits that they can derive from providing suppliers' opportunities to local communities and local enterprises. These initiatives are motivated by two factors: supply chain development and/or securing the social license to operate.

3.2.1. Supply chain development

With experience, many companies are moving away from the old paradigm where local content is viewed with a compliance mind-set and hence do the strict minimum to meet regulatory requirements, while not committing to engage their core business operations. In such a case, the interaction with the local community is viewed purely as a *risk management* strategy.

Today, as more countries raise the bar regarding increasing benefits at the local level, firms are shifting their approach to extract business opportunities of mutual benefit. To that effect, many mining companies integrate local supply chains support in their procurement sourcing policies as a *cost-effectiveness or savings* strategy. These include a focus on core inputs from local businesses, when the latter can supply quality, timely and competitive products. Support also sometimes includes accompanying measures for suppliers or local employees to meet the standards and requirements of companies.

To achieve this objective, mining companies build strong partnerships with local businesses by aligning common interests or by joining forces with other mining companies to tap onto economies of scale and on to maximise mutual benefits from developing the local supply chain and sharing knowledge of local firms.

Also, these can take the form of private-public partnerships, where industries work with government institutions to find and support business solutions for some critical operations.

Box 6: Example of best practices in the industry**Vale, Brazil: Support for local suppliers**

In Brazil, in States where Vale operates (e.g. states of Pará, Maranhão, Espírito Santo, and Minas Gerais), the company has strengthened its partnerships with local partners, in particular with business associations, public and private sectors. Considered as a strategic priority, Vale has invested in programmes for the development of its suppliers. Those programmes support qualification of suppliers and local workforces to improve the latter's competitiveness and to enable them to meet the needs of large client companies. The programmes have proved helpful in creating and in generating household income. In 2007, it was reported that more than 2,000 companies had been supported.

BHP Billiton's World Class Suppliers Programme in Chile

Chile is often referred as the best example when it comes to suppliers development programmes. BHP Billiton established a world-class suppliers programme to support existing local suppliers so they can compete globally. This was done through a collaborative effort between BHP's business and community relations functions, where local suppliers were encouraged to develop innovative solutions to manage various areas of the firm's operations, such as water, energy, human capital, maintenance, air quality, acid mist control, and leaching. Suppliers are also encouraged to have a global outreach. The objective was to have at least 250 Chilean world-class suppliers by 2020 that could export their services around the world. In December 2012, the programme was estimated to have saved US\$121 million worth on the cost of inputs, goods, and services, working with 36 suppliers, employing over 5,000 people and generating US\$400 million of combined sales.

Antamina's Suppliers of Excellence Programme, Peru

In 2012, Antamina, the largest producer of copper and zinc in Peru, started a programme called "*Developing Suppliers of Excellence for the Mining Industry of Peru*". The objectives were (i) to improve the productivity of the company and (ii) to develop the capacity of suppliers to provide increasingly complex services for the industry. The Programme essentially put challenges 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 company offered to interested and capable suppliers the opportunity to co-design these solutions, leading to the development of cooperative relationships therefore changing the nature of engagement with suppliers from a purely transactional one. Following a process of strategic selection, suppliers were offered the opportunity to test their solutions before being awarded contracts.

The case of Exxon Mobil

The oil company ExxonMobil has implemented numerous local content strategies in various countries. These were a factor of countries' legal frameworks, years, infrastructure, and suppliers capacity. However, more recently, the company has adopted its own global strategy for national content, laying down its own guidelines and standards that could be deployed at every operation. ExxonMobil's approach is unique in the way it integrates community investment into its overall strategy for pursuing national content. These also include investments in health, education, and infrastructure. The three pillars to any ExxonMobil National Content Plan are (i) workforce development (ii) strategic community investments and (iii) suppliers' development.

Source: Vale Sustainability Report (2007); Shared Value Initiative (2014).

3.2.2. Support to workforce productivity

The mining sector is known to be capital intensive, except during the construction phase where temporary and unskilled labour is in high demand. During the production phase however, most labour requirements for core activities are highly skilled and quite technical in nature. In many resource-rich countries, these types of labour are however not always readily available locally. Companies therefore must have recourse to foreign labour to fill in the gaps. This can cause serious tensions with local population, in particular if the rate of unemployment is high in the affected community.

In response, as a way to improve their local footprint regarding local labour, many mining companies choose to reinforce their workers' skills and capabilities and provide training opportunities for the local population. It is a strategic concern because it can significantly scale up the productivity of workers and companies but also a developmental one, because it can enable the local population to develop their capacities and to seize employment opportunities in the mining industry and raise their incomes

Efforts to support workers' productivity include:

- I. Identifying the skills gap with a view to support local initiatives to close the supply deficit;
- II. Financial support to local training and vocational institutions;
- III. Providing scholarships and bursaries to students; and
- IV. Provide continued access to training and skills development to employees, including through intra-corporate internships.

Box 7: Workforce and Supplier Productivity

Newmont's Ahafo and Akyem worker apprenticeship programs in **Ghana** together enhanced the productivity of the workforce by supporting the local workforce with high technical skills, such as electricians, mechanics, mine maintenance and operations technicians, and welders. The objectives were (i) to reduce labour costs of employing non-local staff (estimated at up to 20 times higher than local employees for the same functions) (ii) to create a pool of trained local workforce and (iii) to increase local labour's employability should Newmont not be able to hire all trained locals.

In **South Africa**, Kumba Iron Ore established a training centre in Kathu to train people in technical skills. Students receive a training qualification and go on to a number of different jobs including those at Anglo American's operations.

In **Tanzania**, mining companies in the gold sector, led by AngloGold Ashanti and Acacia Mining plc, in partnership with the government have formed a partnership to address the specific need for technical vocational skills. In 2008, an Integrated Mine Technical Training (IMTT) Programme was created through the Tanzanian Chamber of Minerals and Energy and the Tanzanian Vocational Education and Training Authority to offer world-class training to the local population.

In 2012, Tullow opened an enterprise centre in **Uganda** to provide business skills training, mentoring and networking, and information on opportunities within Tullow's supply chain to local entrepreneurs and SMEs. Simultaneously, the company launched its Tullow Group Scholarship Scheme. The Scheme has brought more than 180 students to Europe for postgraduate studies.

Source: Shared Value Initiative (2014); World Gold Council, Chamber of Mines of South Africa, PwC (2015).

While it is clear that extractive firms can have greater impact on suppliers development, employment and on cost-savings by developing inclusive business models, unfortunately, these types of inclusive business models are not sufficiently widespread across the industry as may be possible and desirable. Long-term benefits are undeniable and would merit more efforts and attention on the part of companies. Where they exist, mining companies do not always collaborate among themselves to make combined orders to provide the critical business mass to local suppliers, who often struggle to meet specific requirements in limited of individual mining companies. This prevents suppliers from benefiting from economies of scale.

3.3. Working with local communities

Local content can be a strategic contribution to securing a social license to operate and hence to leaving a positive legacy in countries beyond the life cycle of the mine. In that sense, supporting development projects that are important for communities' well-being can significantly reduce extractive projects social risks.

Repeated tensions and conflicts with local communities have prompted mining companies and governments to develop some forms of structured engagement with the communities that live around their mines. This approach takes a slightly different slant in the sense that it seeks to mitigate or offset the effects of extractive activities on communities' livelihoods rather than create value in the first place. The approach is more targeted than that taken by governments for instance, as they are geared towards a defined population, that generally live in a short distance from the mine (Dupuy: 2014).

While there is no standard model for these arrangements, partnerships aimed at developing more sustainable and mutually beneficial relationships have evolved in particular contexts and often on an ad-hoc basis although those are becoming increasingly popular. For this reason, there are wide disparities in approaches across countries and across companies as well as in the scope and depth of those partnerships or community development agreements.

The drive for community development agreements can come from the Government, from mining companies or from communities themselves. On their side, Governments may impose a legal obligation to 'consult' local or indigenous communities before a company starts a project. This is the case in Canada for example. The 1982 Constitution Act recognised and affirmed the existing Aboriginal and treaty rights of the Aboriginal peoples of Canada, which included the First Nations (Indian), Inuit and Metis people of Canada. In this regard, federal and provincial governments have a general duty to consult any Aboriginal group whose treaty rights may be affected by a governmental decision, including the grant of permits or licences relating to mining activity¹⁷. These consultations generally give rise to community agreements that have a long-term objective to ensure and maintain the dialogue process between the mine and the communities. Similarly, in Australia, the Aboriginal Lands Rights (Northern Territory) Act of 1976 (amended in 1987) and more recently, the Native Title Act of 1993, impose statutory requirements to companies to negotiate with aboriginal communities, who have the right of veto over exploration proposals in case negotiation are not satisfactory (Fitzgerald: 2001; Esteves et al.: 2010).

When driven by companies, community development agreements aim at minimising the risk of potential tension or addressing the effects of a conflict with the local community. The purpose is to manage the company's reputational risk and hence secure a social license to operate. These forms of agreements are of a voluntary nature but comprise of commitments, which companies generally respect.

¹⁷ 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'.

The scope of these agreements varies significantly as highlighted in Box 8. They can be philanthropic or provide more sustainable economic benefits to the communities, such as local content guarantees in the form of employment or business opportunities.

Box 8: Examples of voluntary local content provisions in community agreements

In **Canada**, the 1995 Raglan Agreement, is today considered as a benchmark for First Nations mining agreements. Located in the Nunavik Territory, the mining company (now owned by Xstrata Nickel) has signed an agreement with the two closest communities to the mine and 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. The agreement contains specific requirements regarding employment and support to local enterprises. In terms of employment and training, the company has agreed to support training of the local population to ensure that a maximum number of jobs can be filled by Inuits. The agreement also contains specific commitments regarding local sourcing of goods and services to the mining operations, such as the identification of specific categories of services. The company committed to enter into direct contract negotiations solely with an Inuit firms, on the condition that such firms were available.

Still in **Canada**, the ULU Inuit Impact and Benefits Agreement (1996) between the Echo Bay Mines Ltd. and the Kitikmeot Inuit Association is expected to support the creation of Inuit business and industry, notably through a provision that contains an Inuit 'content formula' to help decide how contracts are to be awarded. This is supported by the unbundling of contracts "when practicable" to facilitate tender from local companies. There is a target of 60% Inuit employment in the project that applied for the mining companies and its contractors or subcontractors.

In **Australia**, Rio Tinto Argyle Diamond Mine has entered into an agreement with traditional owners in Western Australia. The Agreement contains contractual obligations notably to provide business opportunities to the local community. The company 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. Additionally, 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 owner businesses in the contract, how it will employ and/or train indigenous owners, and how it will provide benefits to traditional owners.

Similarly, the Agreement between Century Mine, Queensland Government and the four native groups of Waanyi, Mingginda, Gkuthaarn and Kukatj requires the company to tender and award contracts after it has identified viable and eligible. The company is also sought 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: Raglan Agreement (1995); Keeping (1998); O'Reilly and Eacott (1998); ISS (2001); Esteves et al. (2010).

4. Conclusion: scaling up impact

In recent years, in particular during the commodity price boom, there has been a noticeable shift towards local content requirements in resource-rich countries. Among the explanations was the imperative to increase the benefits of the mineral sector to the local economy, beyond rents and taxes. Despite the slowdown in commodity prices since 2015, few countries have back-pedalled on these reforms although the implementation of legal frameworks seems to take more time than initially forecasted. In fact the financial difficulties, once again caused by low commodity prices, reaffirmed countries' convictions that sustainable economic diversification away from commodity dependency was a necessity in order to build a resilient and sustainable future.

It is important to assess to what extent LCPs have delivered or not on expectations regarding upstream linkages. This allows countries to gauge the effectiveness of their policy choices and to demonstrate results. However, in many countries, it is too early to see big transformations, given that those measures are relatively new and that there remain important implementation gaps. Further, change is a long-term dynamic process, which may have less visible but important political and qualitative impacts and which should not be overlooked. Scaling up impact therefore requires some fundamental elements to be in place.

4.1. Getting the debate right

A major challenge with local content lies in the understanding of what 'local' and 'content' are. Today, few countries have explicit and clear definitions of what 'local' and 'content' are in their legal frameworks. This leaves a lot of room for creative interpretations both within government and among companies. As long as this is not clear, measuring the impact will be difficult. In South Africa, the 2015 assessment of the Mining Charter released by the Department of Mineral Resources (DMR) led to a court dispute with the South African Chamber of Mines, because of a different interpretation of the ownership requirement. In this case, there was no agreement on the level of Historically Disadvantaged South Africans shareholding threshold, due to unclear definition of what 'participation' was. The case led to a court dispute¹⁸ between the Chamber of Mines and the DMR to clarify the notion of participation.

Furthermore, many companies continue to view local content as a 'compliance' issue, and hence keep local content away from their core business functions by doing the strict minimum to comply with the rules. This approach assumes local content has a negative impact on businesses and fails to see the potential business benefit that can be derived from those policies, notably through the savings that could be made if local supply chains can meet companies' needs on a competitive basis. If certain conditions are met, local content can significantly shave off costs. This could be a game-changer in particular during tight financial situations such as during commodity downturns, where the focus is on cost efficiency.

4.2. Putting in place monitoring and enforcement mechanisms

It is often difficult to measure the macroeconomic impact of LCPs simply because few countries have solid monitoring and enforcement mechanism in place. Despite mixed success in delivering ambitious local content results, in Africa, Nigeria is often referred as a local content 'monitoring' success story because its LCPs are supported by an institution, called the Nigerian Content Development and Monitoring Board whose role is to oversee, monitor and implement the provisions of the National Content Development Act. The institution ensures compliance, and can even take sanctions in case companies do not abide to their commitments. Following Nigeria's example, Ghana has recently established a "Local Content Committee" for its oil sector to monitor and coordinate all aspects of the implementation of 2013 local content Regulation.

Significant challenges must be addressed to ensure effective implementation. To avoid anti-competitive practices and hence negatively affect companies' productivity, in many countries, local content requirements are only compulsory if extractive companies can find better alternatives in terms of price, delivery or quality. In countries where capacity to deliver is lacking or weak, extractive companies do not source locally. This weakens the enforcement capacity of governments.

¹⁸ In 2015, the South African Chamber of Mines brought a case against the Department of Mineral Resources around contested clauses in the Mining Charter regarding black economic empowerment. The chamber approached the High Court for a declaratory order to give guidance on the correct interpretation of the charter obligation on the holder of a mining right to continuously restore the level of ownership by historically disadvantaged persons to 26%. The Chamber claims that it would meet the target, even if those stakes are later resold. The DMR department argues, for its part, that companies should maintain black shareholding above the threshold at all times.

Enforcement does not guarantee the success of policies, as the case of Nigeria highlights. While institutions are important to oversee how companies are implementing numerical targets, they are not sufficient in themselves to ensure that the conditions under which companies operate are optimal or conducive to generate local economic benefits. What is therefore needed is a systematic mechanism that creates a 'feedback loop' so that governments and companies can together review targets that are realistic and achievable.

4.3. Success is a puzzle masterpiece: What role for each stakeholder?

Compliance with, and the implementation of, LCPs are a joint responsibility of extractive industries and national and local governments. Although compliance necessarily rests with companies, there is clear need for solid partnerships among all stakeholders involved to achieve intended goals at all levels of the life cycle of extractive projects and all along the value chain.

Governments' role does not end in simply enacting LCPs and then leaving implementation to companies. They have a fundamental role of facilitator to ensure all the conditions are right for companies to perform. These include:

1. **Gaining a detailed knowledge** of resource endowments and a profound understanding of resource supply chains in order to know exactly where the value is, and what benefits can realistically be achieved. LCPs must be targeted and context-specific to avoid hurting the competitiveness of companies.
2. **Mastering the country's competitive edge.** Benefits that can be captured locally depends on number of factors: (i) the type of resources; (ii) the level of industrialisation; (iii) a country's unique aspects such as location, language etc. Some factors of production can be easily localised (eg. manual and low-skilled labour and basic materials); others require significant industrial adjustments. Both governments and companies must have detailed knowledge of the macroeconomic opportunities and challenges of the country.
3. **Carefully assessing the opportunity cost of regulatory intervention.** This implies critically assessing whether regulations would unnecessarily raise costs and damage the competitiveness of extractive companies. To work, LCPs must therefore be flexible and adaptable.
4. **Ensuring that the business environment is conducive.** Governments must address all hidden costs of doing business hampering local sourcing and affecting the development of local suppliers. These include, amongst others, ensuring requisite skills and know-how are available; providing necessary financial support and incentives to small and medium suppliers to the later can compete with international providers; addressing hard and soft infrastructure bottlenecks; facilitating market access to mining companies and by ensuring coherent industrial and trade policies.
5. **Avoiding creating perverse** incentives by putting a sunset clause on certain forms of local content.

Since success is a joint responsibility, on their side extractive industries can play an active role by putting local content at the core of their business functions. They can support local suppliers by being proactive in creating suppliers development programmes that provide tailor-made solutions to their needs and by unbundling certain procurement contracts to allow local suppliers to have a secure market. These do not have to be prescribed by the law and may even render mandatory LCPs unnecessary because they would respond to the aspirations of shared value creation.

Similarly, inserting local content clauses into development contracts with the local community may be another useful approach. But this necessitates a careful definition of policy objectives with the local community while managing their expectations about what is realistic (or not). Companies must therefore carefully:

1. Assess the competencies and capabilities of their potential local collaborators in order to define the scope of their engagement with the interested stakeholders;
2. Based on that, jointly agree what parts of their supply chain can realistically be sourced from the local communities and what types of support would be required to improve quality, standards, delivery mechanisms etc. Support does not need to come exclusively from mining companies. To ensure sustainability in provision of training and capacity building for labour and suppliers, it is important to develop programmes jointly with local and national authorities, universities and technical institutions.
3. Companies' own efforts that contribute meaningfully to local content and shared value must be communicated to the Government to ensure that the latter is aware of such initiatives and to ensure coherence with national development plans.
4. Extractive companies are reluctant to collaborate among themselves as they see other more as competitors than as collaborators. However, there are merits for mining companies in a country work together to find scalable solutions to support local suppliers. In Chile, the copper global company BHP Billiton set up a World Class Supplier Programme to generate innovative technological solutions to operational and environmental challenges that the company was facing. The programme was developed in partnership with Codelco, the national copper company. Elsewhere, companies partner with international institutions such as the International Financial Corporation (IFC) to develop programmes to support suppliers. Building on the expertise, know-how and synergies from other industries may be useful to provide economies of scale to allow small suppliers to grow and compete globally.

Bibliography

- ACET. 2015. *Local Content and Value Addition in Ghana's Mineral, Oil, and Gas Sectors: Is Ghana Getting It Right?*
- Africa Progress Panel (2013). *Equity in Extractives. Stewarding Africa's Natural Resources for All*. Africa Progress Report 2016. Geneva.
- African Development Bank Group and the Bill and Melinda Gates Foundation. 2015. *Paper 6 : Creating local content for human development in Africa's new natural resource-rich countries*, Flagship Report Paper Series, June.
- African Development Bank. 2015. *Delivering on the promise: Leveraging natural resources to accelerate human development in Africa*. Flagship Report, prepared by the AfDB and BMGF.
- Auty, R. 1993. *Sustaining development in mineral economies: The resource curse thesis*. Routledge.
- Burr, L. 2014. *The Development of Natural Resource Linkages in Mozambique: The Ruling Elite Capture of New Economic Opportunities*, Danish Institute for International Studies and Assistant Professor at the Institute for Society and Globalization at Roskilde University, Denmark.
- Castel-Branco C. N. 2002. *Economic Linkages between South Africa and Mozambique*. Maputo.
- Castel-Branco C.N. 2004. *What is the Experience and Impact of South African Trade and Investment on Growth and Development of Host Economies? A view from Mozambique*.
- CGA. 2014. *Mozambique's new mining Law and the key changes it introduces*. Maputo.
- Chamber of Mines of South Africa. 2015. *Assessment of Mining Charter 2014 targets*.

- Chamber of Mines of South Africa. 2016. *Fact Sheet 2015. Skills Development*. Johannesburg.
- Columbia Centre on Sustainable Development. 2014. Local Content. Angola, Petroleum, Columbia University.
- Columbia Centre on Sustainable Development. 2014. Local Content. Ghana, Petroleum, Columbia University.
- Columbia Centre on Sustainable Development. 2014. Local Content. Ghana, Mining, Columbia University.
- Columbia Centre on Sustainable Development. 2014. Local Content. Nigeria, Petroleum, Columbia University.
- Columbia Centre on Sustainable Development. 2014. Local Content. Zambia, Mining, Columbia University.
- Columbia Centre on Sustainable Development. 2015. Local Content, Philippines Mining, Columbia University.
- Columbia Centre on Sustainable Development. 2015. Local Content. South Africa, Mining and Petroleum, Columbia University.
- Columbia Centre on Sustainable Development. 2016. Local Content. Norway, Petroleum. Columbia University.
- Columbia Centre on Sustainable International Investment, *Capturing the benefits of a transfer of mineral rights - scenarios to capture by contract/legislation/regulation and issues to consider*.
- Corden. W.M. 1984. *Booming sector and Dutch disease economics: Survey and consolidation*. Oxford Economic Papers, volume 36, number 3, 1984.
- Deardorff, A. V. and R. M. Stern. 1997. *Measurement of Non-Tariff Barriers*. Working Papers, No. 179, OECD Publishing.
- Department of Mineral Resources. 2010. *Publication of the Amendment of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Mineral Industry*. Government Notice. Republic of South Africa. 20 September 2010.
- Department of Mineral Resources. 2014. *South Africa's mineral industry 2013 - 2014*. Department: Mineral Resources. Republic of South Africa.
- Department of Mineral Resources. 2015. *Assessment of the Broad-Economic Empowerment Charter for the South African Mining Industry (Mining Charter)*. Republic of South Africa. May 2015.
- Department of Mineral Resources. 2015. *South Africa's infrastructural development for economic growth and prosperity. Limestone the key cementing ingredient*. Directorate: Mineral economics. Republic of South Africa. Report R 113/2015.
- Dupuy K. 2014. *Community Development Requirements in Mining Laws. Global Dataset*. Created by Kendra Dupuy PhD Candidate, University of Washington Department of Political Science, Seattle, USA & Natural Resource Management Advisor, U4 Anticorruption Center, Chr. Michelsen Institute, Bergen, Norway.
- Esteves A. M., B. Coyne and A. Moreno. 2013. *Local Content Initiatives: Enhancing the Subnational Benefits of the Oil, Gas and Mining Sectors*. Briefing. Natural Resource Governance Institute.
- Fessehaie J. and M. Morris. 2013. *Value Chain Dynamics of Chinese Copper Mining in Zambia: Enclave or Linkage Development?* The European Journal of Development Research. September 2013. Volume 25, Issue 4, Pp. 537 – 556.
- Fessehaie, J. 2011. *Development and Knowledge Intensification in Industries Upstream of Zambia's Copper Mining Sector*. MMCP Discussion Paper, University of Cape Town and the Open University.

- Fessehaie, J. 2014. *Case study on the mining capital equipment value chain in South Africa and Zambia*. Regional industrialisation research project. CCRED and University of Johannesburg. 10 December 2014.
- Fitzgerald, A. 2001. *Mining Agreements. Negotiated Frameworks in the Australian Mineral sector*. Barrister. Supreme Court of Queensland. Republished in 2010.
- Fraser Institute. 2012. *What are Impact and Benefit Agreements (IBAs)?* [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)
- Gbedi, D. O. and J. F Adebisi. 2013. *Managing Local Content Policies in the Extractive Industries*. Research Journal of Finance and Accounting. Vol.4, No.7, 2013.
- Gelb A. et al.. 1988. *Oil windfalls: Blessing or curse?* World Bank Research, 1988. Washington D.C.
- Global Business Guide Indonesia. 2014. *Going Global: Understanding Indonesia's Local Content Requirements*. Business Updates. 5 May 2014
- Government of the Republic of Liberia. 2000. *Mining and Minerals Law*.
- Government of the Republic of Liberia. 2005. *Mineral Development Agreement between the Republic of Liberia and Mittal Steel Holding N.V.* Monrovia, 17 August 2005.
- Government of the Republic of Liberia. 2009. *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* of 19 January 2009.
- Government of the Republic of Liberia. 2010. *Mining and Minerals Policy*.
- Government of the Republic of Liberia. 2011. *Act to Ratify the 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*. Approved on August 22, 2011.
- Grossman, G. M. 1981. *The Theory of Domestic Content Protection and Content Preference*. Quarterly Journal of Economics 96, no. 4 (November):583–603
- Grupo FARO and ACODE. 2015. *Local Content Frameworks in Latin American and African Oil and Gas Sector*. Design and Methods Paper. Research Paper Series. ELLA.
- Hackenbruch M. and J. D. Pluess. 2011. *Commercial Value From Sustainable Local Benefits in the Extractive Industries: Local Content*. BSR.
- Heum, P. 2008. *Local Content Development - Experiences from Oil and Gas Activities in Norway*. SNF Working Paper No. 02/08. Institute for Research in Economics and Business Administration. Bergen.
- Hufbauer, G. et al. 2013. "Local Content Requirements: Report on a Global Problem." Draft June 2013.
- ICMM. 2014. *Enhancing Mining's Contribution to the Zambian Economy and Society. Mining Partnerships for Development Report*. April 2014.
- ICMM. 2015. *Mining in Ghana, What future can we expect? Mining: Partnerships for Development*.
- International Council on Mining and Metals. 2012. *IBRAM-ICMM Brazil country case study. Building institutions for sustainable development*, Presentation, Belem, November 2012.
- International Council on Mining and Metals. 2013. *The mining sector in Brazil: building institutions for sustainable development*, ICMM Mining: Partnerships for Development, April 2013, London.
- ISS. 2001. *Agreements between mining companies and indigenous communities. A Report to the Australian Minerals and Energy Environment Foundation*. Report prepared by Indigenous Support Services and ACYL consulting.
- Kaplan, D. 2011. *South African mining equipment and related services: growth, constraints and policy*. MMCP Discussion Paper No. 5. Cape Town. March 2011.

- KPMG. 2013. *Mining Mozambique. Country Mining Guide*, Strategy Series, Maputo, October 2013.
- Loutit J., J. Mandelbaum, S. Szoke-Burke. 2016. *Emerging Practices in Community Development Agreements*. Columbia Centre for Sustainable Investment.
- McKinsey Global Institute. 2013. *Reversing the Curse: Maximizing the Potential of Resource-Driven Economies*, December 2013.
- Morris M., R. Kaplinski and D. Kaplan. 2012. *One Thing Leads to Another. Promoting Industrialization by Making the Most of the Commodity Boom in Sub-Saharan Africa*. University of Cape Town.
- Morris, M., R. Kaplinsky and D. Kaplan. 2011a. *One Thing Leads to Another – Commodities, Linkages and Industrial Development - A Conceptual Overview*. MMCP Discussion Paper. Milton Keynes and Cape Town, The Open University and University of Cape Town.
- Morris, M., R. Kaplinsky and D. Kaplan. 2011b. *Commodities and Linkages Industrialisation in Sub Saharan Africa*. MMCP Discussion Paper. Milton Keynes and Cape Town. The Open University and University of Cape Town.
- Morris, M., R. Kaplinsky and D. Kaplan. 2011c. *Commodities and Linkages: Meeting the Policy Challenge*. MMCP Discussion Paper. Milton Keynes and Cape Town. The Open University and University of Cape Town.
- Nikièma, S. H. 2014. *Performance Requirements in Investment Treaties*, IISD Best Practices Series, December 2014.
- Nordås, H. Kyvik, E. Vatne and P. Heum. 2003. *The upstream petroleum industry and local industrial development. A comparative study*, Bergen: The Institute for Research in Economics and Business Administration, SNF-Report 08/03.
- Northern Territory of Australia 2000. *Merlin Project Agreement Ratification Act*. as in force at 1 July 2000.
- Northern Territory of Australia. 2007. *MacArthur River Project Agreement Ratification Act*, as in force at 4 May 2007.
- O'Reilly, K. and E. Eacott. 1998. *Aboriginal People and Impact and Benefits Agreements: Report of a National Workshop*, 29 – 31 May 1998 organised by the Canadian Artic Resources Committee, Yellowknife N.W.T.
- Ovadia 2016. *Is Natural Resource-Based Development still Realistic for Africa?* E-international Relations. February, 10. 2016.
- Ploeg, F. van der. 2011. "Natural resources: Curse or blessing?" *Journal of Economic Literature*, volume 49, number 2.
- PwC. 2015. *Local Content in Oil and Gas. Recasting the Conversation*. Strategy& Formerly Booz and Company.
- Ramdoos I. 2015c. *Resource-based industrialisation in Africa: Optimising linkages and value chains in the extractive sector*. Discussion Paper 179, ECDPM, Maastricht.
- Ramdoos, I. 2015a. *Industrial Policies in a Changing World: What Prospects for Low-Income Countries?* The E15 Initiative, Geneva.
- Ramdoos, I. 2015b. *Unpacking local content requirements in the extractive sector: What implications for the global trade and investment frameworks?* The E15 Initiative, Geneva.
- Ramdoos, I. 2012. *From Curse to Purse. Making Extractive Resources Work for Development*. Discussion Paper 136. ECDPM. Maastricht.
- Ramdoos, I. 2013. *Fixing Broken Links. Linking Extractive Sectors to Productive Value Chains*. Discussion Paper 143. ECDPM. Maastricht

- Russ S. 2014. *Regulatory reform in the Liberian mining sector: Striking the right balance*. GREAT Insights, Volume 3 Issue 7, July/August 2014, ECDPM.
- Sachs J. D and Warner A. M. 1995. *Natural resource abundance and economic growth*. in Leading issues in economic development, G. Meier and J. Rauch, eds., Oxford University Press, 1995 and revised 1997
- Shared Value Initiative, 2014. *Extracting with Purpose. Creating Shared Value in the Oil and Gas and Mining Sectors' Companies and Communities*. FSG Reimaging Social Change.
- Sigam, C. and L. Garcia 2012. *Extractive Industries: Optimising Value Retention in Host Countries*, UNCTAD, Geneva.
- Stevens P., G. Lahn and J. Kooroshy. 2015. *The Resource Curse Revisited*. Research Paper. Energy, Environment and Resources. Chatham House. London.
- Tordo, S. et al. 2011. *National Oil Companies and Value Creation*, World Bank Working Paper 218.
- Tordo, S. et al. 2013. *Local Content Policies in the Oil and Gas Sector*, A World Bank Study.
- USAID. 2012. *Mozambique Business Linkages Review. An overview of key experience, issues and lessons*, SPEED, publication prepared by DAI and Nathan Associates for USAID, October.
- USAID. 2013. *Policy options for strengthening local content in Mozambique. Draft Report for Review*, SPEED, publication prepared by DAI and Nathan Associates for USAID.
- Vale, E. and A. L. S. Carvalho. 1998. *Brazilian Mining Code. A mineral economic focus*, Raw Material Group, September 1998, pp. 12 - 18, Stockholm.
- Vale. 2007. *Sustainability Report*. Rio de Janeiro.
- Vale. 2012. *Our history*. Book published as part of the celebrations for Vale's 70-year anniversary.
- Vale. 2015. *Vale's programmes for meeting the skills gap*.
- Wallace A. 2014. *Understanding Local Content Policies in Africa's Petroleum Sector*. Published in the National Law Review. May 2016.
- Warner, M. 2011. *Local Content in Procurement: Creating Local Jobs and Competitive Domestic Industries in Supply Chains*. Green Leaf Publishing. London.
- Wheeler. D. 1984. *Sources of stagnation in sub-Saharan Africa*. World Development, volume1, issue 1, January 1984.
- World Bank. 2012. *Increasing Local Procurement By the Mining Industry in West Africa*. Road-test version. January. The World Bank Group. Washington D.C.
- World Bank. 2015. *A Practical Guide to Increasing Local Procurement In West Africa*, World Bank and Kaiser Economic Development Partners, February.
- World Gold Council. 2014. *Responsible Gold Mining and Value Distribution, A Global Assessment of the Economic Value Created and Distributed by Members of the World Gold Council*, October.

About ECDPM

ECDPM was established in 1986 as an independent foundation to improve European cooperation with the group of African, Caribbean and Pacific countries (ACP). Its main goal today is to broker effective partnerships between the European Union and the developing world, especially Africa. ECDPM promotes inclusive forms of development and cooperates with public and private sector organisations to better manage international relations. It also supports the reform of policies and institutions in both Europe and the developing world. One of ECDPM's key strengths is its extensive network of relations in developing countries, including emerging economies. Among its partners are multilateral institutions, international centres of excellence and a broad range of state and non-state organisations.

Thematic priorities

ECDPM organises its work around four themes:

- Reconciling values and interests in the external action of the EU and other international players
- Promoting economic governance and trade for inclusive and sustainable growth
- Supporting societal dynamics of change related to democracy and governance in developing countries, particularly Africa
- Addressing food security as a global public good through information and support to regional integration, markets and agriculture

Approach

ECDPM is a “think and do tank”. It links policies and practice using a mix of roles and methods. ECDPM organises and facilitates policy dialogues, provides tailor-made analysis and advice, participates in South-North networks and does policy-oriented research with partners from the South.

ECDPM also assists with the implementation of policies and has a strong track record in evaluating policy impact. ECDPM's activities are largely designed to support institutions in the developing world to define their own agendas. ECDPM brings a frank and independent perspective to its activities, entering partnerships with an open mind and a clear focus on results.

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ECDPM Discussion Papers present initial findings of work-in-progress at the Centre to facilitate meaningful and substantive exchange on key policy questions. The aim is to stimulate broader reflection and informed debate on EU external action, with a focus on relations with countries in the South.

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