Local Content

Overview

Local content policies should aim to achieve a balance between protectionism and nurturing competitiveness so that growing national sectors and industries benefit from major investments (international and domestic), transfers of technology and know-how.

This topic overview discusses the requirements, constraints, and risks associated with developing local content policies and legislation, the key points in the oil and gas, and mining lifecycle where local content can be most effective, as well as providing a road map identifying key steps to developing local content policies.

This topic overview is comprised of the following chapters:

- Local content definition
- WTO requirements and national constraints on policymaking
- Risks of local content legislation
- Country cases in the oil and gas industry
- Country cases in the mining industry
- Mining supply chain at a glance: seeking opportunities for intervention
- Oil and gas supply chain at a glance: seeking opportunities for intervention
- Local content and procurement processes
- Road map to developing local content policies

1. Local content definition

In the context of the extractives sector the World Bank’s oil, gas and mining unit defines local content as “the share of employment—or of sales to the sector—locally supplied at each stage of the supply chain.”
While being coined “local” content, policies in this context usually refer to increases of national participation in the supply chain rather than focusing on subnational or municipal level. That’s why they are sometimes also named national content policies.

2. WTO requirements and national constraints on policymaking

As the majority of resource-rich countries are World Trade Organisation (WTO) members they are bound by certain requirements in their domestic policymaking. WTO agreements on Trade-Related Investment Measures (TRIMs) generally prohibit any quantitative restrictions requiring companies/investor/enterprises to purchase or use products or services of domestic origin. The prohibition is covered by the National Treatment Obligation (NTO) clause. However, 34 WTO members are also considered as “Least Developed Countries” (LDCs), allowing them to deviate from the NTO clause for a defined period of time on the grounds of their “individual development, financial or trade needs, or their administrative and institutional capabilities”.

For these countries, reaching their Local Content objectives may be more constrained by a small or weak industrial base and the lack of a skilled workforce than by WTO rules. These limitations can lead to a mismatch between the requirements of international companies and the capabilities of local suppliers. LDCs may also have limited capacity for introducing, implementing and regulating legislation.

Comparatively low bargaining power or access to good practices needed to make informed policy decisions and negotiate with companies can also play a role. As a result, most of the core technical machinery and highly skilled technical services required by the extractives sector’s global supply chains are often sourced abroad through imports or expatriate labour.

**Common constraints to maximising local content policy in the extractive industries**

- Lack of knowledge, experience and industry background (for example, with scope of work, tendering process, contract liabilities) to adequately provide the required goods and services. A lack of such knowledge and experience could present substantial risks to oil and gas and mining companies. This is especially true at the higher
technical levels of services (core technical services) required by the sector.

- Insufficient scale to provide a range of services or the availability of goods. Often, companies prefer to have a few service providers for a broad range of related services as this is economically more efficient and requires less time to manage contracts. When there are not many adequately sized suppliers in country, it is more difficult for local suppliers to successfully participate in procurement processes.

- Inadequate financial capacity to provide goods and services on the scale and contract terms required. Financial capacity constraints range from the ability to pre-finance the required volumes to be supplied to providing sufficient bank guarantee/contract performance bonds (it could be up to 10% of the contract value for instance).

- Whether there are enough companies in country linked with the extractive industries supply chain, with the requisite education and skills set in their workforces to perform the jobs.

- Inadequate management skills and quality assurance in local firms to meet international standards.

- Lack of goods and services at the levels of quality and sophistication required by international and national oil, gas and mining corporations.

**Special and differential treatment (SDT) for developing countries**

In addition to the temporary exemption from TRIMS for LDCs, the WTO’s rules for Special and Differential Treatment (SDT) allow developing countries other than LDCs (for example, lower and upper middle income countries, self-proclaimed) to introduce some Local Content policies in order to develop local industries in specific sectors. For example, nascent industries often do not have the economies of scale of competitors from other countries, and need to be protected until they can attain similar economies of scale.

**3. Risks of local content legislation**

Local content requirements are common across the extractives sectors, but can present major risks if not well crafted to balance domestic political and economic concerns with competitiveness needed to attract and keep investors.
Risk factors include:

- National capacity is not brought up to speed in time to support demand from both national content legislation and extractives companies.
- The capacity of government agencies to monitor local content policy and regulations is not adequate.
- Regulations are not carefully drafted in consultation with a broad range of stakeholders or are not sufficiently understood by those responsible for implementing them.
- Delays postponing the receipt of government tax revenues.
- Low labour productivity becomes “locked in” as a way of doing business, which may not impact domestic business but will impact international competitiveness.
- Capital investments may not materialise; companies firms tend to be cautious about local content.
- Domestic "infant" industries never reach the competitiveness level of foreign competitors
- Local content criteria are enshrined in the law but disconnected from the current reality.
- Local content policies are often hard to withdraw even though they are meant to be temporary provisions.
- Local content laws may provide opportunities for corruption if not effectively monitored.

4. Country cases in the oil and gas industry

Ghana made its local content law more effective by revising it to include gradual targets to go into effect over 10 years instead of a single target to be achieved by the 10-year mark.

In Brazil the 1997 petroleum local content law which incrementally augmented the local content proportions in subsequent bidding rounds for oil extraction projects has substantially improved the domestic supplier industry in the petroleum sector and is often considered an example of global best practice. However, more recently the extraction of deep offshore resources was increasingly difficult to be meet under the current law
leading to delays and fines for oil and gas companies operating in Brazil. The government is therefore now seeking to ease the requirements for the next bidding round.

5. Country cases in the mining industry

Like Ghana and Brazil in petroleum, South Africa has also achieved success in the mining sector by offering flexibility. In late 2010, the South African Government introduced the Broad Based Socio-Economic Empowerment Charter for the South African Mining Industry (hereafter referred to as the “Revised Mining Charter”). This, among other things, promotes beneficiation within South Africa by allowing international and South African mining companies to apply the value of their in-country beneficiation activities towards up to 11 percent of their Historically Disadvantaged South Africans (HDSA) ownership requirements.

Since then, more HDASAs are employed in the sector and national businesses have grown. In June 2011, the South African government introduced the “Beneficiation Strategy for the Minerals Industry of South Africa”, to expand beneficiation and develop six priority value chains: iron and steel, energy, auto catalytic converters, jewellery, diesel filters, pigment and titanium metal production.

On the other hand, there is still room for improvement as indicated by the 2012 strikes and violent protests. In response to mounting accusations that mining is not providing as many benefits as expected, the ruling party has debated an increase in government’s share of the revenue and even the possibility of nationalisation.

These discussions have only added to South Africa’s regulatory uncertainty, which, combined with its persistent infrastructure problems, aggressive unions and declining skills sets, are reducing the appeal of South Africa as an investment destination. According to the 2016 Annual Survey of Mining Companies, South Africa has fallen out of the top-ten mining investment destinations on the continent and dropped to 66th out of 109 destinations globally.

Since the early 2000s Chile has also been focusing on increasing their local content in the mining industry. Despite having no formal regulation or policy on local content requirements the government works together with national and international mining companies to increase the competitiveness of their local suppliers. The World Class Supplier program, a collaboration between
BHP Billiton, the Chilean public mining company Codelco and the Chilean
governments has so far led to the establishment of 65 Chilean world class
suppliers (2015) and it is planned to establish up to 250 world class
suppliers by 2035.

6. Mining supply chain at a glance: seeking opportunities for intervention

The supply chains for the oil, gas and mining sectors are best understood by
looking at the project lifecycle. The project life cycles for each sector divide
into core technical and non-technical activities. In turn, these activities are
sources of employment and require delivery of goods and services, as well
as being subject to local content strategies and representing areas for policy
intervention.

Each stage of a mining project presents distinct opportunities for a country
to involve its own businesses and citizens. These stages are now set out
below separately for mining, and, oil and gas.

1. Resource assessment and exploration

In mining, the lifecycle begins with resource assessment and exploration
activities to identify and assess mineral deposits, their quantity and quality,
and their geographical occurrence, and then determine the most appropriate
mining and processing methods. During this phase, there is utilization of
gеophysical and geological mapping services. The assessment and
exploration phase could be anywhere from five to fifteen years. This phase
involves highly specialised services that often not or only limitedly available
in the host country which reduces the local content potential at this stage.

2. Feasibility studies

Next, feasibility studies outline the technical, legal and economic variables
to determine the likelihood of a successful outcome. These include
assessments of the mineral reserves and expected investment returns.

3. Planning and construction

The planning and construction phase sometimes begins while feasibility
studies are being concluded. It involves detailed preparation for the mining
activities. Often, the technical processes required to extract the mineral
deposits are planned in detail while site infrastructure needs, schedules for construction and commissioning of facilities, and all planning associated with environmental aspects of operations are completed. Most importantly, during this phase, construction of the mine workings both on the surface and underground is completed. Sometimes, exploration companies will acquire small mineral quantities during construction to further test technical handling and processing facilities that may be required. Collectively, these phases take anywhere from three to seven years. While the feasibility study and the environmental assessments involve specialist services that are often limitedly available in the host country, the construction of the mining facilities provide large potential for indirect services (for example, construction, electricity, logistics) that can be supplied through local firms with local staff firms.

4. Commencement of mining operations

With construction completed, mining operations can begin. Depending on the size of the project, mining operations can last for many years or just a few. There may also be periods of inactivity during the life of the mine due to changing market conditions, such as the market price of the mineral being mined, and this can affect the life of a mine. The extraction/operation phase provides larger opportunities for local content, as there is higher demand for less specialised labour and for a range of support services (for example, provision of safety equipment, see graph).

5. Closure and decommissioning

Once it is no longer profitable to recover the minerals that remain or the minerals are completely exhausted, mines will be closed or decommissioned. Most of the work related in this phase aims to stabilise disturbed lands, ensure safety of wildlife and the general environment of the mine site.

The following diagrams summarise the related goods and services required for each phase in the mining project lifecycle.
7. Oil and gas supply chain at a glance: seeking opportunities for intervention
1. Exploration

In an oil and gas project, the lifecycle begins with the exploration phase. As in mining, exploration in oil and gas involves conducting geophysical surveys, in this case to identify formations likely to contain oil and gas. This phase also includes drilling exploration wells in prospective areas in hopes of encountering significant quantities of oil and gas, which are then called “discoveries”. Exploration drilling is also good for understanding sub-surface geology and providing further data on prospectivity of an area. The process of exploration can take anywhere from three to five years. The potential for local content is usually low at this stage (especially when oil or gas is discovered in new areas) as the exploration of oil and gas is a highly specialised and technically complex process. There will be some demand for unskilled services and for basic construction but these will be small scale during this first stage.

2. Appraisal

The appraisal stage begins after discoveries are confirmed and signals the start of providing more certainty as to the quantities and qualities of hydrocarbon discovery fields. Along with establishing the size of an oilfield and the most appropriate production methods, appraisal data assists exploration companies in determining whether a field is commercially viable. The appraisal stage may take a number of years; the expected duration from exploration drilling to development is between four and ten years.

3. Development

The development phase is analogous to planning and construction for mining and could last between one and seven years.

4. Production

Once the development is on stream, the production phase commences and activities will gradually increase until they reach their peak. Peak production will typically be maintained for a number of years before production starts to decline, though governments will usually seek to balance resource exploitation and the need to fund development activities. Because resource extraction can be optimised to take into account other priorities the life of an oilfield can be extended significantly by adjusting production rates. Both at the appraisal stage and development stage the local content potential is
still very limited because they are small in scale and the search for oil can still prove financially unviable, which means that any local content created here can be short lived.

In the production phase the scale of operations increases substantially and inputs will be required for longer periods of time. Furthermore, less specialised skills and inputs are required in the production, which creates additional potential for local suppliers. However, once the major production structures are in place and the extraction starts, the requirements for further inputs declines.

5. Decommissioning

Finally, Oilfields will usually be decommissioned or abandoned when resources are depleted or cannot be profitably recovered.

Opportunities for local content in downstream activities

Transportation and storage of oil and gas usually generate large demands for local construction. The construction of pipelines and storage facilities necessitates large numbers of temporary workers.

The refining stage is again a very capital-intensive and highly specialised stage in the supply chain with low demand for local inputs. However, the subsequent primary distribution of refined products requires less specialised capital and offers many jobs with lower skills levels, creating opportunities to increase the local content in the sector.

The following diagrams summarise the related goods and services required for each phase in the oil and gas project lifecycle.
<table>
<thead>
<tr>
<th>Subsea Equipment</th>
<th>Wellheads, Sub-surface Safety Valves, Compressors, Meters, Separators, Risers, Umbilicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downhole Equipment</td>
<td>Casing Hardware, Completion Equipment, Drilling Tools, Wireline Logging Tools, Perforating Systems</td>
</tr>
<tr>
<td>Tubular Goods</td>
<td>Drill Pipe, Casing, Tubing, Manifolds</td>
</tr>
<tr>
<td>Rigs, Platforms &amp; FPSOs</td>
<td>Land Rigs, Offshore Fabrication, Vessel Conversions, Rig Equipment, Unit Manufacturing</td>
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<tr>
<td>Steel Structures, Production Topsides</td>
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<tr>
<td>Rotating Equipment</td>
<td>Compressors, Blowers, Turbines &amp; Pumps</td>
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<tr>
<td>Static Equipment</td>
<td>Surface Equipment, Columns &amp; Exchangers, Transport Pipes, Tanks</td>
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<tr>
<td>Pipes, Valves &amp; Fittings</td>
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<tr>
<td>Electrical Equipment</td>
<td>Transformers &amp; Switchboards, Drive Motors, Cables</td>
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<tr>
<td>Instrumentation &amp; Control</td>
<td>Sub-surface Sensors, Surface Production Monitoring (e.g., separators, multi-phase flowmeters)</td>
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<tr>
<td>Control Systems &amp; Valves, Instruments &amp; Analyzers</td>
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<tr>
<td>Fluids &amp; Chemicals</td>
<td>Drilling &amp; Completion Fluids, Upstream Specialty Chemicals</td>
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<tr>
<td>Catalysts &amp; Additives</td>
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<tr>
<td>Other Materials</td>
<td>Corrosion Protection, Insulation, Coating &amp; Painting</td>
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</tbody>
</table>

Figure 5: Oil and Gas Project Lifecycle and Related Goods
8. Local content and procurement processes

In the extractives sector, supply chain procurement processes entail several entry points for national suppliers. Each oil, gas, and mining company has its own process of pre-qualification, screening, selecting and awarding contracts. The figure below illustrates the typical contractor/supplier selection process, which represents the entry points for optimisation of the local content in a project.
As can be seen from figure 1, the procurement process is a relatively complex yet very structured process. For the extractives sector, the main focus of procurement is the right quality, price, delivery schedule and, more recently, the right location for sourcing. Indeed, most procurement managers prefer to source goods or contract services close to their operations. This can offer management more flexibility than contracting with companies from abroad, which can add delivery delays, incur additional costs for transport/logistics, administration, customs, and even increase project uncertainty. One of the key stages for introducing local content requirements is in the invitation to tender formulation. When the targets are adapted to the local context and reachable for domestic suppliers, tender requirements can lead to a substantial growth of the local supplier industries as seen in the case of Brazil.

Companies consider several criteria in awarding contracts to suppliers. Some can be perceived as barriers to entering the supply chain of oil and gas and mining projects. In fact, given the often rigid procedures in procurement of goods and services, selection criteria used to guarantee the quality level and delivery schedules may sometimes be too stringent and deter participation of local suppliers. Furthermore, if these criteria do not take into account the national business context, it can prevent exploration and production companies from optimising local sourcing of goods and services.

The procurement process thus remains crucial when seeking to address issues in local sourcing and utilisation of goods and services.
9. Road map to develop local content

The following points offer practical steps that could be undertaken to design and integrate a local content policy and framework.

**Step 1: Engage the private sector**
- Invite major investors to local content assessment workshop
- Establish ways of working and information exchange with investors and SMEs

**Step 2: Enhance the local content policy**
- Consult domestic and international extractives companies on existing policy
- Assess need for legislative and regulatory requirements to ensure compliance
- Revise legislation, regulations as required
- Establish monitoring and evaluation reporting requirements (e.g. employment and training plan, local participation plan, etc.)

**Step 3: Measures to promote policy and project implementation**
- Assess and revise institutional arrangements as needed
- Introduce a risk analysis framework
- Agree sector priorities and phases to implementation
- Enhance local content assessment and/or demand and supply gap analysis approach
- Produce an annual local content assessment report

**Step 4: Improve information provision from all stakeholders**
- Require significantly increased local content information from companies
- Establish web-based information system of local suppliers

**Step 5: Resolve market distortions**
• Review taxation arrangements
• Review production cost differentials

Step 6: Funding for local content support

• Identify, assess and engage sustainable national funding sources
• Assess and engage donor partner funding

Step 7: Enhance the capacity of local companies

• Promote trade associations, chamber of commerce etc.
• Design and deliver comprehensive capacity building programme, including technical training, investment financing, contracting strategies, procurement & proposals, international secondments, incubators, etc.
• Conduct supply chain mapping analysis
• Establish business opportunities & information exchange

Step 8: Enhance the education system

• Measure education levels
• Assess skills gaps in curricula compared to extractive industries requirements/standards
• Enhance the vocational training programmes and curricula as needed
• Develop vocational and apprenticeship offerings, enterprise based training accreditation