Energy, Environment and Resources Department
Meeting Summary

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New Petroleum Producers Discussion Group: Local Content Policy Implementation

Beirut, Lebanon

21–23 May 2018

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Introduction

The New Producers Group organized a workshop in Beirut on 21–22 May 2018 on local content policy design and implementation in collaboration with the Lebanese Petroleum Administration (LPA) and the Norwegian Oil for Development programme. The workshop brought to Lebanon petroleum authorities, energy ministries and national oil companies from Uganda, Ghana, Guyana, Somalia, Namibia and Oman. It also included representatives from the LPA, the Lebanese ministries of energy, labour, foreign affairs, industry, education, finance, agriculture, environment, and economy and trade, as well as the non-governmental group Lebanese Oil and Gas Initiative.

The workshop was held just a few months after Lebanon signed its first petroleum licences, which include a work commitment for the consortium led by Total S.A. to drill in two blocks over the next two years. There is keen interest in Lebanon in the economic opportunities this emerging sector will create. Lebanon's local content policy was naturally a focus of discussions, but the workshop was equally concerned with exploring a diverse range of international experiences.

The workshop objectives were to examine which models for local content policy design were most appropriate in various national circumstances – notably depending on the stage of development of the petroleum sector and national economic circumstances. But good policy design is not sufficient to ensure investments from the petroleum sector are retained in-country – ongoing stakeholder engagement, monitoring of results and policy review are critical, too, and our discussions tackled implementation challenges as well.

Three themes were persistently raised throughout the two-day discussions: clarity, visibility and rigidity.

- Indeed, to craft a sound local content policy, a government needs clarity about the expected scale and nature of demand from the oil and gas sector and about the potential for the country to meet that demand. It needs to understand what specific skills, services and goods the national economy can offer. A key conclusion from the discussions was that it is a worthwhile investment to carry out an industrial baseline survey to provide that clarity – even in the exploration phase.
- The national protagonists, on their side, need visibility of what activities are set to unfold. Local suppliers need timely information on expected petroleum sector demand and on the standards and certifications required. Local banks also need visibility of the demand and supply side. Job seekers and local suppliers require an information platform, such as an e-portal to view opportunities. International oil companies (IOCs) and oilfield services companies (OSCs) also need visibility of the available supply.
- Rigidity was an unexpected theme throughout. Governments stressed that it was necessary at points to be firm with oil companies, as vague aspirational targets would not work. However, other governments preferred to engage in discussions with oil companies who were not meeting targets and convince them to change course rather than impose penalties. Indeed, against the backdrop of this discussion, the Lebanese asked whether it should keep flexible targets and let market forces play or be prescriptive? Should it let private universities keep churning out graduates with poor prospects of jobs in the petroleum sector or intervene to stop them? Is it necessary to regulate extensively when the private sector is so vibrant?

It was apparent from the discussion that rigidity and a target-based model would not be successful if it were not based on a clear view of the available supply. Without a detailed study of expected demand and available supply, the targets for localization would not be based on real prospects for national supply. A target-based model and a rigid system also would require good communication of targets, available demand and supply (visibility) to support implementation.

Clarity

Our discussions were structured to focus first on local content policy design and second on implementation. As discussed above, the need to base local content policies on a detailed survey of expected petroleum sector demand and available national supply of goods and services emerged as a point of consensus. The cost of such a baseline survey can be around$300,000 for an emerging oil and gas producer – and can reach higher multiples for more complex economies and petroleum sectors.[1] An independent survey may be commissioned by the oil company operator, in which case it becomes a cost recoverable item, or commissioned by the government directly. While it was suggested that such expenditure might be difficult to justify in a developing country with pressing budgetary priorities, government agencies that had benefited from such surveys emphasized that it was money well spent and brought ample rewards. In the case of Uganda, for instance, the timely development of an industrial baseline survey allowed the country to retain 26–27 per cent of the value of the $3.5 billion invested by the petroleum sector, in 2006–14, during the exploration and appraisal phases. The study took eight months to carry out and its results helped Uganda gain a better understanding of the sector and demonstrated that it would not be a mass employer. It allowed the country to target specific sub-sectors for value addition and effectively underpinned its local content policy.

Would such a study only apply to countries post-discovery? The cost of the survey is small in relation to other cost recoverable items in an active exploration basin. However, in frontier countries where exploration has not been de-risked, oil companies may be reluctant to invest in such a survey, as the prospects for cost recovery are uncertain. In such cases, a survey could be undertaken at a lower level of granularity and cost, with a view to proceeding to a more detailed analysis if exploration is successful. The cost may also be shared between the operators, government and development banks.

If the first step of a developing a fit-for-purpose local content policy is to collect information on demand and supply, the second step is to develop a strategy outlining priority areas for having national supply meet oil and gas company demand. The strategy should be underpinned by a clear vision of the drivers of the economy and how intertwined the petroleum sector should be with the rest of the economy. Next, government should develop a policy to guide the expectations and behaviour of oil companies. It should enable national human and business capacity-building and establish regulatory, monitoring, reporting and oversight frameworks to ensure implementation.[2]

An important element in the process is to categorize and assign codes for the country's goods and services. With standardized codes for equipment, materials, services and job types, countries can measure what supply is available and chart the progress of supply development. Governments can obtain more visibility on the project's expected demand through the operator's strategies and procurement plans. These start to be developed at the pre-FEED stage already, potentially providing valuable information to national planners and local suppliers in time for them to build up capacity before demand materializes. In production sharing agreements, governments typically own much of the data, though there may be limitations related to confidentiality clauses in contracts or regulations. Oil companies may be reluctant to

[1] This was the approximate cost of the industrial baseline survey in Uganda commissioned by Total, Tullow Oil and CNOOC from Schlumberger Business Consulting following oil discoveries.
[2] Anthony E. Paul (2014), 'Maximizing National Value - Ownership, National Participation, Local Content and Sustainable Development', in T. M. Boopsingh and G. McGuire (eds) (2014), *From Oil to Gas and Beyond - A review of the Trinidad and Tobago Model and Analysis of Future Challenges*, University Press of America.

provide this information in detail but might accept to share it aggregated – especially where there is a relationship based on regular exchange and trust with the government.

Visibility

Indeed, access to information is a key enabler of local content policy implementation. The authority charged with local content policy will need the cooperation of various ministries to obtain national economic data and information on available skills, for instance. But more fundamentally, the authority for local content will need a clear view of the national vision. What supply approach should the country invest in?

Supply includes both products (goods) and services. When it comes to products designed for the oil and gas sector, it is important to set this potential benefit in context: some models suggest it is unlikely that the skills and processes honed in the manufacturing of products for the petroleum sector allow countries to manufacture products outside the oil and gas sector. This was the conclusion of the 'product space' model developed at the Harvard Center for International Development. In effect, the oil and gas sector stands apart (and foreign) from manufacturing in high-value sectors, such as electronics, and countries that are concentrated on the extractives sectors often struggle to diversify because of a lack of transferable 'know-how'.[3] What this means for Lebanon, which is well positioned in the product space, is that the country should protect and build on its diversity. As a presenter noted, greater benefit can be drawn from investing the revenues generated from the oil and gas sector in manufacturing products outside the petroleum sector, rather than in seeking to supply products to the sector.

Services in the petroleum sector feel less 'foreign' to the country. There is potential for petroleum services to be transferred to other industries in the areas such as engineering, fabrication and construction, operations and maintenance support (mechanical, electrical, instrumentation, quality assurance and inspections, technical integrity), logistics (port facilities, boats, barges, diving, helicopters), and consulting, professional services and business office support.[4]

But local companies require support to interact with a sector that has very high standards in operational reliability and Health, Safety, Security and Environment. Even in Ghana, a middle-income country, local companies are often small with weak management systems and have struggled to finance and oversee the training of employees to meet necessary industry standards and obtain certifications – as well as their own operational certification. To increase their chances of participation in the petroleum sector companies require early information on tendering processes and better access to finance.

In view of increasing national stakeholders' visibility of the demands of oil and gas projects, discussions focused on how the local content authority should communicate and engage with training institutions, banks, chambers of commerce and the public at large. A key question raised by governments was whether it should intervene more forcefully to direct the private sector, the banking sector, and the educational sector's respective strategies with regards to the petroleum sector.

Private sector and banking:

In Lebanon, the private sector is well established and responsive to opportunities. It essentially requires timely information on the scale, timing and form (e.g., certifications, standards) of expected demand for

[3] Ricardo Hausmann, Cesar A. Hidalgo, et al. (2011), *The Atlas of Economic Complexity*, Puritan Press
[4] Anthony (2014), 'Maximizing National Value - Ownership, National Participation, Local Content and Sustainable Development'.

goods and services. As for the banking sector, it is conservative in response to high public debt. It will need to be encouraged to make more funding available to the private sector.

In Ghana, too, financial institutions perceive the oil and gas industry as high risk and impose high interest rates on loans, coupled with unfavourable repayment terms. Some of the solutions identified by the Petroleum Commission are to provide fiscal incentives to reduce costs, establish a local content fund, draft guidelines for the financial services sector and encourage IOCs to agree to MOUs with local banks to support access to capital for local contractors.

Local firms find it challenging to compete with international companies in Ghana. The absence of local manufacturing units for basic inputs forces fabrication companies to import raw materials, increasing their costs. Efforts to boost local firm participation through a 10 per cent price preference have also created their own challenges. Some non-indigenous Ghanaian companies front[5] as Ghanaian companies in order to obtain the price preference offered in tenders to indigenous companies. The competition between indigenous companies for joint ventures with foreign companies leads many of them to agree to partnerships on paper – accepting shareholdings that do not reflect actual shares, total control of the foreign companies in key areas, sharing of dividends. This leads them to become rent seekers rather than fully participating as partners in the JV.

Educational sector

In Lebanon, there is particular concern for the proliferation of specialized petroleum degrees (e.g. graduate degrees in geosciences, petroleum engineering, and oil and gas business management), especially in private universities. Financial interests tend to lead these universities to train cohorts of young Lebanese for oil sector jobs that are unlikely to exist – at least in Lebanon. Knowing that the oil and gas sector (and other sectors of the economy) are more likely to require vocational skills (e.g., welders, electricians), how interventionist should government be to moderate this focus on specialist petroleum university degrees? Discussion pointed to the value of programmes to better inform both universities and students of the risks inherent in offshore exploration, the expected demand for vocational skills in the event of a discovery, and the value of developing skills that are transferable to other sectors of the economy. One participant suggested government should publicly 'shame' universities that did not adjust their programmes accordingly. There was support for rating universities by the proportion of job finders to graduates, to illustrate to students the professional potential of various degrees. Others suggested government intervene more forcefully, by allocating limited permits or imposing quotas on specialized degrees.

Public

With regards to broader engagement with the Lebanese public, the Lebanese Petroleum Administration has made substantial efforts to give citizens a better understanding of the petroleum sector in Lebanon and respond to their questions. Some possible avenues for future engagement (in the event of an offshore discovery) could include outreach to the Lebanese diaspora through partnerships with the Ministry of Foreign Affairs and through traditional and social media avenues.

In many other emerging producer countries, government communication efforts have not been deployed early enough, nor strategically directed to manage public expectations about job creation and supply contracts for the petroleum projects. The case of Guyana, where very significant discoveries have been

[5] 'Front' as defined in the Ghanaian regulations means to deceive or behave in a particular manner to conceal the fact that a company is not an indigenous Ghanaian company.

made since 2015, illustrates the critical importance of a government communication strategy. Governments need to establish regular information flows with their publics during exploration because post-discovery it is much more difficult to manage misunderstandings. However, as some participants noted, it is often difficult to justify the allocation of resources to establishing that information channel before discoveries.

Rigidity

Local content is an area of great potential alignment of interests between oil companies and host governments. After all, a local supply of skills, goods and services that meets industry standards will usually be cheaper than an imported one. But the challenge is in getting to the point where that local supply is available at the right time, to the right standards and competes with international supply in terms of cost. Would market forces bring the supply base to that point naturally? If not, what kind of government support would be required? We examined three models for designing local content policies: the incentives-based system, the rules-based system and the hybrid approach.

Incentives

The incentives-based approach uses no type of 'sticks' and relies on market-based 'carrots'. It may include the following types of incentives for companies to use domestic supply and invest in the country:

- The government offers tax incentives to invest in infrastructure or invests directly in infrastructure to attract investment. Tax-free havens have demonstrated limited benefits to host governments, which subsidize the manufacturing and exports of foreign firms that localize their businesses. It may be more valuable to provide tax-free zones or tax incentives to local firms to do the same, as has been done with the offshore servicing industry in Nigeria.
- A cost incentive for hiring or buying local – e.g. government pays a pre-determined amount to the foreign firm to source locally to make the local supply more internationally competitive. However, to the extent this system is not tied to the local supply's performance, it tends to create the wrong incentives.
- The government may offer commercial incentives – e.g. bidding criteria for major contracts include commitments to deliver in-country value (localization). For instance, Saudi Aramco provides large contracts only to consortia that include local companies. In the early 70s, Norway awarded contracts on the condition that the bidder entered into an agreement with national research institutions to drive innovation. But the industrial development approach in Norway was not entirely incentives-based and was guided by concrete targets and government intervention. Supporting the effort was the market environment of the time, which favoured the resource holder, and Norway's own non-oil resources (shipping industry and a well-educated population).

A first observation that emerged from our discussions was that the incentives-based model tends to be found in mature, developed economies and very large resource countries. The consensus among participants was that local content policies do not work with all carrots and no sticks where national supply is not yet plentiful and internationally competitive.

Discussions also pointed to some structural disincentives for localization, such as multi-national firms' affiliates transfer pricing. It is advantageous for an oil company to have its affiliates provide goods and services where the cost is recoverable. Even price and quality-competitive local supply cannot compete with the oil company's affiliates, unless there is a financial incentive sufficient to offset this advantage.

Rules

In contrast, the rules-based system constrains oil company investments in localization through targets and rules. As relates to the issue of treatment of IOC affiliates, for instance, a rules-based system might have guidelines that require affiliates to go through the same competitive process as other companies, as is the case in Uganda. Where the government does not recognize these affiliates as part of the core business and an integral part of the operator company. It requires the affiliates of China National Offshore Oil Corporation, one of its operators, which commonly provides multiple services surrounding the core operations, to go through competitive tendering.

The case of Uganda also illustrated how the rules-based model is operationalized more broadly. The Ugandan government's objective was to ensure maximum value retention in Uganda. The questions driving their process were:

- How much employment can be generated?
- How much of the goods and services space can Uganda occupy?
- How much technology transfer can the country secure?
- How can they develop a national supply base in construction and logistics?
- How much capacity-building can be done?

Uganda relied heavily on rules for their local content framework and these were supported by a robust legislative and regulatory framework. There were, however, obstacles to overcome. For one, the country had limited finance and capacity. It had trained many geologists and geophysicists but had limited understanding of the sector. Even so, Uganda undertook an industrial baseline study and carried out a scan to determine a capacity-needs assessment. The survey was commissioned by the operators, but the approach was agreed with the government, which advised on key subsectors requiring specific focus and reviewed the report before publishing and disseminating it. The government then used this information to shape national policy.

What ensued was a very focused local content policy. The government felt a bold and calculated risk was required and ring-fenced 16 categories of services that are exclusive to Ugandan companies (though some of the services, such as insurance, still require capacity enhancement to be competitive).

This policy gives preference to Ugandan companies in competitive bidding and local content makes up 10 per cent of the evaluation criteria in bids. Foreign companies are encouraged to establish joint-ventures with Ugandan companies (listed in a national supply database).[6] Services that cannot be carried out in country should include local content provisions in the sub-contracts where possible (e.g. transportation, human resources). Employment targets for nationals are provided (including 30 per cent at the management level). Interestingly, Uganda focused on skills transferability: it found existing skills and enhanced them, instead of creating fresh qualifications from scratch. There is a careful and deliberate monitoring effort made, as the regulatory authority checks quarterly procurement reports, annual procurement plans, and annual recruitment plans to inform a national compliance framework.[7]

While the more 'rigid' approach of Uganda presents many advantages, discussions pointed to the risk of the rules-heavy system slowing down development. Indeed, its success depends on making realistic

[6] A Ugandan company is defined as incorporated in Uganda.
[7] The Petroleum Authority of Uganda, tasked with regulating and monitoring the sector, has a staff of six; the Petroleum Directorate, responsible for policy and licensing, has a staff of 11.

assessments of the potential for local suppliers and skills to meet demand, which takes time. As does the development of the policy and regulatory framework that guides the behaviour of oil companies.

Mixed approach

Fellow new producer Ghana adopted a rules-based approach with some incentives (such as a price preference for local companies if a local supplier's bid price is less or equal to 10 per cent higher than the lowest bidder's price) and a more flexible and negotiated approach to compliance with targets (which increase over time). It is noteworthy that Ghana did not undertake an industrial baseline survey before setting its targets and therefore discovered over time there were large gaps between demand and available supply on some segments, making it impossible for companies to comply. In implementing its local content policy in 2014, local employment in the sector reached 65–70 per cent, though these jobs were primarily in lower-skilled positions. Nevertheless, localization in technical and management positions reached approximately 50 per cent, which is in line with targets. Positive outcomes have been achieved in the provisions of goods and services requiring lower capital and technological knowledge, amounting to over$1.3 billion worth of contracts awarded to indigenous companies between 2010 and the third quarter of2017.[8] Local companies face challenges impeding their competitiveness in the industry (e.g. finance, human capital development, technology) and tend to gravitate to the 'low hanging fruits' rather than in the development of high-value, capital and technology intensive goods and services.

The case of Oman presented an interesting contrast to the Ugandan model. Oman's highly structured system mixes rules and enablers (financial and non-financial incentives) to encourage better results. Petroleum Development Oman is a quasi-national oil company (NOC) that operates in a joint venture with Shell and benefits from very close relations to the Ministry of Oil. The political support has been an important factor for the programme's success. In 2011, granular supply side research identified 53 clear opportunities for Omanisation,[9] which were distributed among the seven operators, with PDO in the dominant role in 43 tracks. Through what they term an ecosystem approach, all companies pulled in the same direction, and benefit from open discussion around common goals. The success of the Omani in-country value programme, as any other, depends on monitoring and evaluation of actual progress against commitments made (these are tracked in a digitalized reporting dashboard). There are consequences for non-compliance, but enablers are more important in bringing about positive results.

A key feature of this model is that local content (or in-country value) is a biddable item, which creates an important incentive for companies. It also means that the costs of developing capacity in country are incorporated into the bid. This model makes it easier for oilfield service companies (OSC) to invest in localization. Unlike oil companies, OSCs cannot normally recover the costs of investments in local content development. Any investments would have to be integrated into the pricing proposed to operators and this has broadly prevented significant investments on the part of OSCs (unless regulations require all contractors to meet the same targets – a 'stick' approach).

While making local content development a biddable item incentivizes contractors to include local content plans in their bids, contractors rarely share the long-term outlook of the operators. Companies like Schlumberger will commonly work on two-year contracts. These may be repeated, giving the companies a footprint in the country over decades, but the outlook remains short-term. This is reinforced by the rotation of staff, which prevents the retention of personnel with a strong understanding of the local supply

[8] Key among these was the in-country fabrication of module stools and suction piles for the FPSOs Atta Mills and J.A. Kuffour projects. Over 2,000 tonnes of steel were fabricated in-country and shipped to Singapore for the integration of the last FPSO construction. Other in-country fabrications included mud mats, sleepers, jumpers, suction piles, riser base and manifolds.
[9] The Oman government's plan for developing Omani nationals for the job market, also known as Omanisation.

base in-country over time. The establishment of training funds, to which all companies might contribute 1 per cent of contract value for instance, can help overcome some of these challenges as a common pot of money is used to develop local capacity that all companies can employ.

Conclusion

A key conclusion of this workshop was that significant value retention in-country does not happen without some effort on the part of government. It can use firm targets to force compliance or include local content as a biddable item in licensing and procurement. No matter the approach, the local content authority will need to monitor progress, in order to refine its targets and address the causes of any persistent gaps in supply. It will also need to underpin its targets on a realistic assessment of demand for skills, goods and services and available national supply. The more granular the view of that demand and supply picture, the better for its policymakers and national stakeholders (banks, private sector companies, vocational centres and universities) that need a clear picture of what this 'foreign' industry will need.

In order to meet this challenge, governments at the table expressed a keen interest in continuing to meet and exchange, in order to learn from each other. The New Producers Group is establishing an online platform to support continued technical exchange and will continue to tackle these themes in future meetings.