

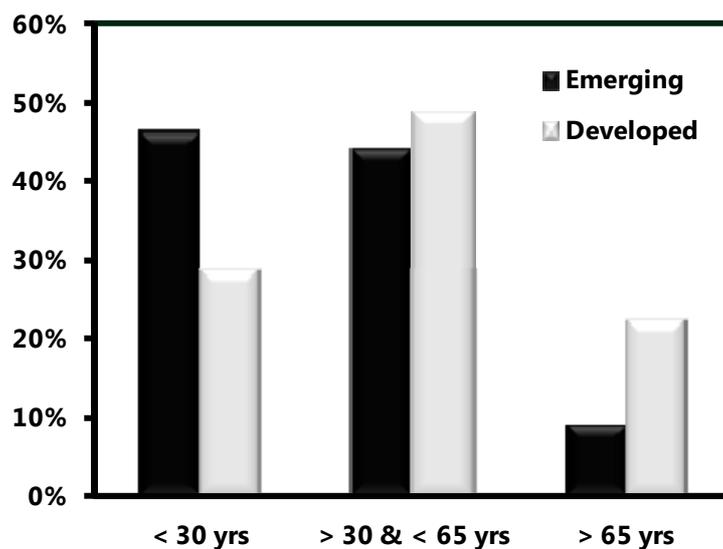
## Let us speak about Local Content

### ***An unbalanced population between developed and emerging countries***

According to the United Nations<sup>1</sup>, 83% of the 7 billion people populating the Earth are in emerging countries. When looking in greater detail at the world age pyramid, the under 30s population represents nearly half the population of emerging countries (against 29% in the developed countries) whereas 22% of the population in developed countries is aged over 65 years (against only 9% in the emerging countries). The “belly” of the pyramid (30 to 65 years) is quite similar in both cases with 44% in emerging countries against 49% in developed countries (**Figure 1**). The younger generation, which carries the future of the world economy, is definitively located in emerging countries and no longer in developed countries. Filling the HR gap therefore requires the development of a competent workforce in emerging countries in general and in Oil & Gas producing countries in particular (90% of the world oil & gas reserves are located in emerging countries<sup>2</sup>).

### ***Basics of local content***

The recognized definition of Local Content<sup>3</sup> refers to “the quantum of composite value added or created in the national economy of a host country through the utilization of indigenous human capabilities and material resources for the provision of goods and services to the Oil & Gas industry, while ensuring quality, health, safety and environment international standards”.



**Figure 1 – World population breakdown  
(2010 World Population Prospects of United Nations)**

Apart from being a demographic problem, the development of local content is also emphasized by sustainable development as contractually, IOC are required by governments to open their workforce to a large percentage of local content<sup>4</sup>. Beyond compliance, local populations wish to fully benefit from the development of their mineral resources, particularly in terms of employment. If subordinate

<sup>1</sup>2010 World Population Prospects - <http://esa.un.org/wpp/Other-Information/faq.htm>

<sup>2</sup> See introduction Figure 9

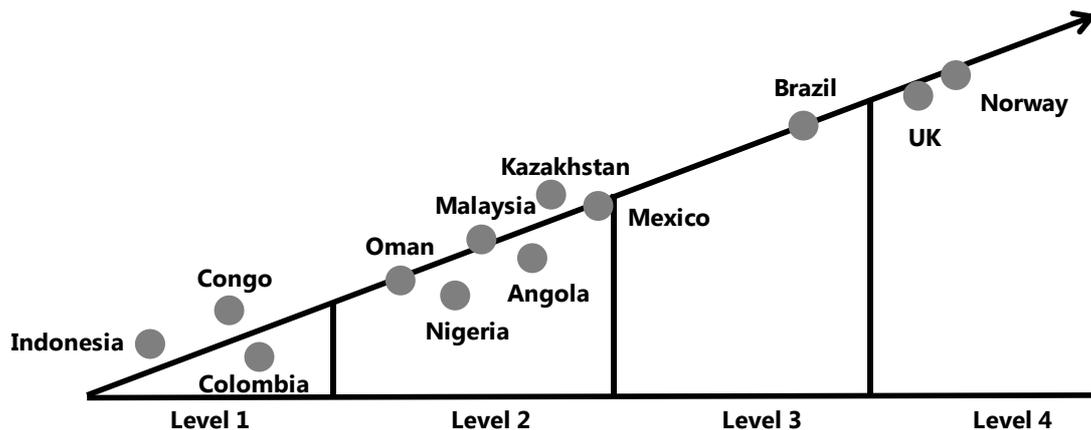
<sup>3</sup> E Emielu (2005) “A Local Content Knowledge Management System as a Strategy for Achieving Sustainable Local Content Development in the Nigerian Oil & Gas Industry” SPE 98837 - 29th Annual SPE International Technical Conference and Exhibition in Abuja, Nigeria, August 1 -3, 2005

<sup>4</sup>IPIECA 2011 “Local Content strategy. A guidance document for the Oil & Gas industry” IPIECA is the global oil and gas industry association for environmental and social issues.

positions (offshore operators, secretary, technicians and basic engineers) have been occupied by local people for many years, the opening of middle and top management positions is something new and not easy to implement. Local content focuses both on the development of local workforce (individual skills in NOC, IOC or service companies) but also on local suppliers (development of a local supply chain of goods and services). Developing a local supply chain (particularly local goods) requires advanced models that only few developing countries (China, Brazil, India) have mastered today. In broader terms, Local Content can be categorized into four levels according to the following criteria (**Figure 2**):

- ✓ Level 1: no model, isolated actions focused on workforce levered by IOC,
- ✓ Level 2: basic model, mapping performed and supply chain gaps identified,
- ✓ Level 3: model in place, strategy to fill gaps, credit for developing supply chain,
- ✓ Level 4: world-class model exporting goods & services, no more need for financial support

Reaching level four represents a long capacity building process between states and private companies designed to facilitate the local absorption of skills, technologies and industrial standards (safety, finance, ethics) from IOC which in turn can gain competitive advantages in terms of costs and reputation. More precisely, it requires playing at the same time on human resources (technical, administrative and management skills), organizational processes (internal organization, procedure, processes) and physical resources (infrastructures, computers). Capacity building requires overcoming two main hurdles<sup>5</sup>.



**Figure 2 – Classification of some countries on the Local Content scale**

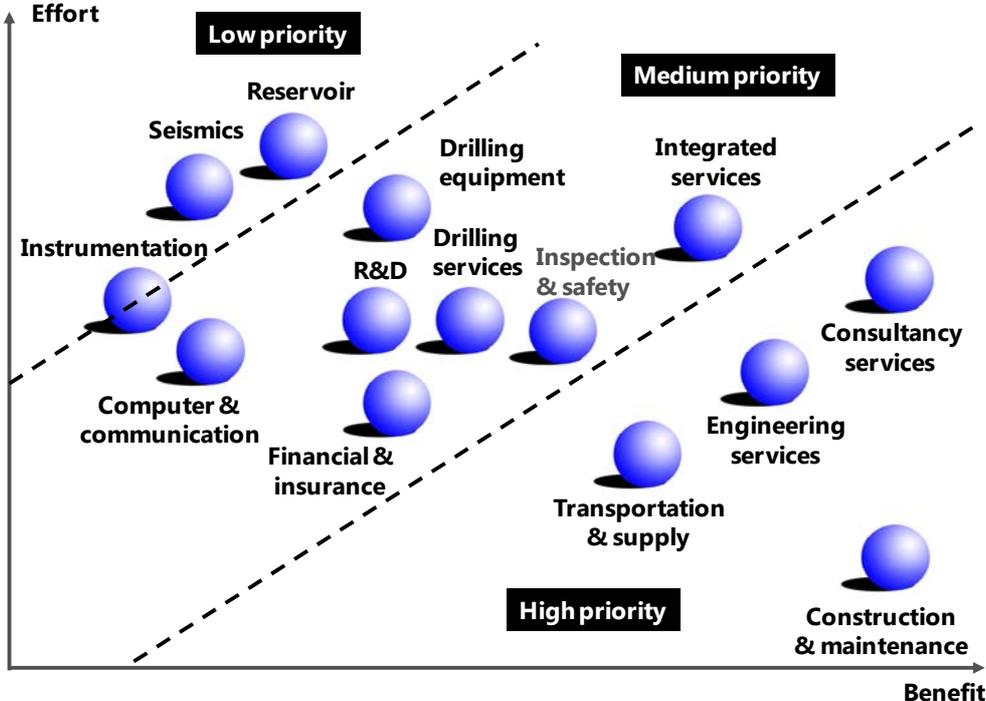
The first are **institutional and organizational hurdles** insofar as many developing countries do not have the necessary educational and research structures, starting with primary school. Weaknesses are particularly blatant in the area of STEM<sup>6</sup> where educational and research structures that are little recognized and poorly rewarded are affected by a large deficit of skills and creativity. In developing countries, scientific organizations controlled by excessive bureaucracy are generally inadequately focused in terms of research and professional orientation. Hence the difficulty to properly train powerful Oil & Gas classes and develop required skills in key areas such as geology, reservoir engineering, drilling or surface production.

The **second hurdles are habits and cultural barriers**. In particular, there is a large gap between the practices of IOC accustomed to a competitive market and a clear separation of tasks, and NOC which

<sup>5</sup> P. Garcia, H. Vredenbrug & D. Thompson (2001) "Gaining competitive advantage in the Oil & Gas industry by building capacity in educational institutions in Latin America" SPE 74101 20-22 March Kuala Lumpur Malaysia

<sup>6</sup> STEM = Sciences/Technology/Engineering/Mathematics

are always in a monopoly situation. They mainly act as concessionaire for their government but very often cumulate operational, support and service activities (drilling, logistics) normally devoted to private Service Companies. Such a mixture can generate conflicts of self-interest particularly when launching calls for tender. Apart from the fact that it is a major human scourge, widespread corruption in many Oil & Gas countries (**Figure 4**) continues to damage the quality of the local workforce and consequently jeopardize industrial performances, including safety and environment.



**Figure 3 - Example of Local Content mapping in terms of effort and benefit<sup>7</sup>**

A relevant capacity building relies on three embedded leverages: **system, entity and individual**.

Developing local content relies first on the ability of the state to build a strong education system as well as an effective and rewarding research body. The dimensions to consider are policy, legal, regulatory and transparent state funding. The entity corresponds to the formal organization of a private or of a state company. Strategic objectives, processes, human and financial resources as well as the quality of infrastructures are the main factors that structure an entity. Finally, individual addresses the capacity of people to be educated by the system and trained by the entity to function efficiently and effectively.

Like any Reputation Process, Capacity Building follows an closed loop starting by a gap analysis to highlight discrepancies between the expectations of the host countries (job creation, technology transfer), the future requirements of the project and the 'country's actual resources (education level, infrastructures, legal frame). Apart from training and association (i.e. venture between a local and an international supplier), a local content action plan (definition then implementation) also includes a prequalification process that covers a number of technical and economical but also ethics criteria. The efficiency of the action plan will be continuously assessed using a series of KPI to compare target and achievement.

<sup>7</sup> Life of Project Deviation Tracking and Management (2011). Internal report from North Caspian Operating Company operated by Accenture.

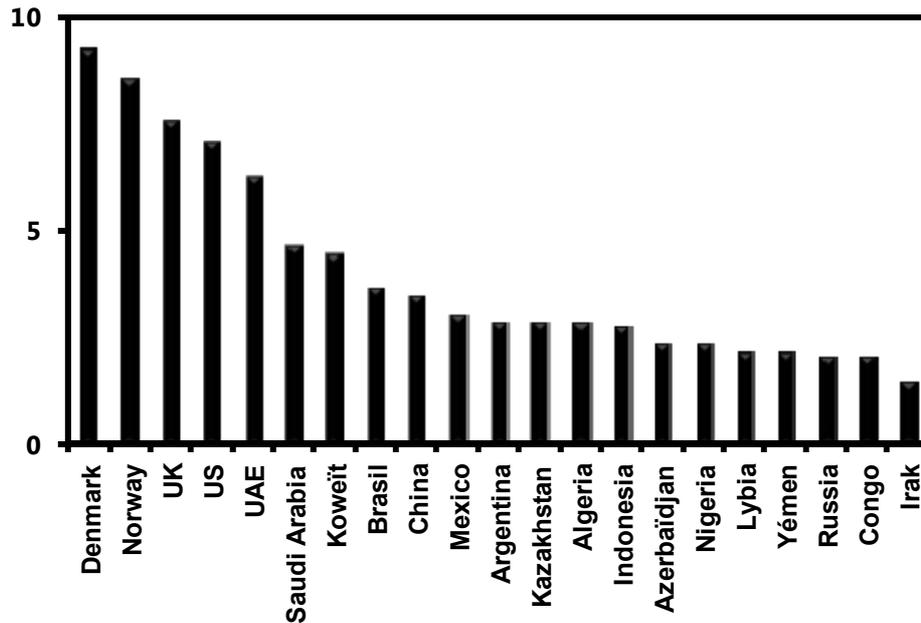


Figure 4 – Corruption index 2010 of most Oil & Gas countries<sup>8</sup>

## Examples

### ***Increasing engineering local content in Nigeria***

In 2005, the Nigerian government decided to increase the local content in Oil & Gas up to 70% by 2010 with one directive imposing that FEED and detailed engineering design of all projects to be hosted in Nigeria. A capacity survey highlighted a gap of 2,200 engineers to be filled in 4 years, a very challenging target as many complex projects were already underway or starting. To provide a positive response to this tight-deadline directive, IOC have launched various initiatives.

A first strategy was based on the creation of engineering departments equipped with both company and local staff from local engineering companies. Another strategy<sup>9</sup> consisted in subcontracting all basic and detailed engineering studies through a general “*three party contract*” involving an IOC, an IEC (International Engineering Company) and several local engineering firms. The IEC had a contractual obligation to enter into the partnership with local companies which became the vehicle for local content while assuring compliance with international standards through its Head offices. Expats launched the project and were then gradually replaced by Nigerians according to an imposed overlap plan, monitored by the % increase of local content. A 5-year contract providing the contractor with a sufficient volume of work to justify the investment was considered as a critical success factor. However, some contractors accepted 2.5 years with the assurance that an extension would be granted if sufficient local content was delivered.

### ***The local content of the Kashagan project (Kazakhstan)***

The Kashagan project is recognized as a world-wide project. In terms of local workforce, at the end of 2009, among the 4,367 people working directly for the venture, 53% were Kazak Nationals. By December 2009, at the peak of the construction phase, among the 43,500 people employed, nearly

<sup>8</sup> <http://transparency.org/> - CI is a composite index, aggregating surveys and rating agencies data. The score of 10 indicates no requests for bribes, kickbacks and the 0 systematic corruption.

<sup>9</sup> V. Boardman, O. Obembe & L. Longuet (2010) “Identifying and developing local capacity building initiatives – best practices in Education and Innovative Supplier Development” SPE 126971 Rio de Janeiro

80% were Kazak Nationals, an outstanding percentage for this type of project. The 80% ratio remained stable during the de-manning phase.

On the supplier side, a number of procedures including pre-qualification processes, dedicated training to transfer technology and enhance the quality of service were set up and a series of specialized forums, seminars and workshops specifically devoted to instilling an international contractual spirit and procurement practices were organized. As a result, from 2006 to 2011, 1,600 local companies integrated the pre-qualification vendor list, 51 Joint Ventures with international companies were created and 50 local companies were iso-certified. Between 2005 and 2012, 8G\$ of contracts were spent with local companies in Goods & Services. In 2011, local Goods & Services represented 27% of total payments<sup>10</sup>.

### ***Developing a local supply chain in Azerbaijan***

Though a "pioneer" in Oil & Gas, after the collapse of the Soviet Union, Azerbaijan suffered the disintegration of its economy especially after a devastating war with neighboring Armenia. However, in 1994, the signature of the "Contract of the Century"<sup>11</sup> with several IOCs to explore and develop new offshore fields provided the opportunity for the Azerbaijani private sector to rebuild itself. To comply with international standards and compete with international firms, local companies needed to close gaps in technology (particularly IT and HSE), business (certification, C&P) but also gaps in ethics issues such as effective governance and transparency<sup>12</sup>. Following a detailed gap analysis, a tailored program was provided by IOC to enhance competitiveness and achieve international standards. As a result, since 2007, more than 90 local companies involved in business services, operation support, engineering, construction, logistics and waste management have successively completed the program and 1G\$ of local content was achieved between 2006 and 2010.

### ***Conclusions***

Apart from the fact that it is a demographic necessity, a legal requirement and a sustainability objective, development of local content, when properly implemented, has become a strong competitive advantage for IOCs. By keeping expatriate staff to a minimum, increasing local content has a considerable influence on reducing costs, generates a smoother flow supplies of goods and services, enhances engagement with stakeholders, builds a more stable investment climate, gains access to distribution channels and in the long-term, consistently favors the renewal of the license to operate.

However, the implementation of Local Content strategy still face a number of difficulties in finding enough local people and suppliers able to meet requirements and standards in terms of technical (particularly in specialized areas such as welding or assembling pipelines), financial, HSE and organizational skills. Local scarcity of experienced local employees covering critical roles can lead to high staff turnover hence the need to implement a retention program and an initiative to create loyalty<sup>13</sup>.

Finally, beyond technology, behavior and cultural practices remain the major barriers to developing a real local content. These hurdles can only be overcome by removing people from their known environment for medium-term periods. Reaching a local content target will therefore require integrated career management which alternates local and expatriation periods. This will allow the best employees to be tested in different environments and will give them the multicultural dimension which they often lack.

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<sup>10</sup> Zh. Marabayev (2012) "Local content in the North Caspian Project. Creation of the new production facilities in western Kazakhstan" - 24-26 September, Aktau

<sup>11</sup> I. Ismayilov, S. Taghiyev, K. Shikhlinisky (2012)n "Developing the local supply chain for the contract of the century and achieving US\$ 1 billion in local content" SPE 157424 Perth Australia

<sup>12</sup> [http://www.bp.com/liveassets/bp\\_internet/bp\\_caspian/bp\\_caspian\\_en/STAGING/local\\_assets/downloads\\_pdfs/s/BP\\_Sustainability\\_Report\\_2012.pdf](http://www.bp.com/liveassets/bp_internet/bp_caspian/bp_caspian_en/STAGING/local_assets/downloads_pdfs/s/BP_Sustainability_Report_2012.pdf)

<sup>13</sup> R. Bersani, M. Stampa and S. De Scantis (2010) "The approach to sustainability and the promotion of Local Content" SPE 126531 Rio de Janeiro