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Local Content Policies In Minerals-Exporting Countries: The Case of Brazil

Introduction

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

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

General economic context

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

Despite a short-lived recovery following the financial crisis in 2009, Brazil's GDP growth declined in 2012, bringing to light unaddressed structural challenges such as its weak productivity performance, large infrastructure deficits, regulatory challenges and corruption scandals which had plagued the economy for decades but which had been temporarily masked by the commodity boom (McKinsey, 2014).[1] [2]

The recovery of the Brazilian economy will be conditional upon its ability to address key challenges. Among these is the external risk for the economy that results from low commodity prices, in particular oil and iron ore prices. Internally, it will have to overcome the setback from a recent scandal involving its national oil company, Petrobras, and several of the country's leading construction firms. Furthermore, a major priority is to reverse the infrastructure deficit and business climate that has been pushing up transport, port and logistics costs.[3]

The mining sector in Brazil

Brazil has the world's 6th largest mining industry, producing and exporting about 80 mineral commodities, and ranks high in mineral production and reserves at the global level. In 2012, it was the world largest producer of niobium, with 98% of global production, 2nd largest producer of iron

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

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

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

ore manganese and tantalite, with 17%, 20% and 28% of global production respectively, and 3rd largest producer of bauxite, with 14% of global production.

The mining sector is dominated by iron ore,[4] which accounted for 90% of metal ore production in 2012, followed by copper with 4.7%, aluminium with 2.7%, nickel with 1% and gold with 0.7% of ore production (UNCSD, 2015).

Brazil has the particularity that its main mining firm, Vale, is Brazilian and represents 80% of total Brazilian production of iron ore market.[5]

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

The mining sector is a relatively small employer at the national level. In 2010, total direct formal employment in the mining sector was estimated at less than 1% of the occupied labour force in Brazil. However, at the sub-national level, the mining sector plays a more significant role. Opportunities vary according to the level of project development in the mining cycle. In the region of Para, for example, during the construction phase, the sector generated up to 20% of jobs. A study shows that the multiplier effect of job creation is 1:13 in the mining sector. [6] This implies that for every job created in the mining sector another 13 jobs were generated along the supply chain. However, the labour market is considered quite rigid in Brazil, with stringent labour laws and regulations and strong labour unions.

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

LCPs today: legal frameworks and practical applications

Policy objectives

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

In 2011, in an effort to boost its manufacturing sector, the Government of Brazil outlined an Industrial Plan for "Bigger Brazil", where the objective is to promote domestic industries[7] and improve the latter's competitiveness providing a fiscal stimulus package in the form of tax incentives for specific sectors and low-cost lending facilities offered by Brazil's National Development Bank, BNDES. Although the mining sector is not among the 15 priority sectors identified, capital goods and electrical materials, key inputs into the sector, feature prominently.[8] Many of the fiscal benefits granted within the Bigger Brazil plan have expired or are due to expire in 2017.

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

[5] The remaining 20% is produced by CSN, Anglo American, MMX and Samarco.

[6] Study conducted by the Ministry of Mines and Energy's Secretariat for Geology, Mining and Mineral Processing. Source IBRAM, 2012.

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

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

Regulatory frameworks

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

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

a) Decree Law No. 227, of 28th February 1967 (commonly known as the Mining Code); and

b) Decree No. 62.934 of 2nd July 1968, which has been amended over the years.

According to the Mining Code, mineral resources can only be explored or exploited under authorisation or concession by Brazilian citizens or by foreign firms incorporated under the Brazilian laws and having their headquarters and management in Brazil.[9] [10] Concessions are valid up to the depletion of the deposit.[11]

Investment regime applicable to foreign extractive firms

Brazil does not have a specific investment regime applicable to the mining sector. Foreign investments are regulated by the Brazilian Central Bank and are covered by laws and regulations applicable to any other type of foreign investment. Similarly Brazil does not have any international mining contracts. Equal treatment is granted to firms, irrespective of the origin and of the control of the corporate equity, with respect to the access to exploitation and to the use of the Brazilian sub-soil assets. The only exceptions apply to foreign firms engaged in mining activities in "border zones"[12] and inside Indian protection areas.[13] In these areas, mining activities must be conducted by firms that are controlled by Brazilians, that is, with national capital representing at least 51% of the total capital stock of such firms.

Fiscal and financial incentives

As outlined above, the "Bigger Brazil" plan allows tax incentives on production factors in order to increase competitiveness, technological innovation and development of strategic sectors, some of which are key to the mining sector. In addition, through its Development Bank BNDES, Brazil has defined an investment maintenance programme to provide loans at lower rates[14] to reduce the cost of financing, in particular for industrial purchases of machinery and equipment. The plan is aimed at promoting technological development, with a particular focus on knowledge and engineering-intensive sectors. To advance this objective, the BNDES also provides loans for investments that promote technological and production capacity for products not currently manufactured in Brazil.

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

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

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

[12] An area extending 150 km parallel to the terrestrial division line of the national territory.

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

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

Labour requirements application to the mining sector

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

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

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

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

Requirements to hire local suppliers or contractors

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

Specific employment requirements are found in some regions in the form of "*condicionantes*". These are social obligations that firms have to respect in order to obtain their license. For instance, the license requirement for the ferronickel project in the area of Onça Puma had a quota-related LCP, of 70% "local employees" in first two years and 100% within seven years. It appears that the mining firm has been able to meet the targets although it has reported that the monitoring of these targets is quite challenging. Since there is no clear definition of "local", from a purely administrative perspective, it would suffice for any Brazilian to move to that particular location to be considered as "local", which defies the rationale of the "*condicionantes*".

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

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

In Brazil, the equipment supply market is more mature than the services supply market. Although still widely regarded as an emerging market, Brazil has relatively high levels of technical standards with regards to the manufacturing and supply of equipment. A number of large international firms and agents established themselves in Brazil decades ago to supply inputs to the mining industry.[15]

[15] These include Volvo, Komatsu and Caterpillar; Tracbel and Sotreq.

Table 1. Summary of LCPs applicable in Brazil

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

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

Key private-led initiatives in Brazil

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

a) *REDES* initiative in the region of Para, is managed by a business association (FIEPA) funded by 15 firms operating in diverse sectors such as mining, energy and agri-business. The initiative focuses on SMEs and provides a demand-supply diagnosis, shares information about existing potential and supports the capacity development of potential suppliers. It also provides a range of incentives and facilitates access to Vale's contracts for local firms.[1] It is estimated that the number of firms supplying the mining sector as a result of this initiative increased more than 7-fold, from 216 in 2004 to 1 640 in 2010, despite the fact that suppliers in rural areas have been held back due to constraints related to capital, technical/managerial and high transaction costs due to poor infrastructure.

b) *Inove* Initiative, set up in 2008, aimed at (i) capacity building and technical training to bridge the skills gap of suppliers and employees, (ii) business development, by promoting interaction between different suppliers along the production chain and providing "preferential" procurement conditions on certain items; and (iii) competitiveness, by providing financial solutions and business incentives to suppliers. The partnership is implemented with a number of strategic stakeholders, namely Sebrae (the Brazilian service to support micro and small businesses); professional associations such as trade associations; national education institutes; financial agencies and local government and authorities. In April 2015, Vale estimated that more than 90% of its purchases were from local Brazilian suppliers and that local content increased in its main Brazilian operations from 54% in 2012 to 63% in 2014.[3]

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

In 2011, **AngloGold Ashanti** created a Supplier Training Programme[4] in partnership with Sebrae and the Economic and Social Development Agency of Sabará to assess individual management capacity and identify businesses' strengths and opportunities in a number of sectors such as construction, mechanical, electronics, earthworks, machining, transportation and information technology, with a view to offer training to address the gaps.

Notes:

1. Notably by encouraging firms such as Vale to agree framework contracts with construction service providers (ICMM, 2013, p. 45).

2. The objective is to "*contribute to the sustainable development of suppliers and to build a positive legacy in the regions where Vale operates*".

3. Similarly, it reported to have trained 820 engineers and geologists and 11 700 students from 2008 to 2013. In addition, it reported to have provided some USD115 million in credit lines to suppliers and more than USD 186 million in transactions of materials and supplier kit services between 2008 and 2011. Source: Vale's programme for meeting the skills gap, April 2015.

4. Source: http://www.anglogoldashanti.com/en/Media/Our-Stories/Pages/Procurement-programme-in-Brazil.aspx.

Main properties

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

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

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

There is no monitoring mechanism in place in Brazil to assess to what extent certain types of policies have worked better than others and therefore it is difficult to conclude on the effectiveness of different approaches. However, many mining firms report on the impact of their suppliers' initiatives

on the community in which they operate. A recent study revealed that in Southeast Para, one of the main regions in which Vale operates, the firm procured 75% of its inputs from Brazilian sources including 22% from the region, which is significant compared to many other developing economies (ICMM, 2013). Vale itself indicates that its local procurement has increased substantially since its suppliers' development programmes were implemented.

More Information

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