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# Republic of Uganda

## Leveraging Oil and Gas Industry for the Development of a Competitive Private Sector in Uganda

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GTCDR

AFRICA



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## ABBREVIATIONS AND ACRONYMS

AP	Aquaculture Parks
BDS	Business Development Services
BNDES	Brazil National Bank for Social and Economic Development
BP	British Petroleum
CAE	Centro de Apoio Empresarial
CEDP	Competitiveness and Enterprise Development Project
CEM	Country Economic Memorandum
CNOOC	China National Offshore Oil Corporation
CPF	Central Processing Facility
CPI	Corruption Perception Index
CSR	Corporate Social Responsibility
DB	Doing Business
DFR	Department of Fishery Resources
DRC	Democratic Republic of Congo
DSIP	Development Strategy and Action Plan
EAC	East African Community
EDC	Enterprise Development Center
E&P	Exploration and Production
EPC	Engineering, Procurement and Construction
FDI	Foreign Direct Investment
FDP	Field Development Plan
FID	Final Investment Decision
FFVs	Fresh Fruits and Vegetables
FSAP	Financial Sector Assessment Program
GATT	General Agreement on Tariffs and Trade
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GNI	Gross National Income
GoU	Government of Uganda
GPA	Agreement on Government Procurement
HODFA	Hoima District Farmers Association
HODFE	Hoima District Farmers Enterprise
IBS	Industrial Baseline Survey
IEC	Industry Enhancement Center
IFC	International Finance Corporation
IOC	International Oil Company
JVP	Joint Venture Partner
LCP	Local Content Policy
LNG	Liquefied Natural Gas
MCC	Milk Collection Center
MFNP	Murchison Falls National Park
MEMD	Ministry of Energy and Mineral Development
MNC	Multinational Corporation
MOFPED	Ministry of Finance, Planning and Economic Development

MOTWA	Ministry of Tourism, Wildlife and Antiquities
MOU	Memorandum of Understanding
MSMEs	Micro, Small and Medium Enterprises
MTIC	Ministry of Trade Industry and Cooperatives
NAADS	National Agricultural Advisory Services
NDP	National Development Plan
NGO	Non-Governmental Organization
O&G	Oil and Gas
OFSE	Oil Field Services and Equipment
PDPs	Productive Development Policies
PEDP Act	Petroleum Exploration, Development and Production Act
PEPD	Petroleum Exploration and Production Department
PNP	Progressive Nationalization Plan
PPE	Protective Personal Equipment
PPP	Public Private Partnership
ROI	Return on Investment
SDT	Special and Differential Treatment
SSA	Sub-Saharan Africa
TDA	Tourism Development Area
TLO	Tourism Liaison Officer
TRIMs	Trade-Related Investment Measures
UBOS	Uganda Bureau of Standards
UIA	Uganda Investment Authority
UPIK	Uganda Petroleum Institute in Kigumba
UTB	Uganda Tourism Board
UWA	Uganda Wildlife Authority
WBG	World Bank Group
WEF	World Economic Forum
WTO	World Trade Organization

## EXECUTIVE SUMMARY

### *KEY CONSIDERATIONS FOR NATIONAL CONTENT DEVELOPMENT IN UGANDA*

- 1. Discovery of oil resources offers a unique opportunity to Uganda to leverage these resources for the development of the economy.** Oil revenues can be used to finance priority domestic investments crucial for diversified growth. But even before oil production commences and oil revenues start coming in, local private sector can participate in supplying the oil industry and start growing their business and national economy in general. In order to achieve maximum impact for the economy, policymakers in Uganda need to encourage Foreign Direct Investment (FDI) in the oil and gas (O&G) industry, provide support to improve competitiveness of domestic O&G suppliers, and ensure sustainability of national content development programs.
- 2. Uganda's economy can significantly benefit from FDI in the O&G industry.** This industry is very new for Uganda and local capacity in many sectors needed to supply the IOCs is quite low. While it might be possible to develop local capacity in some sectors to reach the level of quantity and quality required by the IOCs, it might not be feasible in others. For sectors which are too complex to develop locally in a short period of time, multinational corporations (MNCs) need to be encouraged to set up subsidiaries in Uganda. They would provide such benefits for Uganda's economy as employment, technology transfer, and sourcing of local goods and services to carry out production. For those sectors which already exist in Uganda or capacity can be easily developed, there would be more feasibility to make investments locally and/or establish joint ventures. Each individual deal would be structured depending on unique circumstances and requiring a specified percentage of local ownership is not recommended.
- 3. Considerable benefits for Uganda's economy are expected if competitive domestic firms are able to supply goods and services demanded by the O&G industry.** Ugandan suppliers, especially micro, small and medium enterprises (MSMEs), are presently facing a number of constraints, including information asymmetries, challenging business environment, inadequate infrastructure, and others. It is essential to address these constraints in a timely manner. Given that the construction phase is expected to commence in a few years, support to the private sector needs to be provided urgently to give enough time for enterprises to build capacity. Please refer to **Table 1** below for the main constraints faced by local O&G suppliers and key strategic actions to address them. The Government of Uganda (GoU), the IOCs, the local private sector and the development partners all have a role to play in addressing these constraints.
- 4. Multiple national content support initiatives are already underway.** These include, inter alia, the establishment of the Industry Enhancement Center (IEC), documentation of O&G quality standards, communication of IOC demand, and simplification of processes of business registration and licensing. Most of the constraints facing private sector are currently being addressed to some extent but for several constraints significant additional support is required (e.g., assistance with access to finance for suppliers, alleviation of infrastructure bottlenecks).



**Table 1: Addressing General Constraints Faced by the Local O&G Suppliers in Uganda**

#	Issue	Key Findings	Key Strategic Actions	Timeframe
1	<i>Lack of information on opportunities in the O&amp;G sector for local suppliers</i>	IOC procurement plans are not known to suppliers in advance; tender announcements require an answer within several weeks; unless suppliers have some “connection” to the IOCs/EPC, there is little public information available	Making IOC procurement plans known well in advance; establishing an IEC to inform suppliers of upcoming opportunities	12-18 months
2	<i>Business environment uncondusive to private sector growth</i>	In the <i>Doing Business (DB) 2015</i> report, Uganda ranked 150 (out of 189 countries). In the <i>Global Competitiveness Index 2014-15 Report</i> , Uganda ranked 122 (out of 144 countries).	Implementation of investment climate reforms, including simplifying the processes of business registration, business licensing, obtaining construction permits, getting electricity, paying taxes, registering property, trading across borders.	24-36 months
3	<i>Challenges with accessing credit for local suppliers</i>	Lack of long-term resources in the financial system; inadequate financial infrastructure; lack of acceptable collateral; low financial literacy; availability of other investment options for financial institutions	Establishing risk sharing facilities, credit lines (especially for long-term capital) for O&G suppliers; developing capital markets; carrying out pension system reform; strengthening credit infrastructure; capacity-building of financial institutions and MSMEs;	12-18 months
4	<i>Inadequate infrastructure</i>	Poor road infrastructure; lack of access to electrical grids, water etc.	Alleviation of major infrastructure bottlenecks (access to electrical grids, water, road network); exploring possibilities for establishing an industrial park with shared facilities	24-36 months
5	<i>Difficulties meeting IOC quality standards</i>	Differing standards between the IOCs; lack of knowledge by suppliers which standards apply in particular fields; high costs of certifications; challenges with finding acceptable service providers	Harmonization of quality standards between the IOCs; completion of the documentation of the required quality standards; capacity-building of business development service (BDS) providers and suppliers on standards	12-18 months
6	<i>Difficulties meeting high volume/quantity requirements</i>	Contracts are large and require suppliers to have significant capacity; financing to increase production capacity is difficult to obtain	Unbundling contracts where possible to ensure that more local suppliers become eligible to bid; improving access of suppliers to finance to increase capacity	12-18 months
7	<i>Limited business knowledge of suppliers</i>	Limited knowledge of suppliers on how to prepare bids, what quality standards to use, where to obtain information on the O&G industry	Establishing an IEC to provide comprehensive local content development programs to suppliers in the O&G industry	12-18 months

5. **Besides the initiatives benefitting all O&G suppliers, supplementary actions can also be developed to target priority sectors and regions for maximum impact.** Such interventions have the potential to solve bottlenecks in a focused way.

6. **The Industrial Baseline Survey (IBS) carried out by the IOCs identified twenty five sectors with high potential for national content.** These include transportation and logistics, food supply, domestic waste management, facility management, manpower agency, work safety products, road construction and others. These are the sectors which are less technical and where

local capacity exists. Unfortunately, there are only two sectors (security and cement manufacturing) among the twenty five which are meeting O&G standards and have a quantity gap of less than 10 percent. The remaining twenty three sectors face either quantity, or quality gap, or both. Without support, national content in these sectors will be much lower than it could be. Support can be provided through matching grants for technology improvement, quality certification, infrastructure interventions benefitting these sectors, dedicated financing programs.

7. **Additional support can be targeted to specific regions of the country to improve competitiveness of the private sector there.** Due to the importance of Kampala for national economy and availability of many businesses which could serve the O&G industry there<sup>1</sup>, it is strongly recommended that Kampala become the center of national content initiatives. The IEC would be expected to be headquartered in Kampala to accommodate entrepreneurs located in the capital and nearby districts. At the same time, satellite centers would be set up in one or several districts of the Albertine Region where oil fields are being developed to ensure active participation of enterprises in those districts in supplying the oil camps. Similar approach was taken by a number of other countries which set up enterprise development centers<sup>2</sup>.

8. **The possibilities for extensively involving the private sector of the Albertine Region in the oil industry as suppliers also need to be explored.** The prospect of supplying food to the oil camps appears a major opportunity for the region given that most of the population is involved in agriculture. Achievement of a significant level of participation of the Albertine Region is highly desirable- both from the social and economic standpoint.

9. **A positive example already exists in the Albertine Region.** Traidlinks, a NGO in the Hoima district, has helped local farmers grasp opportunities coming from the oil fields development through supplying fresh fruits and vegetables to the oil camps. By December 2013, the Traidlinks project had provided over 25 tons of fresh produce to Tullow camps and around 600 farmers had been trained in business skills and quality assurance. So far, Traidlinks remains the sole initiative aimed at linking Albertine region suppliers to oil camps in a systematic manner. Originally it was meant to be a pilot to be scaled up to other districts, but due to lack of funding, the scale up did not take place. Going forward, there are three possible approaches to increase participation of the Albertine region in supplying the O&G industry (**Table 2**).

**Table 2: Approaches to Increase Participation of the Albertine Region in the O&G Sector**

Approach	Description	Considerations
<i>1.NGO</i>	NGO lobbies IOCs and other agencies to finance its operations (as in the case of Traidlinks). Training and inputs are provided to smallholders; produce is aggregated and supplied to oil camps.	As evidenced by Traidlinks' activities, this approach has achieved only a small impact. A larger impact could be achieved if operations were expanded to other districts of the region and assistance was provided to enable supply of other food categories besides fruits and vegetables

<sup>1</sup> A large number of members of the association of oil and gas service providers are based in Kampala

<sup>2</sup> For example, in Chad the main center was located in the capital N'Djamena with satellite centers in Doba, Moundou and Sahr in the South. Once the demand from the oil sector goes down, the center can serve other industries, and its location in the capital facilitates this transition. Following the decline in oil related activities, the center in Chad later became a unit of the chamber of commerce.

2. <i>The large scale investor</i>	Large scale investors (possibly foreign) would set up processing facilities in the Albertine Region and use local smallholders as outgrowers or contract farmers.	A package of incentives (e.g., tax incentives, land concessions) could be provided by the GoU to investors to set up operations in the region and use smallholders as outgrowers or contract farmers. Each investor could target a particular product or a group of products (e.g., milk plant, chicken farm, beef plant).
3. <i>The agro-industrial park</i>	A group of enterprises would be housed within the agro-industrial park area with shared infrastructure. On the agricultural side, housed enterprises could include processing plants for fruits and vegetables, milk, meat and fish, among others.	This approach could help Uganda achieve the much needed transformational impact as shared facilities would help to overcome the challenges of the high cost of modern infrastructure. The government has earmarked 29 square km of land for the construction of the refinery and infrastructure, and 2-3 km could be available for housing of agro-processing enterprises within this area. Nevertheless, caution needs to be exercised with this approach due to many failures of industrial parks in the world in general and negative experiences in Uganda (in particular, Namanve park).

10. **Strategies also need to be designed for the periods following the scale-down of procurement by the IOCs when the construction phase is over.** Both the authorities and the businesses need to keep in mind that the high demand from the O&G industry will be very short lived. After the demand goes down, businesses which benefitted from the IOC contracts will be expected to continue operating successfully, serving other industries in Uganda and abroad, and for this they need to be competitive. A labor mobility strategy (e.g., redeploying skilled professionals from O&G industry to other fields) needs to be carefully thought through. Strategies for redeploying O&G suppliers to other industries in Uganda or foreign markets which demand similar goods and services also have to be developed. When selecting priority sectors for national content development, it would be particularly important to consider possibility of using products of these sectors in other industries in Uganda and/or overseas.

*OIL AND TOURISM- CO-EXISTENCE OF THE TWO KEY DRIVERS OF UGANDA 'S ECONOMY*

11. **Tourism is a critical player in Uganda’s economy.** Each dollar of expenditure by a foreign tourist in Uganda generates 2.5 dollars of GDP. In terms of competitiveness of the sector, at present Uganda lags behind a number of regional peers: it currently ranks 13<sup>th</sup> on the regional ranking of the travel & tourism competitiveness index, behind such neighbors as Kenya (8), Rwanda (9) and Tanzania (12).

12. **Uganda’s main tourism resources include renowned national parks and wildlife.** Murchison Falls National Park (MFNP) attracts the largest number of visitors. 40 percent of Uganda’s known oil resources also lay beneath it. Uganda is not the only country to discover oil reserves in the national parks. Both developed and developing countries around the world are also facing the challenge of balancing extractive activities and tourism activities in protected areas, including Canada, Australia, Ecuador, Peru, and Democratic Republic of Congo (DRC).

13. **At present, Total operates in two exploration areas which are mainly located in the northwestern part of MFNP.** During the construction phase, it is estimated that around 750-800 wells will be drilled. Development drilling activity will span over 13 years and up to three rigs could be drilling simultaneously in the park.

14. **While carrying out its operations, Total has committed to respecting the natural and human environment.** Environmental and Social Impact Assessments are conducted prior to all activities and this process includes stakeholder consultations. On the public sector side, the Uganda Wildlife Authority (UWA) also has provided operational guidelines for O&G exploration and production in protected areas to regulate the behaviors of oil companies operating in the park.

15. **The ongoing oil activities will bring both benefits and challenges to the tourism sector and the local communities.** Improved access and upgraded infrastructure required for full-scale oil operations will benefit the development of the tourism sector in the region. For instance, the planned upgrade of the Kyenjojo-Hoima-Masindi–Kigumba road will enable tourists to significantly reduce driving time between Queen Elizabeth and MFNP. Oil is also expected to attract more travelers to the region: the numbers of business travelers for oil operations and related conferences have already been increasing and the region has attracted new investments in hotels. As the oil sector moves from exploration phase to development and eventually production, there is a growing opportunity for local supply of services such as accommodation and transport. Business travelers and service providers for the oil sector are also likely to travel to other parts of the country. With more effective planning and a regulatory system, local communities could be expected to benefit more from the growing hospitality industry. Finally, due to increased scrutiny over oil activities in the park, there has been significant progress in the fight against poaching: UWA has discovered hundreds of snares targeting animals in the park, which otherwise would not have been discovered.

16. **But oil will also bring challenges to the tourism sector.** Oil extraction activities in the national park have a potential to negatively affect the overall image of Uganda in the eyes of tourists. To better understand current tourists' experience in the MFNP, a survey was conducted by the team from the MoTWA and the World Bank in MFNP in 2014. The goals of the survey were to provide insights into the potential impact of oil activities on tourism and the possible mitigation measures to ensure the beneficial cohabitation of oil and tourism in the park.

17. **At the time when the survey was conducted, Total had already completed exploration and appraisal activities and there were no oil exploration activities ongoing.** Nevertheless, 45 percent of the sample still reported that they noticed some oil activities in the park. They saw workers, tracks, oil rigs, and no entry signs. 39 percent of surveyed tourists reported that oil activities had some negative impact on their experience. When asked about the improvements which could be done to enhance tourists' experience at the park, the majority of the respondents agreed that improvements were desirable. Tourists were largely in favor of separating oil and tourism activities as much as possible, including utilizing separate tracks, entrances and ferries. Answers also indicated that tourists need to be provided more information on oil related activities than is currently being provided.

18. **Uganda is not the only country to discover oil reserves in the national parks.** A number of countries around the world are also facing the challenge of balancing extractive activities and tourism activities in protected areas. In the Amazon basin area, both Ecuador and Peru have announced that oil exploration will start in their national parks. In the DRC, oil exploration activities have been permitted in Virunga National Park which is Africa's oldest national park and home to critically endangered mountain gorillas.

19. **Due to the national economic interests, the challenges between protected areas and the extractives industry are not unique to the developing countries: developed countries are also working to identify the best practices.** For example, Canada’s Sable Island, the national park which is home to wild horses and the largest grey seal colony in the world, is located in the middle of a petroleum field. To reduce the impact of oil-related activities on the national park, legislation limits oil and gas exploration activities to only those that are considered as low impact. Overall, there are a number of examples of oil and mining companies supporting improvements in protected areas systems, through contributing to the creation and extension of protected areas to include biodiversity values identified through project site assessment; providing direct financial assistance or non-monetary resources to unfunded parks; and supporting the development or implementation of protected area management plan.

20. **Based on the results of survey and the lessons learned from other countries’ experiences, Uganda’s stakeholders and policymakers need to develop a strategic framework to promote the co-existence of oil and tourism sectors during the lifecycle of oil field development.** An oil and tourism communications unit needs to be established to help coordinate between different groups and coordinate planning and implementation efforts. This unit would need to be government endorsed. Tourists, rangers, lodge owners and other MFNP stakeholders need to be provided information about the oil-related activities, and this information needs to come from the government (not the IOCs) to ensure its objectivity. Currently, the preparation of national oil spill contingency plan has been initiated by PEPD with the support from Norwegian government.

21. **As oil is a finite resource and tourism is going to be one of the top sectors driving Uganda’s economy in the long-term, it is essential for the GoU to ensure that appropriate measures are taken to minimize disruption to the tourism activity at MFNP while oil activities are ongoing.** Please refer to **Table 3** below for the main issues caused by oil-related activities at MFNP and key strategic actions to address them. Tourism and oil-related activities need to be separated as much as possible to ensure that Uganda can benefit to the fullest from both of these sectors. More weight needs to be given to the development of tourism activities in the MFNP which would not be impacted by the oil. Finally, it would be essential to fully restore affected sites (including replanting vegetation indigenous to the area) following the completion of activities.

**Table 3: Addressing the Potential Issues Caused by the Oil-Related Activities in MFNP**

#	Issue	Key Findings	Key Strategic Actions	Timeframe
1	<i>Information on oil-related activities in the park is limited and mainly provided by the IOCs</i>	No materials are currently provided to tourists on oil-related activities by park authorities and Total flyers are the main source. The results of the survey of tourists at the MFNP indicated that the majority of tourists wanted more information to be provided. Many guides/rangers are not knowledgeable about oil activities and do not possess the latest information on the upcoming oil field development activities.	Providing sufficient information to the tourists, guides/rangers in the park and other stakeholders to ensure that they possess up-to-date information on the oil-related activities. The information needs to come from the government (and not Total) to ensure its objectivity.	6-12 months

2	<b>Potential deterioration of natural and wildlife assets</b>	The results of a study on responses of wildlife show lower densities of the larger mammals and birds in MFNP. Some restored sites were not replanted with vegetation indigenous to the area. The population has been moving closer to the park in search of job opportunities.	Development of integrated land use plan; intensification of restoration efforts in the areas where activities have finished; continuation of monitoring of the migration and sightings patterns of the key animals species; improving community readiness and capacity building.	12-18 months
3	<b>Disruption of tourism activities</b>	Oil workers and tourists use the same ferry and the same entrances and tracks. Oil related activities cause congestion and noise in the park. High ratio of oil workers to tourists is expected when rigs drilling starts during the construction phase.	Separation of oil activities and tourism activities; developing tourism products which are not affected by oil; engaging cross-sector stakeholders; establishing operational guidelines and legislation.	12-18 months
4	<b>Threat of negative destination brand and lower competitiveness</b>	Uganda currently ranks only 13 <sup>th</sup> on the regional ranking of the travel & tourism competitiveness index, behind regional neighbors. Kenya, Rwanda and Tanzania. If tourists have a negative experience at MFNP, the most visited park in Uganda, it can further reduce the value of Uganda's tourism offering. Comments provided by tourists reflected many concerns about the future of the park.	Establishing a government endorsed oil and tourism communication unit to help coordinate efforts to ensure co-existence between oil and tourism; developing communication strategy to inform both stakeholders and tourists; conducting periodic surveys of tourists' and guides'/rangers' perceptions once oil-related activities re-start in the park	12-18 months
5	<b>Threat of oil spill disaster</b>	An oil spill disaster would lead to decreased demand for leisure tourism, decline in related tourism expenditures and interruption of local economic development.	Making environmental bond mandatory for IOCs; implementation of disaster prevention mechanism; developing disaster strategy and action plans.	18-24 months

# INTRODUCTION

## 1.1. PURPOSE AND OBJECTIVES

22. **The study represents a background study for the proposed Uganda Country Economic Memorandum (CEM)**, a joint product of the GoU and the World Bank, which seeks to address the issue of efficient use of oil resources and examine synergies between the oil industry and the rest of the economy, through growth poles or linkages.

23. **The oil industry can help Uganda to promote robust growth in the economy.** Oil revenues can be used to finance priority domestic investments crucial to diversified growth. However, it is important to keep in mind that it will take a number of years until oil revenues start flowing into Uganda's economy. After the Final Investment Decision (FID) is reached, it will take time to develop the oil fields and start oil production.

24. **In the meantime, there are immediate opportunities opening up for Uganda's businesses to supply the oil industry with goods and services.** The demand from the IOCs will be high during the period of construction and these opportunities need to be leveraged by the domestic private sector to the fullest. The IOCs would like to procure a range of goods and services locally to keep their costs down, and ability to do that might have an impact on whether FID will be made or not.

25. **In most cases, Uganda's suppliers, especially MSMEs, are not expected to become first tier contractors to the IOCs.** They will likely be sub-contractors, oftentimes in the very bottom of supply chain, and will face a lot of challenges. It is essential to ensure that Uganda's suppliers are sufficiently competitive to supply part of the IOCs' requirement for goods and services. This study focuses specifically on the considerations for the development of competitive domestic suppliers to serve the emerging oil and gas sector.

26. **The main objective of this study is to provide recommendations to the GoU on policies and strategies of leveraging the oil discoveries for the development of the national economy in order to transform the oil resources into sustained growth.** Using desk review, interviews, focus groups and survey, the study conducts the analysis and provides recommendations in the following four areas:

- Overview of local content policies in the world

The study reviews the typology of policies for local sourcing used in the world. It includes ample examples of other countries' experiences with developing their local content policies and providing support to priority sectors to boost local content which could be useful for Uganda from the standpoint of lessons learned. As part of this work, roundtable dinners on national content featuring speakers from oil-producing nations are also financed in Uganda.

- Recommendations for domestic supplier development in Uganda

The study conducts a detailed analysis of the binding constraints faced by domestic oil and gas suppliers in Uganda, takes stock of existing national content support initiatives and identifies areas which are in urgent need of further support.

- Value chain analysis of agriculture and fisheries

The IBS carried out by the IOCs identified a number of high-potential sectors for national content development. As part of this study, it was decided to select one high-potential sector - food supply for the oil camps - to perform an in-depth value chain analysis. This analysis is complementary to a broader review conducted as part of the IBS. We note that the available budget for the study did not allow for a comprehensive analysis of several sectors; as such, only one sector was analyzed in-depth.

The study examines how the oil sector can be used as a driver of agriculture and fisheries sectors in the Albertine Region and other regions of Uganda from the standpoint of food supply to the oil camps. Food supply has been selected as the focus of the study for multiple reasons. First, it is usually a relatively easy win for local content in many developing countries compared to some other sectors the development of which would be much more complex (for example, oilfield equipment manufacturing)<sup>3</sup>. Second, in Uganda's economy, agriculture is still the largest employer. The Albertine region's livelihoods specifically depend on agriculture and fisheries, with 90 percent of people engaged in agriculture. While we would not expect that all food supply would come from the Albertine region, it would be very beneficial to ensure that some of it does come from the region to meet the expectations of the locals and give them an opportunity to benefit from the development of the oil sector.

- Oil and tourism- recommendations to ensure co-existence of the two key drivers of Uganda's economy.

Because 40 percent of Uganda's known oil reserves are found in the MFNP<sup>4</sup>, one of the greatest tourism attractions in Uganda, it is critical to ensure that risks which oil can pose to the tourism sector in the country are properly managed. The study explores the issue of co-existence between the oil sector and the tourism sector, another important driver of Uganda's economy, to provide recommendations on how growth in the economy from the development of the oil sector can be complemented by growth in the tourism sector.

**27. The recommendations developed as part of this study will contribute to the achievement of the objectives of the Uganda CEM, including on how to leverage the new oil resources to promote diversified growth of the economy.** The study will provide critical input in the area of the growth potential of Uganda and specific sectors which can drive future growth of the country. The study will also inform the overall program of the WBG in Uganda, including sector programs and the reform agenda of the country.

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<sup>3</sup> We note that development of local content in agriculture can also face a lot of challenges, which should not be underestimated. Some of the challenges relate to the inability of smallholders to deliver consistent quality and quantity on a defined schedule, meeting high quality standards, unavailability of processing/packaging/storage facilities etc.

<sup>4</sup> Developing the Lake Albert Upstream Resources, Total, 2013



## 1.2.METHODOLOGY

28. **The analysis has been based on a combination of document review and analysis, key informant interviews, group discussions, as well as survey.** We reviewed the existing literature of the local content policies used in the world, with particular focus on Africa, and extracted examples which could be relevant for Uganda's context. We also conducted a number of interviews to understand constraints facing local enterprises who want to supply the oil industry and existing national content support initiatives in Uganda. Finally, we proposed feasible options, relevant to the Uganda context, to support national content development in the petroleum sector. In obtaining information, we have sought to use the following means:

- **Desk Review.** The team conducted a desk review of existing literature on local content development in other countries to draw lessons learned by other nations in the development of local content in the petroleum sector. Extensive research of available reports on national content development in Uganda conducted to date has also been undertaken. **Annex 15** lists the full bibliography.
- **Roundtable Dinners on National Content.** Some of the countries, experience of which would be useful for Uganda from the standpoint of lessons learned, were featured in the cycle of roundtable dinners on national content. The roundtable dinners were chaired by the Ministry of Energy and Mineral Development and benefitted from the technical support and practical knowledge of an expert coming from the country featured at a particular session. Countries featured included Ghana, Malaysia, Egypt, Nigeria, and Gabon. Discussions held by stakeholders as part of the dinners have been reflected in this report.
- **Working Groups.** The team participated in the working group on the establishment of the Industry Enhancement Center (IEC) to support suppliers of the oil and gas industry.
- **Interviews.** Detailed information regarding national content development in Uganda has been obtained through interviews with the senior executives of governmental agencies, IOCs, financial institutions, micro, small and medium enterprises (MSMEs) engaged in the oil and gas sector, as well as key players in the agriculture sector. Discussions served as a source of opinions, insights, and hypotheses on the constraints existing for local enterprises to supply the oil industry in Uganda and to get a grasp of existing national content support initiatives. The team also interviewed a large number of tourism sector stakeholders to explore the topic of co-existence between the tourism sector and the oil sector. The list of key informants is presented in **Annex 16**.
- **Focus Groups.** During the course of the assignment, the team interviewed several entrepreneurs as part of the oil and gas suppliers focus group to discuss constraints they are facing in supplying the oil and gas industry. The team also conducted focus group discussions with farmers and fishers in the Albertine Region.
- **Survey.** The team undertook the survey of tourists' perceptions at the MFNP to provide insight into the potential impact of oil activities on tourism and the possible mitigation measures to ensure the cohabitation of oil and tourism in the park.

# CHAPTER 1. LOCAL CONTENT POLICIES IN THE OIL AND GAS SECTOR

## 1.1. INTRODUCTION

29. **The demand for oil is the result of our demand for energy.** Oil has been the leading source of energy since the early twentieth century due to its perceived benefits vis-à-vis other types of energy. Oil has distinct advantages as a carrier of energy: it has a high content of energy per weight unit, which minimizes transportation costs; it is rather easily handled, being fluid and storable without much cost. The fluidity of oil makes uninterrupted supply of fuel easy to achieve and the high energy-to-weight ratio makes it possible to carry sufficient energy supplies in a vehicle for travel over long distances. Furthermore, oil products are not easily displaced in certain types of use. For instance, oil is the only type of fuel used in aviation. Cars, trucks, aircrafts and ships use almost exclusively oil products for their engines. Oil continues to dominate in the transportation sector which is critical for any country's economy. Oil is a strategic commodity, and without it, modern society as we know it would cease to exist.

30. **The success of oil has largely come from its availability in sufficient quantities and at a reasonable price.** Oil is a nonrenewable resource. It is formed underground from remains of an organic material such as debris; although it is an ongoing process, the rate of formation of new oil is extremely slow, and what we are using now is immensely greater than whatever is being formed. Ever since oil was discovered, however, additions to known reserves have been as great as or greater than what we are using up<sup>5</sup>. Such additions have come both from finds such as offshore fields that are expensive to exploit and less expensive finds onshore. Technological progress has exerted a steady downward pressure on extraction costs.

31. **There are different types of oil, some of which are more valuable than others.** Crude oil is fairly useless in its natural state and to be useful, it must be refined. Oil can be refined by heating it; the lighter the product, the lower the temperature is at which it evaporates. Crude oil that contains a large proportion of molecules with few carbon atoms is referred to as "light", while oil containing small amounts of hydrogen sulfide and carbon dioxide is referred to as "sweet". "Light sweet crude oil" receives a higher price in the commodity markets and is the most sought-after version of crude oil as it contains a disproportionately large fraction that is directly processed into gasoline, kerosene, and high-quality diesel when converted into products by an oil refinery. Some of the producers of light sweet crude include the United States, Norway, India, Angola, Democratic Republic of Congo (DRC), Nigeria, and others.

32. **For many low income countries, particularly in Sub-Saharan Africa, the extractive sectors represent one of the most crucial sources of investment and income in their economies.** Such countries are largely dependent on revenues flowing from extractives for their economic development and the welfare of their population. Extractive sectors rely heavily on foreign investment, and foreign direct investment (FDI) inflows have expanded rapidly over the past decade. Linkages and spillovers from this FDI can play a critical role in ensuring that the countries benefit over and beyond the lifespan of oil, gas, or mining project and develop

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<sup>5</sup> Rognvaldur Hannesson. Issues and Strategies of Oil and Natural Gas Production. Quorum Books. 1998

sustainable and competitive alternative sectors. Given the non-renewable nature of the extractive sectors, this is a particularly critical concern for policymakers.

33. **Africa accounts for 9.7 percent of the world's proven oil reserves**<sup>6</sup>. In 2007, Africa produced 488.5 million tons of oil and consumed 138 million tons. Africa is home to several large oil producers, such as Algeria, Angola, Chad, Cameroon, Republic of Congo, Egypt, Equatorial Guinea, Gabon, Libya, South Sudan and Tunisia. Nigeria is Africa's largest oil producer and has been producing oil for many years. A number of African countries, such as Uganda, Kenya, Ethiopia, and others, are now busy exploring oil and are hoping to join the ranks of oil-producing nations in the near future. One of the key challenges facing the African countries trying to develop the oil industry is lack of local expertise and technologies in the oil sector.

## 1.2. OIL AND GAS VALUE CHAIN

34. **One of the most distinctive features of the extractive industries is the diversity of different functions within them and of the range of professional and management skills necessary to accomplish them.** These sectors use a number of goods and services.

35. **O&G value chain is complex.** It includes the global processes of exploration, development, production, treatment and Liquefied Natural Gas (LNG), refining, petrochemical and primary distribution. **Annex 1** presents the main inputs across the oil/gas value chain.

36. **Because oil industry uses goods and services from other industries as inputs and its products have a lot of uses in other industries, it has backward and forward links with other sectors of the economy.** *Backward* links relate to the demand of one industry for the outputs of other industries known as *upstream* (to be used as its inputs). For the oil industry, these are activities related to providing goods and services to the companies that perform oil exploration and production. *Forward* links relate to the output of one industry as supplied to other industries, which are called *downstream* (as input for their output)<sup>7</sup>. For the oil industry, the downstream sector refers to the refining of petroleum crude oil as well as the marketing and distribution of products derived from crude oil. The downstream sector touches consumers through products such as gasoline or petrol, kerosene, jet fuel, waxes, as well as hundreds of petrochemicals.

37. **Depending on a country, oil sector can have strong or weak links with other sectors of the domestic economy:**

- **Backward links.** In those cases when the oil sector sources a lot of inputs from the local market (both labor and the outputs of other sectors), backward linkages are strong and such purchases provide significant benefits to the domestic upstream industries and economy in general. If a lot of domestic labor is employed, local employees will spend much of their wages on domestically produced goods, and thus create even more jobs. If inputs are largely purchased from domestic suppliers, this benefits not only this particular company but also companies from which inputs for production are purchased. Whenever most inputs

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<sup>6</sup> Ruchita Beri, Uttam Sinha. Africa and Energy Security. Academic Foundation New Delhi. 2009

<sup>7</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

are imported, the connection with local economy is limited and so are the benefits for the economy. In this study, we are primarily concerned with backward linkages due to the current stage in the cycle (i.e., development).

- **Forward links.** Oil extraction also can supply other sectors (e.g., refineries, petrochemical industry), creating forward linkages for the local economy if such downstream industries are domestically situated. Oil is the raw material for many chemical products, including pharmaceuticals, solvents, fertilizers, pesticides, and plastics. **Table 4** shows the uses of different oil products.

**Table 4: Uses of Different Oil Products<sup>8</sup>**

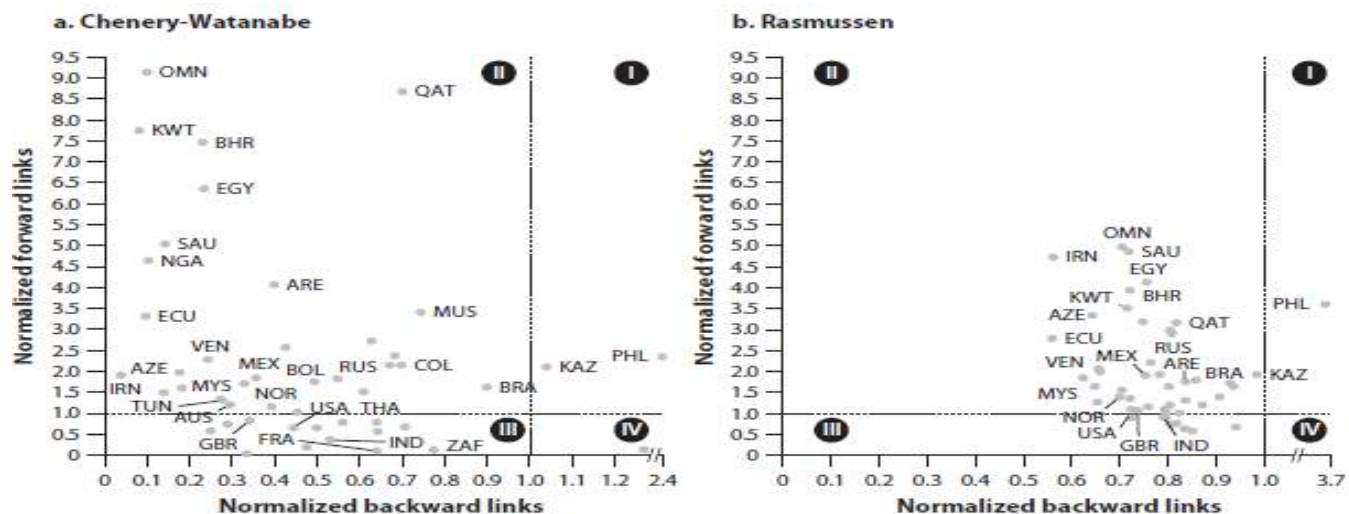
#	Product	No. of carbon atoms	Main uses
1	Gas	1-4	Fuel, carbon black
2	Petroleum ether	5-7	Solvent, dry cleaning
3	Gasoline	5-12	Motor fuel
4	Kerosene	12-16	Stoves, diesel engines, rockets, and jets
5	Gas oil (fuel oil)	15-18	Furnaces, diesel engines
6	Lubricating oil	16-20	Lubrication
7	Greases	18+	Lubrication, sizing paper, medicines
8	Paraffin (“wax”)	20+	Candles, waterproofing
9	Petroleum coke		Fuel, carbon electrodes

38. **In the recent World Bank study *Local Content Policies in the Oil and Gas Sector*, the authors have undertaken an analysis to calculate backward and forward links from the oil and gas sector for a sample of 48 countries.** The data used in the study was obtained from the Global Trade Analysis Project (GTAP8) database which reports intermediate demand and bilateral trade flows for the years 2004 and 2007. The researchers used the most recent data available in the database (from 2007) and calculated normalized links (ratio of the oil and gas sector link to the average unweighted link over all sectors, with a value greater than unity implying that the key sector has a greater link than the average across other sectors in the economy grouped). The results are presented in **Figure 1**.

39. **The measurement of backward and forward links was formalized by Rasmussen (1956) and Chenery and Watanabe (1958), based on the use of input-output tables.** An important distinction between these two approaches is treatment of direct and indirect links. Chenery and Watanabe concentrated on the immediate inputs into a sector (backward link) or immediate outputs provided to other sectors (forward link). At the same time, while Rasmussen focused on the cumulative effect of both direct and indirect links (e.g., for backward links- inputs into the sector, the inputs into these inputs, and so on). Local content policies (LCPs) are most often concerned with the direct links (sectors supplying the oil and gas sector) and more rarely with indirect links (how supply sectors affect other sectors).

<sup>8</sup> Hussein K. Abdel-Aal and Robert Schmeltzer, *Petroleum Economics and Engineering*

**Figure 1. Chenery-Watanabe and Rasmussen Links from the Oil and Gas Sector<sup>9</sup>**



Source: World Bank data.  
 Note: Acronyms used in these graphs are provided in appendix D.

40. The results have shown that the strength of links between the oil sector and other sectors greatly varies from country to country but some broad inferences could still be drawn:

- There are very few countries which have relatively high both backward and forward links between the O&G sector and other sectors of the local economy. In all countries studied, forward links are stronger than backward ones, and backward links are predominantly low compared to that of other sectors for the majority of countries. Few, if any, industries have a lower direct backward link. The low values are due to the fact that relatively inputs purchased locally as they are sourced mainly from abroad. Indirect backward links are higher but still below forward ones, and the sector's pull on the rest of the economy is lower than the average for other sectors.
- In most countries, O&G industry has one of the highest forward links with the rest of the economy. The direct Chenery-Watanabe forward link (FL<sub>cw</sub>) is substantially larger than the average for other sectors in 33 of the 48 countries in sample. In these 33 countries the forward link was among the highest across sectors. The direct plus indirect forward link is even higher in most countries. When domestic downstream industries are present in the country, they greatly benefit from the oil sector. Therefore, in many cases, it can be beneficial for countries producing oil to establish downstream sectors because they can draw heavily on the domestic oil sector and use this to add value.

41. Based on the results of the World Bank study, Local Content Policies in the Oil and Gas Sector, oil and gas sector in Uganda exhibits both backward and forward links with other sectors of the economy:

<sup>9</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

- **Backward links.** Consistent with the results of many other countries, oil sector backward links in Uganda are significantly weaker than forward ones. For Uganda,  $NBL_{CW}$  is 0.61, which is significantly below 1 (value of 1 would imply that the link is average compared to other industries). Compared to other countries in the region, Uganda ranks somewhere in the middle. It is evident, however, that it is significantly behind some other countries. For Uganda, only 18 sectors (out of 54) appear to have direct backward links with the oil and gas sector, compared to 52 for Philippines (out of 53). Consistent with results of many other countries,  $NBL_R$  is higher than  $NBL_{CW}$ , implying that the relationship with the economy is stronger when indirect links are taken into consideration. It is necessary to note, however, that the data used in the study has been from 2007 and a number of actions were taken by the GoU since then to help build the local content, so backward links could be higher with more updated data. **Figure 2** below shows some comparisons between Uganda and some other countries in Africa and other regions.
- **Forward links.** Similar to most other countries, Uganda demonstrates relatively strong forward links of the oil sector with other sectors (greater than 1), with  $NFL_{CW}$  being 1.5. Although not the highest among the countries (compared to Bahrain with 7.45 and Nigeria with 4.62), this value is still significant.

**Figure 2: Backward and Forward Links of the Oil/Gas Sector-Uganda vs. Select Countries<sup>10</sup>**

Normalized Backward Links			Normalized Forward Links		
Country	$NBL_{CW}$	Rank	Country	$NFL_{CW}$	Rank
Philippines	2.4	52	Bahrain	7.45	49
Kazakhstan	1.04	33	Nigeria	4.62	50
South Africa	0.78	13	Mauritius	3.4	47
Mauritius	0.74	26	Malawi	2.56	49
Cote d'Ivoire	0.71	12	Philippines	2.34	47
<b>Uganda</b>	<b>0.61</b>	<b>18</b>	Kazakhstan	2.1	50
Malawi	0.43	7	<b>Uganda</b>	<b>1.5</b>	<b>41</b>
Cameroon	0.39	3	Cameroon	1.14	42
Mozambique	0.33	7	Cote d'Ivoire	0.66	31
Bahrain	0.23	5	South Africa	0.11	11
Nigeria	0.1	5	Mozambique	0.03	9

### 1.3.OVERVIEW OF LOCAL CONTENT POLICIES IN THE WORLD

#### *Definitions of Local Content*

<sup>10</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

42. **In broad terms, LCPs are government interventions that look to increase, in the long term, the share of employment or of sales to a sector that are locally supplied at each stage of the value chain.** Such policies encourage the participation and development of national labor, goods and services, technology, and capital. LCPs are part of a broader category of policy interventions called productive development policies (PDPs), or industrial policies<sup>11</sup>. LCPs have been adopted and applied by large number of governments including those of the developed economies at the period of their industrialization. Australia used local content in its automobiles and tobacco industries, Canada used the policy in its automobiles industry, and most of the European countries also applied the policy in their automobile and electronic industries. Other countries also used the policy extensively in their wind power industries<sup>12</sup>.

43. **The correction of the market failure is usually used to justify LCPs.** In the oil and gas sector, market failure could be caused by the fact that a country is still new to the oil and gas sector and private sector needs to learn the know-how. Another possible scenario is that small local firms in developing economies are oftentimes not able to participate in the sector due to large contract size and high bargaining power of large MNCs which already have established relationships with the IOCs all over the globe. This creates a bias against the use of local suppliers who are not properly considered for the contracts as they presumably cannot fulfil the requirements of the IOCs as well as the MNCs. There are also social arguments for setting LCPs, such as increase in local employment and compensation of local communities for any adverse effects which come from the oil and gas exploration.

44. **There are numerous definitional issues which need to be discussed when formulating the LCPs.** The concept of “local” is subject to a range of definitions, and it is important for the governments to select the appropriate definition for their LCP. The company from which an input is purchased may be locally based and owned, locally based but foreign owned (in total or in part), or even locally owned but located abroad. It is up to the government to determine what kind of companies will be targeted via the policy. Direct benefits to the national economy can differ depending on the ownership of the “local” company. Any monitoring of local content will need to consider the nature of ownership. Without a clear definition applied consistently to all licensees, it will be impossible to aggregate the data and measure local content.

45. **In order to be effective, LCPs have to be carefully designed to ensure that requirements set by them are commensurate with existing and future local supply capability, as well as the life cycle of the petroleum sector.** Incorrectly designed LCPs can lead to the encouragement of unproductive practices, higher costs, lower quality, restriction of competition, and longer timeframe of completion of tasks. Local content, both actual and potential, will vary over the life cycle of the petroleum sector. An individual field will go through phases of exploration, construction, and production. Because the inputs used at these various stages can be quite different, the extent and nature of local content can vary over time and across stages. LCPs need to recognize this cycle and set realistic targets.

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<sup>11</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

<sup>12</sup> Rabiou Ado. Local Content Policy and the WTO Rules of Trade-Related Investment Measures (TRIMS): The Pros and the Cons. International Journal of Business and Management Studies. 2013

46. **It is also important to note that LCPs are concerned not only with an immediate increase in local content (for example, increasing the percentage of local employment in the petroleum sector) but also with actions that will lead to its longer-term increase.** These include the provision of training in appropriate skills to the local labor force or business development skills to local suppliers). Such a policy does not lead to an automatic increase in local content but, if carried out appropriately, can create and enhance local capabilities that can be applied in the petroleum sector at later stages and also transferred to other sectors. In this context, it becomes important to support the development of skills that are common to all sectors, as well as the creation of cluster developments with other industries that have natural synergy with the petroleum sector.

47. **Given that oil fields are usually located in a particular region of countries (as opposed to being spread around), local content can refer to jobs or value-added that is created anywhere in the domestic economy as a result of the actions of an oil and gas company, or it can more narrowly refer to jobs that are created in the neighborhood of the oil fields.** Policies in most countries normally refer to local content without specifying its location within the economy, but it is also important to take into consideration the interests of communities which are located close to oil fields. It is common that these communities will exert the most pressure to obtain jobs and carry out supplies to the sector, given that they are usually the most affected by the oil sector development (for example, through resettlement due to construction). It is beneficial to take some initiatives to facilitate their participation in the industry to meet their expectations and build trust.

48. **Local content may also refer to the provision of infrastructure by the IOCs that is not an input into its own production but intended for the benefit of the local population.** This infrastructure can include schools, medical facilities etc. and the benefits can be to the nation generally or the neighborhood of the installations.

49. **When designing LCPs, it is important to recognize that policy instruments used to address general market failures are different from those used to promote specific sectors.** The government could be interested in horizontal interventions (support to specific activities-R&D, training, basic infrastructure, business climate) or in vertical/selective interventions (support of specific sectors). PDPs targeted to sectors take into consideration each sector's latent competitive advantage. Because policy interventions for sectors or clusters entail choosing favorites, they are more prone to capture by lobbies. Horizontal interventions are usually less subject to political economy pressures and have been generally more preferred by economists, as long as market failure actually exists. It is important to note, however, demand from the oil and gas sector targets rather specific sectors of the economy, and as the result, LCPs are unlikely to be sector neutral.

50. **The objectives and guiding principles of LCPs in the oil and gas sector may be outlined in overall or specific policy statements and/or economic plans.** Principles and objectives may then be detailed in primary or secondary legislation, and more often than not, in negotiated contracts, licensing agreements, or concession agreements. Channels for LCP implementation can be very diverse. Implementation may rely on a variety of policy tools, including petroleum rights allocation systems, taxes, tariffs, incentives, penalties, procurement rules, and training arrangements.



51. **The manner in which an LCP is codified under law varies considerably.** Local content provisions may be embedded within the wider primary legislation governing petroleum exploration and development (such as Law on Subsoil and Subsoil Users in Kazakhstan), or they may be the object of a separate law on local content (such as the Oil and Gas Content Industry Development Act in Nigeria). LCPs may also be the object of secondary legislation, such as in Angola (Ministerial Order No. 127/03 on the Contracting of Services and Goods from Angolan Companies by Petroleum Industry Companies) and Kazakhstan (Decree No. 965/2012), or be embedded in broader regulation for the petroleum industry, as in Mozambique (Decree No. 24/2004 on Petroleum Operations Regulations). Some governments have issued freestanding LCPs, and these documents vary widely among the countries. For instance, in Ghana and Trinidad and Tobago, local content policy frameworks containing statements of broad principles have been issued. Petroleum agreements (e.g., concessions, leases, licenses, production sharing contracts) commonly contain legally binding requirements on local content, and have traditionally been the dominant vehicle for mandating local content.

#### *Types of Policies for Local Sourcing*

52. **Given the relatively low level of direct employment in the exploration and production (E&P) of oil and gas, the development of domestic suppliers of goods and services is one of the possible benefits of petroleum exploitation.** Most petroleum codes and contracts require that the holders of petroleum E&P rights afford some measure of preference for domestic goods and services. The domestic content provision may be limited, or may contain criteria to compare and select from among competing suppliers.

53. Policies for local sourcing fall into three broad categories:

- **Policies that involve the setting of local content targets;**
- **Policies built around a margin of preference to domestic suppliers; and**
- **Local sourcing policies using process of contract award and execution<sup>13</sup>.**

(i) **Policies that involve the setting of local content targets**

54. **Some countries have set specific targets for local content.** Their legislation requires that certain volume of goods in a particular industry be sourced from local suppliers. These policies may or may not be protectionist, depending on whether the targets are set realistically in relation to the capacity, capability and competitiveness of the local industry, or not.

55. **If the targets are fully commensurate with the local capacity, they can be beneficial for the economy.** This is because they would require IOCs and their Engineering, Procurement and Construction (EPC) contractors to source certain volumes from local suppliers who are capable to supply the goods and services at adequate quality and in sufficient quantities. This would benefit qualified local suppliers who would get the contracts and get an opportunity to grow their business. In many cases, qualified local suppliers do exist (especially when it comes to activities which do not require large investment and specialized know-how), but they do not get selected as preference is given to foreign suppliers which IOCs and their EPCs have had long-term ties. Appropriate LCP

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<sup>13</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

can encourage IOCs/EPCs to look at local suppliers who may be equally qualified and able to meet the demand with a high level of quality.

56. **Nevertheless, it might be quite difficult to determine which targets and realistic and which are not, and very thorough analysis needs to be performed before-hand.** In case if targets are unrealistic, they can lead to unproductive practices in the economy. Moreover, the targets cannot be set for an indefinite period of time; these have to be temporary measures, or else incentives of local companies to invest in improving efficiency and competitiveness will be greatly diminished. **Box 1** below shows experiences of Brazil and Ghana with setting local content targets.

### **Box 1. Local Content Targets – International Experiences**

#### **BRAZIL<sup>14</sup>**

In Brazil local content targets in procurement associated with the criteria for the award of petroleum exploration and production rights have changed over the years. The first licensing rounds set minimum targets for local procurement that operators and their partners—including the national oil company, Petrobras—were obligated meet. The targets were global (i.e., they referred to the total aggregation of local content across all categories of spending in either the exploration phase or development phase).

Later licensing rounds set both global targets and sub-targets for each subcategory of expenditure. For example, round 7 in 2007 established a global minimum of **37 percent** local content for all expenditure during exploration, and targets for individual segments of spending, including **40 percent** for the interpretation of geological survey data, **10 percent** for logistical support to drilling and completion services, and **95 percent** for detailed engineering for field production systems.

The question remains whether these targets represented the capabilities, quality, delivery, and price competitiveness of the Brazilian upstream petroleum supplier market. If this were the case, arguably supplier and subcontractor contracts would have been awarded on an internationally competitive basis. If not, then the contracts were received by local firms which were less efficient and potentially had lower standards, which would not be a positive outcome.

#### **GHANA<sup>15</sup>**

The minimum local content for any petroleum activity in Ghana needs to be set at the levels specified in the First Schedule of the Ghana's Petroleum (Local Content and Local Participation) Regulations, 2013, Minimum Local Content in Goods and Services. Importantly, the regulations specify that the Commission will take into consideration the work program of the licensee and its subcontractors when determining the minimum local content levels to be achieved. The Minister in consultation with the Commission may vary the minimum content level specified in the First Schedule.

The First Schedule includes targets for the start, 5 years and 10 years in future. There are 100% targets for a number of services from the onset: catering, cleaning and laundry, security services.

<sup>14</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

<sup>15</sup> Ghana Petroleum (Local Content and Local Participation) Regulations, 2013

For all other categories, initial targets are below 100% (and in some cases very low, such as 10%) and gradually increase over the years.

The majority of 10-year targets are rather high (70% and higher). There are a number of 10-year targets which are set at 100%. The starting targets are more modest to reflect the currently inadequate local capacity. In order to ensure that ambitious levels are achieved in the 10-year time, it will be critical for Ghana to build up local capacity. If this does not happen, setting these targets will not lead to beneficial outcomes of the LCP. As an example, some of the local content levels set by the First Schedule are shown below. Given that these targets were set up relatively recently, there are no results available yet to determine how realistic they were and if they benefited the economy or, on the contrary, led to unproductive practices.

Item	Start	5 years	10 years
Subsea systems	10%	40%	80%
Steel pipes	40%	80%	100%
Cement	40%	70%	80%
Drilling services	30%	60%	85%
Freight forwarding	80%	90%	100%
Network installation	80%	90%	95%
Pollution control	20%	30%	45%

(ii) **Policies built around a margin of preference to domestic suppliers**

57. **Many countries have also set local sourcing policies involving margins of preference.** A typical clause establishing a margin of preference might read as follows: *“The Operator shall give preferential treatment to the purchase of local goods and services when such goods and services are internationally comparable in terms of quality, availability, quantity required, and are offered at prices inclusive of taxes not higher than X percent of the available imported goods.”* Both Angola and Ghana have used 10 percent as the margin of preference to domestic suppliers.

58. **A more stringent form of domestic preference places restrictions on operators such that only national firms are eligible to tender for certain categories of goods and services.** This policy does not necessarily imply that contracts are awarded on an uncompetitive basis. It is possible that goods and services on the restricted list are available in-country at prices and quality that are competitive with international suppliers. But these rules contravene the principle of open international competition, and can sometimes affect companies’ decisions and strategies with respect to the incorporation of local subsidiaries. The examples of Angola, Nigeria, Malaysia, and Ghana are in **Box 2** below and demonstrate how these countries have set margins of preference and restrictions on tendering for certain categories of goods and services to indigenous companies only.

59. **Margins of preference, like any other forms of domestic preference, entail distortionary effects and inefficiency, which need to be carefully analyzed by policy-makers and weighted against alternative approaches.** To some extent, margins of preference can be

useful in helping domestic suppliers win contracts. However, caution needs to be applied because when competition and transparency are weak, local companies may take advantage of this preference by charging higher than normal prices.

## **Box 2. Margin of Preference Application in Different Countries<sup>16</sup>**

### **ANGOLA**

In Angola the dominant secondary legislation for local content in procurement in the petroleum sector is the *Ministerial Order No. 127/03 on the Contracting of Services and Goods from Angolan Companies by Petroleum Industry Companies*.

The regulation provides for different regimes for different goods/services:

- (1) Procurement expenditures reserved to Angolan companies.** These are activities not requiring heavy capital investment and with a basic, medium or higher level of non-specialized know-how, where foreign companies shall only take part on the initiative of Angolan companies. The list includes the following activities:

  - Pressure tests for storage tanks and oil and/or gas pipelines
  - Transportation of equipment, materials, and foodstuffs, or drilling and production platforms
  - Supply of industrial and drinking water
  - Catering
  - Supply of technical materials
  - General cleaning and gardening
  - General maintenance of equipment and vehicles
  - Supply postoperators and managers (airports, ports, and service stations)
  - Quality inspection of products distributed and marketed (oil products and derivatives)
  - Retail sales of kerosene, gas, and lubricants
  - Transport of products from terminals to supply posts
- (2) Spending categories that fall under the regime of semi-compliance.** These areas require a reasonable level of capital in the oil industry and in-depth know how. Participation of foreign companies in these activities is permitted, but only in association with indigenous Angolan companies. There are many expenditure categories under this regime and some examples include geophysical sciences, drilling controls and fluid analysis, production tests, transportation of crude oil to refinery, manufacture of plastics, and the operations and maintenance of production facilities.
- (3) Spending categories that fall under a competitive regime** which places all other categories of expenditure into international competitive tender. Nevertheless, Articles 5 and 6 of this order provide for Angolan State companies and/or private companies the right

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<sup>16</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

of recourse and preferential rights for indigenous companies if the amount of the relevant bid is no more than **10 percent** higher than those of other companies.

### **NIGERIA**

The 2010 Nigerian Oil and Gas Industry Content Development Act stipulates not only local sourcing targets for a wide range of goods and services but also requires that international companies operating as Nigerian-registered companies “shall demonstrate that a minimum of 50 percent of the equipment deployed be owned by Nigerian subsidiaries.” This means that international companies that wish to be eligible to tender for work in Nigeria have to place into Nigerian ownership at least 50 percent of their equipment and technologies to be used in the contract. The advantage of this policy for technology transfer to the Nigerian economy is clear. But the policy is also not without challenges. These obligations may challenge the ability of equipment producers and service suppliers to protect propriety technologies. Meanwhile, not finding solutions to this challenge may prevent these companies from accessing local markets.

### **GHANA**

In the section *Preference to indigenous Ghanaian companies*, the regulations specify a margin of preference for local suppliers of **10 percent**: in those cases, when the bid of a qualified Ghanaian company does not exceed the lowest bid by more than 10 percent, the contract needs to be awarded to the indigenous Ghanaian company. Moreover, whenever bids are adjudged to be equal, the bid containing the highest level of local content needs to be selected. Whenever a non-indigenous Ghanaian company is required to provide the goods or services, the regulations specify that this company needs to be incorporated in and operated from Ghana, and provide goods and services in association with an indigenous Ghanaian company where practicable.

### **MALAYSIA**

PSAs require petroleum companies to acquire all materials and supplies from Malaysian-registered companies or to purchase them directly from the manufacturer when no Malaysian-registered company is available to provide the required material or perform the service. The law reserves domestic shipping for Malaysian registered vessels. Foreigners are permitted to hold a 70 percent stake in shipping and logistics companies and 49 percent in forwarding agencies. The limitation also applies to vessels that support oil and gas operations. Moreover, restrictions based on citizenship or permanent residency apply to legal services, engineering services, taxation and accounting services, professional services, telecommunications, advertising, financial and insurance services, and banking services. Finally, the law mandates local incorporation of foreign companies and a minimum share of domestic equity holding.

### **(iii) Local sourcing policies using process of contract award and execution**

60. **Reduced Pre-Qualification Criteria.** There is often considerable debate as to whether the criteria adopted to prequalify vendors should be relaxed to avoid excluding local suppliers and contractors from an opportunity to participate in tenders. Introducing some flexibility in prequalification criteria is an important policy consideration. On the one hand, there is a concern about the possibility that substandard vendors may be allowed to bid- particularly on contracts that require minimum levels of health and safety, quality and management experience- as this could affect project implementation leading to delays, cost overruns, and/or accidents. Moreover, a

rigorous prequalification process may help local vendors to understand and address their weaknesses. Local vendors that successfully obtain prequalification may become more attractive to international partners and in future obtain contracts not only with the IOCs but other large companies. On the other hand, reality on the ground might dictate that some criteria could be relaxed without sacrificing quality, and relaxing these criteria would open the door for a number of strong local suppliers, especially for certain kinds of contracts. It might be challenging to strike the right balance; supplier databases detailing capabilities of suppliers might be a useful tool in demonstrating what local suppliers are available and helping to make the correct determination on whether pre-qualification criteria need to be reduced.

61. **Bid evaluation.** Overall, the tender evaluation criteria and weightings in contract awards are important tools to support and drive LCPs. The relative weight assigned to each criterion, as well as the absolute weight that local content carries among overall criteria (which will usually include technical capability and commercial terms) need to be given careful consideration. In practice, it is more likely that local content will command a lower weight in contract award in cases where the opportunities to use local labor or materials are weak. This might include contracts for drilling services, proprietary equipment, or specialist engineering design services. In contrast, one might expect local content within logistics and accommodation contracts to command higher weighting, as there are usually many qualified suppliers available.

62. **Contract award veto.** In some countries, government has an opportunity to veto the contract award on the basis of insufficient local content and/or inadequate local content plan. This is rather controversial policy because it is rather subjective and it would be hard to determine whether veto was exercised with due regard to the principle of award on an internationally competitive basis or not.

#### *LCP Pass-Through*

63. **Extent of policy pass-through also merits significant attention on the part of regulators.** While the oil companies used to have capacity and carried out most of the steps in the value chain, they have over the years constantly redefined and narrowed their core competence. Today their core competence is often restricted to the exploration process combined with the ability to manage risk and raise financing. The consequence of this strategic shift has been massive outsourcing from the oil companies to the service providers and contractors. The oil companies now have numerous suppliers with contracts frequently organized as a hierarchy of subcontractors, or a supply chain. This development has a large impact on national content issues and how this topic can be approached. Attention for local content development now needs to be directed towards suppliers in the bottom of supply chain. Governments, however, only interact with them indirectly through the IOCs. Thus, it is important to assure that the IOCs have the ultimate responsibility for national content efforts all through their supply chains.

64. **In the IOCs procurement is a specialized function generally managed by a central unit at the headquarters (corporate office).** This unit makes decisions for larger and global contracts for the whole corporation. Local offices in single oil producing countries have a limited say. This forms a major barrier for domestic companies with ambitions to compete, as they are

unable to gain any access to the central unit. In general, a domestic company will have to link into one of the supply chains to be able to be a part of the global supply contracts.

65. **In frontier countries, with a few exceptions, the setting of targets for sourcing local goods and services and the use of margins of domestic preference are aimed primarily at transactions between the operating company and their direct suppliers and contractors.** In more mature petroleum settings, local content targets, and margins of preference are cascaded to lower tiers of suppliers (see **Box 3** below). We note that although these targets are set in policy, they are necessarily implemented effectively.

**Box 3. Kazakhstan’s Policy Pass-Through<sup>17</sup>**

The recently mandated formulae for reporting local content in Kazakhstan illustrates a policy of driving local content regulations down through supply chains. The Republic of Kazakhstan Decree 964/2010 mandates a unified method for calculating local content in the procurement of goods, works, and services. The formula requires the measurement of the proportion of Kazakh labor and goods in both first- and lower-tier subcontracts and suppliers. The method involves tracking both the level of local content delivered by the primary contract holder through its direct suppliers and contractors, as well as the local content delivered by the first-tier contractors and suppliers in fulfillment of the contract. For each of these first- and lower-tier tranches of the original contract, the foreign component of labor or goods is deducted. The local content figure is then the total of the residual local value of each tranche, presented as a proportion of the original contract sum. A similar approach is taken to driving LCP in supply chains in Brazil.

66. **The choice of metric for measurement of local content has a strong bearing on the implementation outcomes of a policy on local sourcing.** For example, if the metric for setting targets for local content in the purchase of equipment is based on whether the supplier is owned by national citizens, the policy will drive national ownership, and the outcome will be wealth creation for (some) national citizens. On the other hand, if the metric is defined as a combination of different economic empowerment indicators, including (1) the number of nationals employed by the supplier, (2) the number of nationals in management positions, (3) the value-added to the product in-country, and (4) ownership, then achieving higher levels of local content (assuming the weightings of these different indicators in any tender evaluation are evenly balanced) would have a broader economic impact. It is also important to avoid imposing high administrative and compliance costs. Complex LCPs may make it difficult for policy makers to monitor their implementation, assess their impact, and enforce their application. Especially for small businesses, assimilating and complying with complex administrative and technical rules can create an unreasonable burden.

*LCPs and International Regulations*

67. **Local content measures are governed by two sets of the World Trade Organization (WTO) agreements.** These include the following: (i) local content requirement for the acquisition of goods which are covered by the General Agreement on Tariffs and Trade (GATT) and Trade

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<sup>17</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

Related Investment Measures (TRIMs) agreements<sup>18</sup>; and (ii) measures related to the sourcing of services which fall under the scope of the General Agreement on Trade in Services (GATS). Moreover, there are relevant provisions of the Subsidies Agreement depending on the type of subsidies that countries' provide which are relevant.

68. **The TRIMs Agreement, introduced during the Uruguay Round, pertains to measures related to goods.** The agreement on TRIMs banned the imposition of 'performance requirements' – a hallmark of industrial policy between the 1960s and early 1980s. TRIMs apply to all WTO members, and prohibit local content requirements that mandate particular levels of local purchases by an enterprise. The TRIMs agreement allowed for transitional arrangements to maintain certain (protectionist) measures for a limited time following a country's entry into the WTO. The grace period initially was two years in the case of developed countries, five years for developing countries, and seven years for least-developed countries (LDCs). The disciplines of Annex 7 of the Hong Kong ministerial declaration modified the transitional periods for LDCs. This declaration is directly relevant to the case of Uganda and de facto implies that LDCs may maintain and adopt local content measures related to goods until 2020. As such, Uganda would be able to maintain its local content measures related to goods for a number of years without violating international agreements.

69. **Part III of the GATS contains provisions on access to WTO members' markets by foreign suppliers.** It is important to note that market access and national treatment disciplines are not of a general application, but apply only on the sectors where the WTO member has undertaken specific commitments<sup>19</sup>. This is particular relevant in the case of Uganda, which has undertaken commitments for market access and national treatment only on telecoms, hotels and restaurant services, and travel agencies. This means that Uganda remains free to provide for preferential (discriminatory) conditions for its own services and services providers in all other sectors, including oil and gas.

#### *LCPs and Development of Local Industries*

70. **LCPs can help to develop industrial clusters and regional trade synergies.** Collaboration and interaction among IOCs, integrated service providers, national oil companies and local suppliers and service providers are critical to the sustainable development of a local industrial capacity. Geographical and sectoral clusters have been used by some governments as a means to accelerate the development of local enterprises, as well as to strengthen the national system of innovation. Some countries have taken the concept of clusters beyond the domestic market, by supporting the development of regional trade synergies through regional hubs and the integration of LCPs at the regional level, with the objective to help provide the scale to the economy necessary to sustain local comparative advantages. The example of Malaysia in **Box 4** below shows what actions are currently being taken by this country to become a regional hub for the oil field services and equipment.

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<sup>18</sup> The TRIMs are a codification of Articles III and XI of the GATT

<sup>19</sup> In the sectors where special commitments were undertaken, all WTO members should accord services and service providers from other WTO member countries and show them treatment no less favorable than that provided for under the common terms, limitations, and conditions mutually agreed among WTO members



#### Box 4. Development of Local Industrial Capacity

##### MALAYSIA OIL FIELD SERVICES AND EQUIPMENT REGIONAL HUB CREATION STRATEGIES<sup>20</sup>

LCPs in the oil and gas sector are an integral part of Malaysia's economic transformation plan. In its *2010 Economic Transformation Program*, the government of Malaysia laid out a comprehensive package of measures to transform the nation into a regional hub for the oil field services and equipment (OFSE) industry<sup>21</sup>. The Asian market for OFSE has grown by 20 percent a year over the last decade and the sector outlook remains bright. The regional market for OFSE is fragmented, with players setting up operators in Malaysia, Indonesia, Singapore and Vietnam, unlike Europe and the North America, where OFSE operators concentrate their activities in a few centers (Aberdeen, Stavanger and Houston). This creates an opportunity for Malaysia, which has a competitive domestic workforce, technically challenging domestic reserves that drive a growing local demand for OFSE, and geographical proximity to resource-rich countries in Asia and the Middle East.

To capitalize on these advantages, the government has set out a strategy of complementary LCPs to incentivize the rationalization of local fabricators and the establishment of joint ventures with OFSE MNCs in critical value-adding activities. The objective is for Malaysia to become a regional hub in 2017. Some of the entry point projects (EPPs) identified by Malaysian government to achieve this objective include:

**- Attracting MNCs to Bring a Sizeable Share of Their Global Operations to Malaysia.** Malaysia aims to attract 10 to 20 major international companies in the OFSE industry to bring approximately 10 percent of their business operations to the country. If this aspiration is achieved it will have considerable impact creating over 20,000 jobs. A Government body called Oil Field Services Unit was set up to oversee industry growth and development.

**- Consolidating Domestic Fabricators.** Domestic fabricators in Malaysia lack scale and are not cost-competitive. For example, domestic companies often hire large cranes for operation in large projects because their limited size precludes purchasing them. Major regional players by contrast directly own such cranes and are better able to operate more efficiently and cheaply as a result. Consolidation of major offshore structure fabricators in Malaysia to match the scale and efficiency of major regional players would translate to the creation of 5,000 jobs. Consolidating the many companies operating within the industry would require PETRONAS to award licenses to only a limited number of domestic fabricators.

**- Developing Capabilities and Capacity through Strategic Partnerships and Joint Ventures.** At present there are considerable gaps in the domestic OFSE industry, with Malaysian companies lacking capabilities and experience particularly in engineering and installation, limiting their ability to gain a strong share in the regional market. This activity aims to incentivize domestic companies to form joint ventures with world class companies to build their capabilities and track records. Malaysia's ambition is to gain 15 percent of the shallow water and 50 percent of the

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<sup>20</sup> Economic Transformation Program. A Roadmap for Malaysia. Chapter 6: Powering the Malaysia Economy with Oil, Gas and Energy. 2010

<sup>21</sup> OFSE sector includes land drilling services, offshore drilling services, geophysical services, operations and maintenance and other services. Some of the players include Schlumberger, Abbot Group, and Baker Hughes.

deepwater market in Asia Pacific (of which the vast majority are found in Malaysian waters) by 2020. Achieving this would mean creation of some 15,000 jobs.

Since the policy goal envisaged for the petroleum sector is to transform Malaysia into a regional hub for OFSE, a strict measure of local content levels in the OFSE sector would fall short of the government's objective. Instead, the following three performance indicators are monitored: (1) the amount of investment made by OFSE multinationals; (2) the number of successful merger of fabricators; and (3) the number of JVs between multinationals and local OFSE companies. This policy represents a change compared to earlier approaches in Malaysia whereby regulation focused on maximizing local content levels and not so much on value addition, competitive advantage and sustainable growth<sup>22</sup>. It appears that a combination of measures building the capacity of local suppliers and attracting FDI represents a receipt for success.

Since inception of the program, there were a number of important achievements. Consolidation among domestic fabricators has been successful after two years, with the establishment of three sizeable Malaysian EPC entities from eight small and medium-sized fabricators. Malaysia will now focus on helping these companies to take on the global stage. Aberdeen Drilling School has set up a learning center in Malaysia to provide customized training in drilling practices and technology, cost reduction/unscheduled events prevention, safety, communication and leadership. Aberdeen's long-term plan is to use Malaysia as a base for its regional expansion. Several local companies have inked JVs with foreign specialists, giving them access to technology and gaining experience that better positions them for future jobs and new markets. To attract more foreign MNCs, plans are underway to present Malaysian OFSE companies at international conferences such as Offshore Europe and the World Gas Conference<sup>23</sup>.

### **CHINA DEEP SEA FIELD DEVELOPMENT KNOW-HOW<sup>24</sup>**

In the past, China offered foreign companies the right to explore in the South China Sea as it lacked equipment and skills to do this. It however insisted that if projects went into commercial development, then CNOOC – China's main offshore company- would take a majority stake. China is now able to handle a lot of exploration activities on its own as it acquired significant know-how during the development of a deep-sea gas field off Hong Kong, Liwan (in which CNOOC owns 51 percent), working closely with Canada-based and Hong-Kong owned Husky Energy. Some of the world's most technically advanced deep-water companies were also employed in the project, including Seadrill Ltd. and Saipem SpA, further contributing to knowledge transfer to China. During the development of Liwan China has also tried some of its locally manufactured equipment. The Chinese-built deep-water rig was put into work in developing this field. It is designed to operate at depths as much as 10 kilometers in the seabed, while withstanding typhoons that ravage the South China Sea. A Chinese-built vessel for laying deep-water pipes was also tried at Liwan. The vessel built by China Rongsheng Heavy Industries is able to operate at depths of 3,000 meters and lay five kilometers of subsea pipeline a day.

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<sup>22</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

<sup>23</sup> Economic Transformation Program. Annual Report. 2013

<sup>24</sup> China Ready to Drill Deep on Its Own. Wall Street Journal. May 13, 2013

In part because of the know-how acquired as part of the project, CNOOC now can carry out its own seismic surveys to find hydrocarbon-rich deposits, drill wells to confirm their presence and economic viability, and lay subsea pipelines needed to extract oil and gas.

CNOOC gained additional offshore-drilling expertise with its \$15 billion purchase of Canada's Nexen Inc. in 2012. In addition to the large oil fields in the North Sea owned by Nexen the purchase also gave CNOOC access to deep-water skills used by Nexen in the Gulf of Mexico.

### *Local Content Development Programs*

71. **While LCPs can mandate certain levels of local content in goods, services and employment, they can only achieve limited economic impact if capacity of the local private sector is inadequate.** It is critical for the policy-makers to facilitate the development of competitive, capable, and sustainable local skills and supply industries, rather than simply drive an increased share of local content in total expenditure, regardless of its competitiveness and long-term sustainability. A number of countries established comprehensive local content development programs through the creation of enterprises development centers and some other initiatives. **Annex 4** presents a detailed analysis of enterprises development centers in Angola, Ghana, Chad, and Azerbaijan. **Table 5** summarizes the experiences of these centers. Some of the programs/initiatives undertaken by the centers in these countries included:

- Comprehensive local supplier survey, suppliers' ranking according to the level of competency and creation of a supplier database;
- Communication and training of local suppliers on relevant standards (HSE etc.)
- Training of local suppliers on overall business skills and preparation of bids
- Business incubation
- Promotion of collaboration between SMEs
- Introduction of an e-procurement system and training of local suppliers to use it
- Provision of information on the pipeline of bidding opportunities
- Assistance with access to finance and identification of JV partners.

72. **Provision of financing is one of the key elements of the supplier development programs.** No matter how good the skills of the suppliers are, they will not be able to win and deliver on contracts with the IOCs unless they have access to working and investment capital.

**Table 5. Summary of Enterprise Centers' Features in Select Countries**

Country	Name/Year	Partners	WBG Role	Features of the program	Achievements
ANGOLA	<b>Centro de Apoio Empresarial (CAE), 2005</b>	Sonangol, British Petroleum, Exxon Mobil, Total, and Chevron	NO	<ul style="list-style-type: none"> <li>• SMEs assisted with financial analysis, preparation of bids, and training on specific elements of provision of goods and services to the oil industry</li> <li>• A company directory created including certified local companies and an assessment of their capacity</li> <li>• Assistance with access to finance</li> </ul>	<ul style="list-style-type: none"> <li>• The project generated 4,809 jobs; certified 100+ companies in various sectors; and delivered over 224 business training courses.</li> <li>• Participant SMEs won 300+ contracts</li> <li>• Database established with 1400+ SMEs</li> <li>• CAE became an organ of Chamber of Commerce of Angola in 2011</li> </ul>
CHAD	<b>Enterprise Center, 2004</b>	The program was implemented by the IFC, in association with ExxonMobil and the Chamber of Commerce of Chad	YES	<ul style="list-style-type: none"> <li>• A comprehensive survey of local SMEs conducted; SMEs evaluated according to their level of competency and given a rating.</li> <li>• Public workshops provided SMEs with access to information on the pipeline of bidding opportunities and standards required.</li> <li>• eProcurement system introduced and SMEs trained in using it.</li> <li>• SMEs provided with access to computer/ Internet.</li> <li>• Programs to improve access to finance for SMEs</li> </ul>	<ul style="list-style-type: none"> <li>• Number of local suppliers considered by ExxonMobil went up from 17 to 1,300 SMEs</li> <li>• Applications per bid in Chad increased five-fold, from 5 to 25 SMEs.</li> <li>• As of 2009, 102 local firms were assisted in bidding. 30 contracts worth over \$56 million have been awarded. In 2012, purchases of goods and services from local suppliers totaled \$175 million</li> <li>• The Chad Enterprise Center became an integral unit of the Chamber of Commerce in 2010</li> </ul>
GHANA	<b>Enterprise Development Center, 2013</b>	Government of Ghana's initiative in collaboration with the Jubilee Partners;  Enablis Ghana appointed to establish the center	NO	<ul style="list-style-type: none"> <li>• Identification of opportunities and facilitating the development of local SMEs for their participation in the oil and gas sector.</li> <li>• Communication of required standards.</li> <li>• Promotion of collaboration among SMEs.</li> <li>• Training and development; business incubation, and consultancy services to SMEs</li> </ul>	The center was only recently launched and results are not yet available
AZERBAIJAN	<b>Enterprise Center, 2002-2008</b>	BP and its partners	YES <sup>25</sup>	<ul style="list-style-type: none"> <li>• Training at no cost for local SMEs on HSE policies, tender process; technical requirements of oil and gas operators; identification of foreign partners.</li> <li>• Seminars "How to do Business with Oil Companies"</li> </ul>	<ul style="list-style-type: none"> <li>• 1000 companies registered with supplier database and participated in development activities;</li> <li>• 93 companies successfully graduated from the program;</li> <li>• 360 gap analysis and tailored development plans produced</li> </ul>

<sup>25</sup> IFC did not play a role in establishing the Enterprise Center, but actively participated in local supplier development programs in partnership with the Enterprise Center, IOCs and other donors and the private sector

**73. Some countries designed specialized programs to provide financing for oil and gas suppliers, especially SMEs.** As demonstrated in **Annex 4**, different models were applied in different countries. In Angola, Zimbo Fund was established by Total and Angolan Bank Banco Totta to provide partial credit risk guarantees to SMEs. In Azerbaijan, supplier finance credit facility of US\$15 million was funded by the IFC, British Petroleum (BP) and Micro Finance Bank of Azerbaijan to provide financing to small and medium sized contractors to BP and its affiliates. In Nigeria, a lot of financing comes from local banks (see **Box 5**). In Brazil, a robust program has been designed to alleviate access to finance constraints for oil and gas suppliers (**Box 6**).

#### **Box 5. Financing of the Oil Projects by Nigerian Banks**

*First Bank of Nigeria Plc.* provided over \$3.3 billion for financing of various oil and gas projects in Nigeria in 2012. This financing package, which represents 37.40 percent of the bank's portfolio, represents the bank's total financing activities for the upstream, midstream and downstream sub-sectors of the oil and gas industry. The provided financing is in line with the bank's efforts to boost local capacity in the oil and gas sector. US\$ 650 million has been committed for the development of selected marginal field operations, while US\$ 270 million was expended for offshore pipeline projects and US\$ 234 million - as local contract support for specialized vessel acquisition scheme. First Bank is widely acknowledged as the leading player in oil and gas financing.<sup>26</sup> The bank is committed to growing its involvement in the oil and gas industry and assisting particularly indigenous firms in taking full advantage of the opportunities in the industry in line with the Nigerian local content act. Some of the products currently offered by the bank to serve the oil industry include project finance facility; bond/guarantee lines (performance bonds etc.); invoice discounting financing; term loans/working capital financing.

*Access Bank* has also supported a large number of activities of the mid-stream operators, oil service operators and EPC contractors. *Diamond Bank Plc.* has also put together about US\$ 1 billion for the funding of oil and gas projects in Nigeria<sup>27</sup>. Among other things, Diamond Bank was the sole financier of one of the newly acquired dive support vessels worth over US\$ 30 million, acquired by CNS Marine Nigeria Limited in Lagos. The bank undertook to finance the project due to its support for Nigeria local content initiative, aimed at deepening indigenous participation in the nation's oil and gas industry.

Financing provided for the acquisition of vessels is a major milestone for the Nigerian content initiative. Nigerian economy lost over US\$ 100 billion in five decades to foreign owned vessels that have been lifting crude oil from the country. Financing provided by local banks greatly helps to reverse this trend and boost the local economy. Other areas where the Local Content Act is already spurring increased Nigerian participation are boat building and ship repair, coastal trade under the Cabotage regime, insurance, banking and legal services. The fact that banks in Nigeria provide a lot of financing for the oil sector is not surprising given the might of the financial system in the country. 13 Nigerian banks are among the world's top 1000 banks, confirming the country as the leading financial center in Africa, according to 2014 edition of the Banker Magazine of the Financial Times Group. Overall, Africa has 31 banks in the top 1000 world banks in 2014, with Nigeria's 13 slots representing 42%.

<sup>26</sup> First Bank Stakes \$3.3 billion on Oil and Gas Projects. Nigeria NewsDay, May 10, 2013

<sup>27</sup> Diamond Bank commits N150bn to oil, gas financing. Punch. September 1, 2013

### Box 6. Financing of Oil Projects in Brazil<sup>28</sup>

To support the local industry development, the Brazilian Government through the Brazil National Bank for Social and Economic Development (BNDES) and Petrobras offer several funding sources. “Brasil Major Plan” was launched in 2011 by the Brazilian Government with approximately US\$ 70 billion in credit for investment. BNDES provides a number of funding options:

- **BNDES O&G Structuring.** A credit line, originated in the “Brasil Major Plan” aims to create and expand the productive capacity of suppliers of goods and services related to oil and gas, to support mergers and acquisitions of companies, upgrading of businesses, technological investments etc.
- **BNDES – Investment Support Program.** A credit line is aimed to stimulate production, acquisition and export of capital goods and technological innovations.
- **BNDES FINEM.** A credit line to support projects of development and production of oil fields and installation, expansion and modernization of refineries.
- **BNDES Proengenharia.** This line supports engineering projects in a number of sectors, such as defense, automotive, oil & gas, chemical, petrochemical.
- **FINAME Program.** Supports financing of parts and components, including electronic, locally manufactured, provided by manufacturers registered with the BNDES, for incorporation in machinery and equipment in production stage.
- **Progressive Nationalization Plan (PNP).** Funding is provided to manufacturers of products with reduced local content. Products can be submitted to the PNP if they present minimum local content percentage (40%) with commitment to reach 60% within 3 years.

Another important initiative, **Progredir Financing Program**, allows companies within the Petrobras supply chain and its subsidiaries to obtain loans from accredited banks using supply contracts signed with Petrobras as guarantees. The program was created in partnership with the six largest retail banks in Brazil (Banco do Brasil, Bradesco, Caixa Econômica Federal, Itaú, HSBC, and Santander) and with the National Oil and Natural Gas Industry Mobilization Program (Prominp). The program was officially launched in 2011 after completing a pilot phase. It primarily targets SMEs. In the first 18 months of operation, loans worth \$1.9 billion were extended to 404 businesses. In order to improve financial and risk conditions, Petrobras is the anchor of Progredir and transfers its better credit perception in the market to participants. Requests for funding are submitted through the Progredir Gateway to all of the participating banks, implying an increase in competition between the banks. Progredir Portal stores information on supply contracts, financing and individual performance data on each supplier, allowing the banks access to supplier track record data. Implementation of this innovative program had the effect of reducing the financial costs for the supplier by 20%- 50%.

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<sup>28</sup> The Brazilian Oil and Gas Industry. PricewaterhouseCoopers Brazil Ltda. 2013

#### 1.4. OBSERVATIONS AND RECOMMENDATIONS

74. **A number of lessons can be learned by Uganda from the examples presented in this chapter and other available models.** There is no blueprint for the LCP (as well as industrial policy in general) and these policies are very much tailored to a particular country. Nevertheless, there are many lessons learned from experiences of other countries which can be leveraged.

75. **This chapter shows that many countries developed and adopted LCPs.** They involve setting of local content targets, specify a margin of preference to domestic suppliers and/or adjust the process of contract award and execution to benefit local suppliers. It is important to remember that these policies will be beneficial for the economy if targets/preferences are set in line with domestic capacity and are temporary in nature. Otherwise, they can lead to support of unproductive practices and increase costs of the development of the industry. As such, if decision is made to use these instruments in Uganda, they need to be used with caution and be backed by solid analysis. It is also important to make sure that policies pass through to the bottom of the supply chain to ensure that the smallest contractors are able to benefit from these policies.

76. **In terms of international regulations, at this time, Uganda is not expected to breach such international agreements as GATT and GATS by applying local content policies.** For goods, local content policies can be applied by Uganda until 2020 in line with the WTO Hong Kong Ministerial declaration. For services, no special commitments for market access and national treatment were undertaken by the country in relevant sectors and therefore Uganda can apply preferential conditions for its own services and services providers in all other sectors.

77. **A number of countries have used their LCPs to help develop industrial clusters and regional trade synergies.** Example of Malaysia in this chapter demonstrated how this country identified the area where it wanted to excel (OFSE) and made a decision to become a region hub in OFSE. Becoming a regional hub in some area of oil and gas E&P could be a very promising strategy for Uganda, given that there is a lot of exploration activity taking place in Africa and there will be a lot of need for oil and gas related services. Attraction of foreign firms to set up operations in Uganda would be an essential first step, and know-how could be transferred to the country gradually. The key for Uganda would be to pick the right industry to focus on and develop a strategy in accomplishing the goals.

78. **Comprehensive local content development programs have been established in many countries to facilitate participation of local suppliers in the oil and gas sector.** Enterprise centers were established in such countries as Ghana, Angola, Azerbaijan, Chand, and others. As the result of some of these programs, a lot of suppliers in these countries got a chance to participate in this emerging industry and grow their business.

79. **It would be highly beneficial for Uganda to establish an enterprise development center to build the capacity of local enterprises and enable them to be more competitive when bidding for contracts with the IOCs which require goods and services to meet high international standards.** If set up and managed appropriately, such a center would greatly benefit Uganda's local private sector seeking to participate in the opportunities offered by the oil and gas sector.

80. **Due to the importance of Kampala for national economy, the center would need to be established there.** At the same time, one or several smaller satellite centers could be set up in the Albertine region where the oil fields are being developed to facilitate the inclusion of local suppliers in the supply chain of the IOCs. After the demand of the oil and gas sector goes down, the enterprise development center could continue building capacity of suppliers serving other industries of the economy.

81. **Besides building the capacity of local suppliers, many countries have also provided assistance with access to finance.** IOCs, local financial institutions, and international donors have played a key role in establishing such programs. It would be important for Uganda to also provide support to local oil and gas suppliers with access to working and investment capital for them to be able to participate in the opportunities offered by this industry.



## Chapter 2. NATIONAL CONTENT DEVELOPMENT IN UGANDA

### 2.1.UGANDA OIL DISCOVERY CONTEXT

82. **Uganda’s longstanding prudent macroeconomic stance and consistent market-oriented policy reforms have delivered strong performance during the recent years, but fell short of Uganda’s aspiration to catch up with the middle-income countries.** Although annual growth was averaging 7.0 percent during the 2000s, it resulted only in modest per capita income gains due to fast population growth. With a per capita gross national income (GNI), Atlas method, of US\$440 (2012), Uganda continues to be classified among the poorest countries in the world. Uganda also exhibits increasing inequalities resulting largely from uneven spatial development. Much of Uganda’s structural transformation and rising productivity in market-oriented agriculture has been spatially concentrated in the South, Central, and Western regions, while the Northern region, affected by protracted conflicts for many years, has lagged behind.

83. **Uganda discovered commercial oil reserves, estimated at more than 6.5 billion barrels (out of which 1.4 billion is commercially recoverable), in the Lake Albertine Rift basin in 2006<sup>29</sup>.** Additional gas is also expected to be produced as associated gas when production of oil commences. So far the estimates of associated gas based on the oil gas ratios for the different fields in the Albertine Graben is 173 billion cubic feet of gas.

84. **Three IOCs in the process of developing the oil fields include a Chinese state-owned company China National Offshore Oil Corporation (“CNOOC”), U.K.-based Tullow Oil and France’s Total.** Total entered Uganda’s oil industry early in 2013 after it signed onto a joint venture with CNOOC and took up a third each of Tullow’s exploration assets in the country.

85. **The three IOCs are partners, each with a third interest in all the three areas.** There are currently five distinct discovery areas, some of which are offshore and others are onshore, as depicted in **Annex 2**. Total is the operator for two discovery areas in the northern tip of Lake Albert (Lyc and Paara, combined area over 600 sq. km); Tullow is the operator for two other areas (one in the northern tip, Buliisa, and one in the middle of Lake Albert, Kaiso-Tonya, with combined area of over 1,500 sq. km), while CNOOC operates one area in the southern tip of Lake Albert, Kingfisher (344 sq. km). By the end of 2013, total number of wells drilled was 115, out of which 101 had hydrocarbons, signifying an 85 percent success rate. By the end of 2013, oil companies had invested up to US\$2.3 billion and PEPD projections indicate that by the end of this year they would have invested up to US\$3 billion in exploration, development and production<sup>30</sup>.

86. **CNOOC obtained a production license to develop the Kingfisher field over a period of four years.** The license is for 25 years and can be renewed. Production would be achieved by

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<sup>29</sup> According to PEPD, the estimates were originally 3.5 billion barrels in place, of which 1.2 billion barrels were recoverable. Following the appraisal work undertaken on each of the discoveries, which led to an improved understanding of the nature of the petroleum reservoirs in Uganda, the estimates of oil reserves were revised upward, while there was a reduction in the ratio between the oil in place and recoverable oil. Improved technology such as the use of gas injection, steam flooding and injection, polymer flooding and microbial injection have the potential to increase the recovery factor

<sup>30</sup> Government to Announce Oil Refinery Investor. Daily Monitor. February 25, 2014

drilling 40 development wells, of which 27 would be producers and 13 would be injection wells. Production is expected to start in 2017 and the field will have an initial capacity to produce between 30,000 to 40,000 barrels of oil per day.<sup>31</sup> The Kingfisher field is estimated to hold 635 million barrels of oil, of which 196 million are recoverable. The recovery rate will be about 31 percent, slightly above the internationally known 30 percent<sup>32</sup>. CNOOC has started drilling and 3 wells have already been drilled as of March, 2014<sup>33</sup>. The company is expected to drill most of the 40 wells in the first 10 years of the field life. The on-site construction will start after necessary conditions are met, including the social and environmental impact assessment.

87. **Tullow and Total are currently in the appraisal stage of oil exploration and production cycle.** They have submitted a number of production license applications together with respective field development plans (FDPs) and petroleum reservoir reports to the Ministry of Energy and Mineral Development as per agreed upon schedule. The submission of production licenses by the IOCs is taking place according to an agreed upon schedule. Please see **Table 6** below with information on the status of production licenses.

**Table 6: Status of Production Licenses by Operator<sup>34</sup>**

Operator	Discovery Area	Discovery	Production License Application Status
TULLOW	Kaiso-Tonya	Mputa	Submitted to PEPD
		Nzizi	Submitted to PEPD
		Ngassa <sup>35</sup>	Written off due to offshore appraisal and development being uneconomic
		Waraga	Under preparation- to be submitted in 2014
	Buliisa	Kigogole	Submitted to PEPD
		Nsoga	Submitted to PEPD
		Ngara	Submitted to PEPD
		Ngege	Submitted to PEPD
		Kasamene	Submitted to PEPD
		Wahrindi	Submitted to PEPD
TOTAL	Lyec	Lyec	Under preparation
	Paara (located in Murchison Falls National Park)	Ngiri	Submitted to PEPD
		Jobi	Submitted to PEPD
		Rii	Submitted to PEPD
		Jobi-East	Under preparation
		Mpuyo	Under preparation
		Gunya	Under preparation
CNOOC	Kingfisher	Kingfisher	Granted by PEPD

<sup>31</sup> China's CNOOC wins \$2bn Uganda oil field contract. BBC News, September 26, 2013

<sup>32</sup> Uganda issues first ever oil production license to CNOOC. CCTV News, September 26, 2013

<sup>33</sup> CNOOC drills oil wells for production. New Vision Uganda. March 21, 2014

<sup>34</sup> Tullow Sees Bright Future Despite Tough 2013. The Weekly Observer (Uganda), February 19, 2014

<sup>35</sup> Ngassa, along with other non-commercial fields (such as Turaco, Karuka, and Taitai), has again become property of the Government. The GoU is free to license the relinquished areas to other players during the new licensing round

88. **An announcement for the new licensing round is planned for the beginning of 2015.** The government possesses good data on the discoveries which can be used for promotion and negotiation during the new licensing rounds.

#### *Oil Industry Infrastructure*

89. **On February 5, 2014 the GoU and the IOCs signed a Memorandum of Understanding (MOU) for the development of oil resources in the country.** As negotiations took a rather long time, their successful conclusion represents a very positive step forward and will help to increase the pace at which the country's oil resources will be developed. The comprehensive plan agreed upon includes the use of the gas resources for power generation, supply of crude oil to the refinery to be developed within Uganda and the export of crude oil through an export pipeline constructed by the oil companies. According to Total, this will be a US\$10-15 billion project, one of the largest in East Africa. The costs of the crude export pipeline alone are estimated in the range of US\$3-4 billion<sup>36</sup>. Following the signing of the MOU, a detailed implementation plan will be developed between the GoU and the IOCs.

##### (a) Refinery and its infrastructure

90. **The GoU has made a decision to construct a domestic oil refinery following an East African Community (EAC) study which recommended that another refinery is needed in the region and most preferably needs to be built in Uganda.** EAC already has one refinery located at the Kenyan seaport of Mombasa. Kenyan refinery is run by India's Essar Energy and the Kenyan government and serves Uganda, Rwanda, Burundi, Tanzania and DRC. The decision to build a refinery has been informed by statistics that indicate the regional consumption currently stands at over 200,000 barrels of oil per day and growing at five per cent per annum. The Kenyan refinery only produces 35,000 barrels per day and can only reach 70,000 after an upgrade. The feasibility study which determined that refinery was the best option for Uganda was conducted by Foster Wheeler Energy Limited UK. Uganda's oil refinery is expected become operational by 2017/18<sup>37</sup>.

91. **Products to be produced by the refinery include diesel, petrol, kerosene, jet fuel, liquefied petroleum gas, and heavy fuel oil.** The refinery will originally have the capacity to process 30,000 barrels of oil a day which will be increased to 60,000 barrels per day before 2020, much less than the government had initially planned. The government has hired U.S.-based investment firm, Taylor-DeJongh which is providing advisory services on the selection of a lead investor for the refinery, the sourcing of financing, crude and product pipelines terminal, as well as the formation of a refining company. The refinery shall have the right of first call on production volumes from the licensed areas.

92. **The refinery will be located in Hoima district, some 130 miles west of the capital Kampala.** Over 29 square kilometers of land were already earmarked for the construction of the refinery, with the rest of the land to be used for infrastructure like an airport, petro chemical industries, waste management facilities and houses for the refinery workers. The GoU intends to construct Hoima International Commercial Airport before construction of the refinery begins. The

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<sup>36</sup> For investment in oil and gas, EA's potential remains largely untapped. The East African. February 22, 2014

<sup>37</sup> 50 Global Firms Target Uganda's Oil Refinery. New Vision. November 12, 2013

airport is urgently needed to deliver construction equipment for the refinery, which is too delicate to be transported by road. The UN's international Civil Aviation Authority (CAA) has been contracted to procure a consultancy firm to draw the masterplan for the proposed airport<sup>38</sup>. The GoU also has plans to construct an ammonia fertilizer plant, which will be the first of a kind in the region<sup>39</sup>.

93. **The Uganda refinery will be constructed on a public private partnership arrangement where government would own 40 percent of the refinery and the other 60 percent would belong to the private sector.** The GoU has invited the East African countries to buy interests in the 40 percent public stake. The Request for Qualification for international firms to build and operate the proposed oil refinery and related pipelines and infrastructure was launched on October 8, 2013, and attracted responses from 75 firms. Five consortia and one independent firm were shortlisted to submit their detailed tender bids.<sup>40</sup> Four shortlisted firms/consortia submitted detailed proposals to the GoU, later final two contenders emerged, and the winning bidder, Russia's RT- Global Resources, was selected in February, 2015 by an evaluation team comprising of representatives from the GoU and Transaction Advisor TaylorDeJongh.

94. **Oil sector infrastructure needed to feed the refinery will include the following:**

- **Internal crude oil pipelines.** These are the 97-kilometre northern pipeline from Nwoya and Buliisa oil fields, the 50-kilometre pipeline from Kingfisher [Buhuka, Kyangwali sub-county], Hoima district and another pipeline from Kaiso-Tonya. The construction and development of these crude pipelines will be facilitated by the oil companies.
- **Three central processing facilities (CPFs).** The CPF is where these impurities are removed from the oil. CPFs will be set up in Buliisa for the northern fields, at Kaiso-Tonya, and near the Kingfisher field.
- **Storage Facility.** Before the process of refining starts, the country will have to also first construct a storage facility in Buloba, off Mityana road, in Wakiso district. Once production starts, any excess crude can be stored at Buloba. During periods when there is no refining, crude can be stored at Buloba. Construction of a 205-kilometre pipeline from Hoima to Buloba is expected.

(b) Export pipeline

95. **Three main proposals have been considered for the construction of the crude oil export pipeline (see Figure 3).** There has been an indication that the Northern route (Hoima-Lokichar-Lamu, 1,380 km) was preferred but no official announcement has been made yet. Uganda and Kenya recently signed an agreement with a Japanese company to undertake the feasibility study for the export pipeline. The feasibility study will provide the best option for the transportation of the crude and the most cost-effective route, as well as recommendations in terms of ownership and management.

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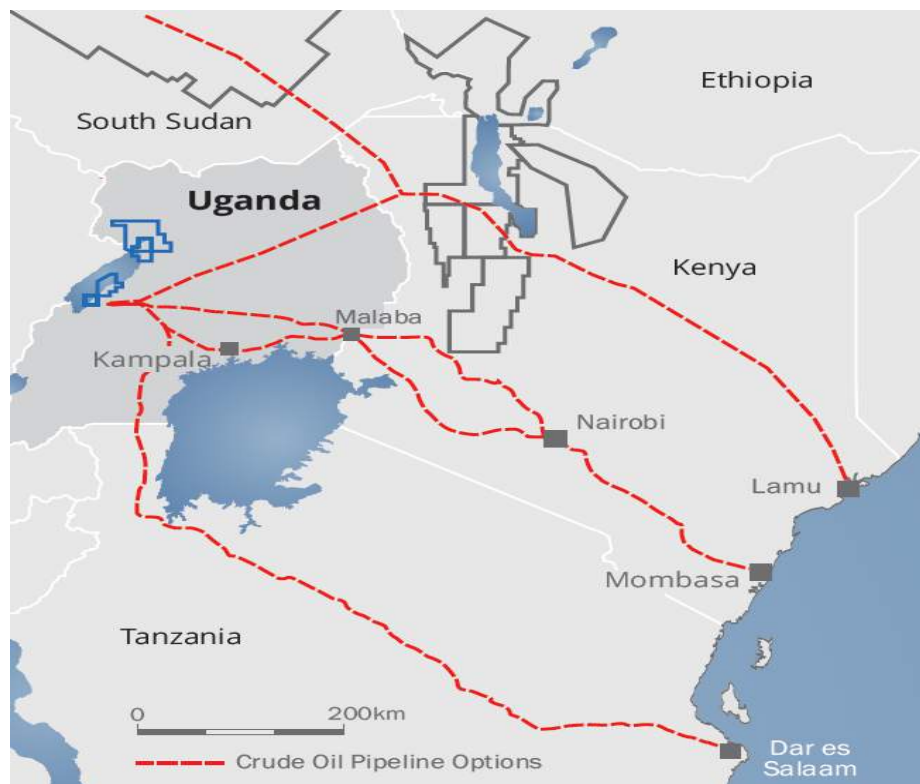
<sup>38</sup> UN agency to advise on Hoima airport Master Plan. New Vision (Uganda). September 8, 2014

<sup>39</sup> Oil Producers to Set up an Ammonia Fertiliser Plant. Daily Monitor (Uganda). June 13, 2014

<sup>40</sup> Six Companies to Inspect Oil Wells. New Vision Uganda. March 14, 2014

96. **In case if the decision is indeed made to select the Northern route, the arrangements will be as follows.** The pipeline will run from Hoima via Karamoja-Lokichar basin in Turkana to Lamu with a possibility of linking at Lokichar with another crude pipeline from South Sudan. This pipeline would involve the setting up of a storage facility at Lokichar. Each country will build the portion of the pipeline on its territory. A single transaction advisor will be appointed but each country has an option of choosing its own financing agreement<sup>41</sup>. Kenya is to construct the pipeline from Lokichar basin while Uganda is expected to construct its part of the pipeline from the Lake Albert rift basin to link up with the Kenyan pipeline and another from South Sudan to Lamu.

**Figure 3. Pipeline Routes<sup>42</sup>**

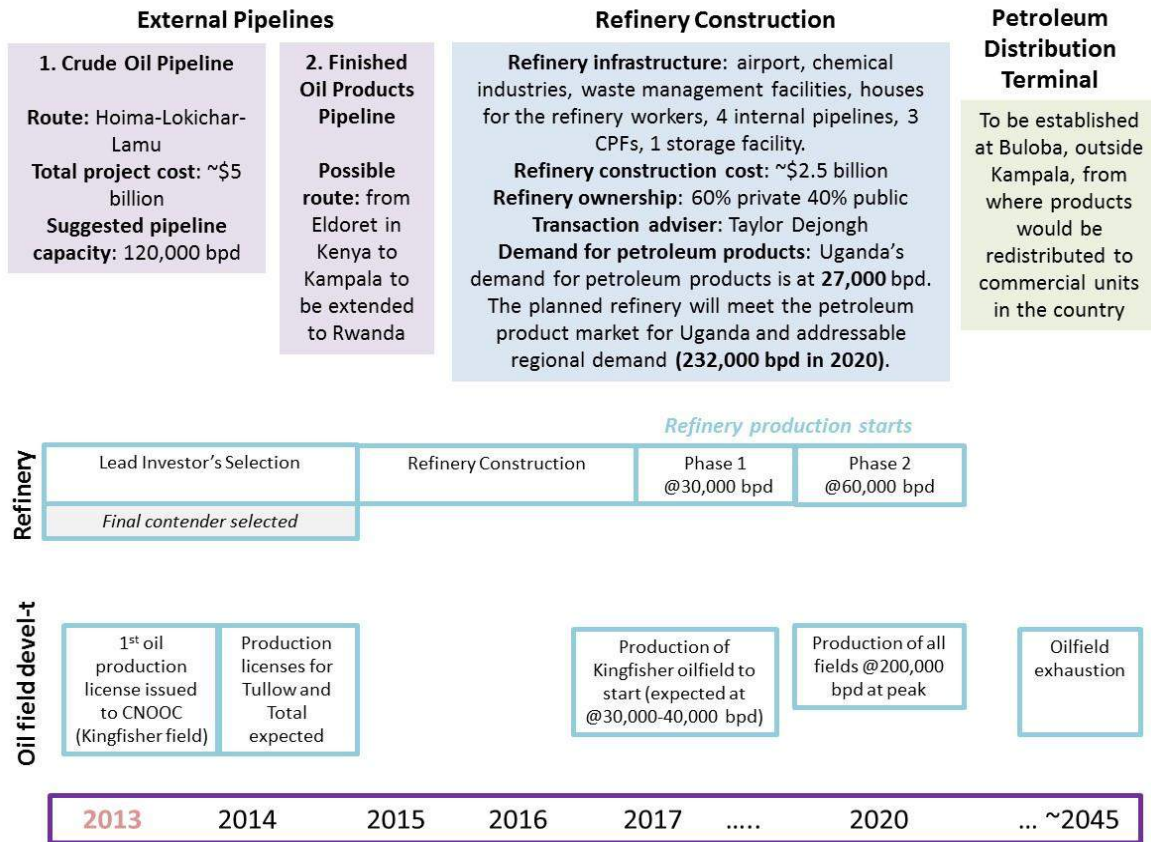


97. **As the waxy crude oil found in Kenya and Uganda solidifies at ambient temperatures, the pipeline will contain a specialized heating system to keep the oil flowing.** If built, the pipeline would be the longest heated pipeline in the world. **Figure 4** shows the timeline for various oil industry initiatives in Uganda.

<sup>41</sup> Oil Pipeline Deal to be Sealed Next Month. The East African. May 2014.

<sup>42</sup> Ibid

**Figure 4. Timeline for Oil Industry Initiatives in Uganda**



**2.2 OVERVIEW OF PETROLEUM LEGISLATION IN UGANDA**

98. **The National Oil and Gas Policy for Uganda was approved in early 2008.** The policy's goal is to use the country's oil and gas resources to contribute to early achievement of poverty eradication and create lasting value to society. A five-phase development strategy has been adopted with the first phase referred to as "Early Commercialization" in the period 2012-2015. The National Oil and Gas Policy includes two objectives related to national content development: *Objective 7: To ensure optimum national participation in oil and gas activities,* and *Objective 8: To support the development and maintenance of national expertise.* The detailed text of these objectives is presented in **Annex 4.**

99. **Consistent with the National Oil and Gas Policy, the model PSA for Uganda (2006) includes a number of requirements with respect to the employment and training of nationals in the workforce** (see excerpt below)

**Article 20—Purchases in Uganda**

- Maximize use of local goods and services, where available on a competitive basis
- Implement tender procedures that give adequate opportunity for local suppliers to compete
- Report achievements in utilizing Ugandan goods and services.

## Article 21—Training and Employment

- Train and employ suitably qualified Ugandan citizens following commencement of production
- Undertake the schooling and training of Ugandan citizens for staff positions, including administrative and executive management positions.
- Provide grants to support the training of government officials on matters related to the management and oversight of the petroleum sector

100. **Overall, the Policy and the PSA call for promotion of provision of goods and services to the oil and gas industry by the entrepreneurs, employment and transfer of skills and technology in the country.** However, all of these goals are rather general and specifics need to be set by other legislation.

101. **Two importance pieces of petroleum legislation have been adopted.** These include the Petroleum Exploration, Development and Production (PEDP) Act and the Petroleum Refining, Gas Conversion, Transportation and Storage Act.

102. **The PEDP Act establishes several new institutions:** the Directorate of Petroleum, the Regulatory Petroleum Authority of Uganda, and the National Oil Company (“Natoil”), among others. This is in line with National Oil and Gas Policy for Uganda 2008, which recommended that the roles of regulation, policy setting and commercial aspect being undertaken by the Ministry of Energy and Mineral Development are separated. The Ministry of Energy and Mineral Development is already in process of drafting regulations to operationalize the two institutions. The Natoil is expected to be incorporated as a private company, with shares initially held by MoFPED (1 percent) and Ministry of Energy and Mineral Development (99 percent), to be later floated on the stock exchange and purchased by private investors (similar to Statoil Norway and Petrobras of Brazil). Natoil is expected to own 40 percent in the refinery and 15 percent of stake in the oil fields under development<sup>43</sup>.

103. **Both the *Petroleum (Exploration, Development and Production) Act* and the *Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act* contain provisions encouraging local content in Uganda.** Articles 125-127 of the PEDP Act set requirements for provision of goods and services by Uganda entrepreneurs, training and employment of Ugandans and technology transfer. Articles 53-55 of the Midstream Act have the text very similar to the Articles 125-127, with only minor differences. Due to the fact that during the current phase in Uganda PEDP Act is applicable, we will concentrate our analysis on it.

104. **Article 125 (below) of the PEDP Act specifies the requirements for provision of goods and services, which this study is primarily concerned with.**

*(1) Oil companies, their contractors and subcontractors shall give preference to goods which are produced or available in Uganda and services which are rendered by Ugandan citizens and companies.*

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<sup>43</sup> Legal loopholes emerge even as oil authority, company are set to start. The Weekly Observer (Uganda), September 11, 2013

*(2) Where the goods and services required by the contract or licensee are not available in Uganda, they shall be provided by a company which has entered into a joint venture with a Ugandan company provided that the Ugandan company has a share capital of at least forty eight percent in the joint venture.*

*(3) The licensee, its contractors and subcontractors shall ensure that the entities referred to in subsection (1) are— (a) notified of the quality, health, safety and environment standards required by the licensee; and (b) notified of the upcoming contracts as early as practicable.*

*(4) The entities referred to in subsection (1) shall— (a) have capacity to add value to meet the health, safety and environment standards of the petroleum activities carried out by the licensee; and (b) be approved in accordance with criteria prescribed by the Minister by regulations.*

*(5) Within sixty days after the end of each calendar year, the licensee shall provide the Authority with a report of its achievements and its contractors and subcontractors' achievement in utilizing Ugandan goods and services during that calendar year.*

**105. Article 125 of the PEDP Act has a number of positive features.** One positive of the Article 125 is that the requirements to give preference to local contractors are set not only for IOCs themselves but also extended to their whole supply chain, i.e., their contractors and subcontractors. This is important because most of Uganda's local enterprises, especially SMEs, will be dealing not with procurement departments of the IOCs but of their EPCs. Nevertheless, while the legal basis might be there, the enforcement of the law is what will really make the difference for small local companies in Uganda. Another positive feature of this article is that the Act specifies that the preference is given to goods which are produced in Uganda (which implies that they can be produced by any company which is based in Uganda, not necessarily indigenous). This opens opportunities for FDI in the country. Finally, IOCs are required to notify suppliers of upcoming contracts as soon as practicable and submit a report of achievements in utilizing Ugandan goods and services during the calendar year, as well as a detailed program for recruitment and training of Ugandans and a report on the execution of the program.

**106. Nevertheless, despite some of the strengths, the PEDP Act also suffers from some weaknesses.** First, while it sets a requirement to "give preference" to locally produced goods and rendered services, this term is very broad, and therefore this requirement is easy to avoid. The level of preference would need to be much more specific to make this requirement operational. As long as the goods and services are available in Uganda, IOCs have an excuse to use foreign service providers as they have a long-standing relationship with them, leaving small Ugandan suppliers out. Second, while PEDP Act requires IOCs and their EPCs to inform suppliers of upcoming contracts as early as practicable, there is no specific timeline specified, and IOCs can provide this information too late for suppliers to be able to act on it. The Act also does not provide the definition of an indigenous company to be used in the calculation of national content. It is important to ensure that the definition of an indigenous company is defined in the legislation. While IOCs have reported some figures on the national content, they have used their own definition, which may be biased, and as such national content levels are measured incorrectly.

**107. The PEDP Act also stipulates that where the goods and services required by the contractor or licensee are not available in Uganda, they shall be provided by a company which**



**has entered into a joint venture with a Ugandan company provided that the Ugandan company has a share capital of at least forty eight percent in the joint venture.** Imposing such a harsh requirement is not recommended, as instead of promoting local participation in the oil industry, it will simply prevent FDI and creation of joint ventures. In many cases local companies will not possess sufficient amount of capital to contribute forty-eight percent of the venture, and this will be a deal breaker. Such a high requirement for local ownership may lead to creation of questionable practices (e.g., shell companies) and will unlikely help to achieve the goals of developing the national economy.

108. **In many developing countries, including Uganda, “localization” would be sufficient to spark innovation and national content development.** The approach in favor of “localization” is argued in the study “Enhancing National Participation in the Oil and Gas Industry in Uganda” which was commissioned by the Ministry of Energy and Mineral Development. The study states that national content needs to be defined in terms of value addition in Uganda, as opposed to ownership of the company performing the value addition.

109. **It is true that some other countries have gone down a similar path of requiring the formation of joint ventures.** For instance, the Chinese government helped to nurture domestic capabilities in consumer electronics and other technologically advanced sectors through targeted policy interventions. Foreign investors were required to form joint ventures with local companies, to transfer technology, and to source their inputs locally. However, new evidence suggests that, when combined with policies aimed to foster transfer of technology, FDI is likely to drive faster and more sustainable productivity gains for local producers. “Localization” is likely to yield more and faster benefits than “nationalization”.

110. **Brazil’s example could be useful to review in this case.** Following the completion of a competitiveness diagnostic study in 2003, an action plan was prepared to address competitiveness and capacity gaps. Strategies were designed taking into consideration the relevance of each subsector to the oil and gas industry, the level of local production capacity and the competitiveness of the subsector. For example: (1) where local supply capacity existed but was inadequate—such as in marine vessel fabrication, engineering services—strategies were designed to incentivize foreign contractors to partner with Brazilian firms; and (2) where local capacity did not exist or could not be developed- as in the manufacturing of centrifugal compressors and diesel engines - international firms were encouraged to establish subsidiaries in Brazil, including by bundling together work packages and using repeatable designs to increase the returns and reduce the commercial risks to investment in Brazil.

111. **In Uganda, a similar approach could be used.** For goods and services not available in Uganda at this stage, MNCs would be encouraged to set up subsidiaries in Uganda, without a requirement to form joint ventures. For those subsectors which already exist in Uganda, there would be more feasibility to establish joint ventures and it would be important to facilitate establishment of relationships between local suppliers and foreign firms. Nevertheless, we would again not argue for a specified percentage of ownership, as the interest of a foreign company to form a joint venture would depend on the unique circumstances.

112. **Overall, ownership of a company does not matter very much: linkages are linkages whether they are developed by a subsidiary of a MNC that set up camp in Uganda, or by a**

**Ugandan company.** If a MNC sets up operations in Uganda and does not have any local shareholding, it would still greatly benefit Uganda's economy from the standpoint of technology transfer, employment and sourcing of local goods/services to carry out production. Given the high local shareholding requirement stipulated in the law, a lot of multinationals, otherwise interested, might just decide not to set up operations in Uganda. More flexibility needs to be given to attract such firms.

113. **The “National Content Policy for the Petroleum Sector in Uganda”, currently under development by the government, also favors “nationalization” compared to “localization”, although does not stipulate the required percentage of local ownership in a joint venture.** We would recommend re-visiting this topic and re-considering the approach of the government, and especially reviewing experience of other countries to take advantages of lessons learned by them. Even Brazil and Malaysia that have highly sophisticated economies appreciate the effects of localization on the transfer of skills and technology that eventually leads to a strong national system of innovation. This is a very critical point, especially in sectors that rely extensively on patented products and processes.

114. **At present, there is no margin of preference defined in the legislation, and IOCs have developed their own rules in the absence of the specifics.** According to local suppliers, IOCs and their contractors add uniform 10 points for national content in their bid evaluations, regardless of the percentage of ownership or the industry the supplier functions in. PEPD is in the process of developing regulations for national content, and there is a possibility that some targets will be set.

115. **As mentioned earlier in this report, in order to make a positive impact on the economy, setting any margins of preference would need to be informed by very thorough analysis of sectors of the economy to understand their capacity to serve the oil industry from the standpoint of both quantity and quality.** If such a decision to set targets is made, it would be important to ensure that they are in line with the capabilities of the domestic market and do not exceed its capacity. The targets would need to be developed based on thorough analysis of domestic capacity in particular sectors to ensure that local suppliers in these sectors can realistically provide goods and services meeting strict quality and quantity standards of the oil industry. Setting of realistic for local capacity global targets (i.e., minimum local content for exploration phase) can be more difficult to achieve, compared to targets for particular sectors.

### **2.3 ASSESSMENT OF BINDING CONSTRAINTS FACED BY LOCAL SUPPLIERS OF THE OIL INDUSTRY IN UGANDA**

116. **The oil sector offers Uganda a unique opportunity to transform its economy.** With its massive demand for infrastructure and goods and services, the oil sector can serve as a potential driver of specific sectors of economy which to date did not have sufficient demand to achieve a major shift. With appropriate measures in place, there is a great potential to generate a "pull" effect for some sectors and take them to the next level in terms of the quality and quantity of production, later enabling enterprises in these sectors to effectively serve other industries in Uganda and export markets. The benefits for the local private sector are expected through increased employment, value addition and technology transfer.

117. **For Uganda’s private sector, significant opportunities are opening up in supplying goods and services demanded by the oil industry.** Given the highly entrepreneurial culture of Ugandans, this channel seems to be very promising.

118. **According to Sub-Saharan African Regional Report (2012)<sup>44</sup>, Ugandans report one of the most positive attitudes towards entrepreneurship in Sub-Saharan Africa (SSA): 81 percent of Ugandans perceive opportunities in entrepreneurship, compared to the SSA average of 70 percent.** Only 15 percent of Ugandans have fear of failure, compared to 24 percent in SSA. This number is particularly impressive given that SSA is the world leader in the entrepreneurship culture: over twice as many people in SSA see opportunities than do people in Europe and the Asia Pacific and South Asia region. 79 percent of Ugandans have entrepreneurial intentions, compared to 53 percent SSA average. New business ownership rate in Uganda is also one of the highest in SSA (28 percent). High entrepreneurial activity in Uganda is largely due to lack of other sources of income: the report shows that 46 percent of entrepreneurship in Uganda is necessity-driven.

119. **Opportunities for Ugandan entrepreneurs to get involved in the petroleum sector are only available for a short time.** The construction phase during which most of the contracts will be tendered is nearing. Development of enterprise capacity to make local businesses competitive in relation to well-established foreign players takes a long time and oftentimes requires significant investment. If local suppliers are not able to offer competitive terms, contracts will be lost to foreigners.

120. **Unfortunately, many emerging opportunities for Ugandan suppliers might not materialize due to a number of constraints which local private sector is presently facing.** Overall, firms remain primarily in low value-added, labor intensive areas of production,<sup>45</sup> and, as a result, it is difficult for Ugandan firms to compete in international markets. Total factor productivity is lower in the manufacturing sector in Uganda than it is in most other countries in SSA. Finally, the country is also lagging behind SSA averages in agricultural productivity.<sup>46</sup> Low productivity in agriculture is a function in part of a lack of investment in business development services (BDS) by many Ugandan firms.

#### *Business environment*

121. **Business environment in Uganda is currently not sufficiently conducive to private sector development.** A number of studies and surveys of Uganda’s private sector undertaken by the World Bank and other donors have all led to this conclusion. This represents a problem both from the standpoint of having local entrepreneurs participate in the oil sector and attracting foreign companies to set up subsidiaries and form joint ventures in Uganda to serve oil sector.

122. **In the *Global Competitiveness Index 2014-15 Report*, Uganda ranked rather low: 122 (out of 144 countries measured).** In terms of basic requirements (institutions, infrastructure,

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<sup>44</sup> African Entrepreneurship. Sub-Saharan African Regional Report. 2012

<sup>45</sup> An Assessment of the Investment Climate in Uganda). The World Bank. 2009

<sup>46</sup> According to national accounts data, agricultural output expansion over the past two decades has come from the rapid increase in the agricultural labor force and area expansion, rather than productivity growth.

macroeconomic environment and health and primary education) Uganda is ranked 126, which is very low. On efficiency enhancers, Uganda is ranked slightly higher (110) and on innovation and sophistication- 104. The most problematic factors for doing business, according to the report, are corruption (22.5 percent of responses), access to finance (14 percent) and inadequate infrastructure (13.5 percent).

123. **The country also performs poorly in the World Bank’s annual *Doing Business (DB)* report and on the Transparency International Corruption Perception Index (CPI).** In the DB 2015 report, Uganda ranked 150 (out of 189 economies). Uganda was ranked 142 (out of 175 countries) on Transparency International CPI. Among East African countries, on this indicator Uganda lags behind Rwanda (ranked 55) and Tanzania (ranked 119), but it is ahead of Kenya (ranked 136) and Burundi (ranked 159).

124. **Box 6 shows how Uganda performs in DB report and in the Transparency International Corruption Perception Index compared to a number of resource-rich countries in the world.** Some of these countries have business environment conducive to private sector development, as demonstrated by high DB and corruption perception rankings, while others have much less favorable business environment. It would be expected that population in general (and private sector in particular) in countries with favorable business environment would generally be able to benefit from oil resources much more than in countries where business environment is unfavorable. GNI per capita of these resource-rich nations demonstrate that generally, countries with a favorable environment for business are wealthier on per capita basis.

**Box 6. Rankings of Select Resource-Rich Countries**

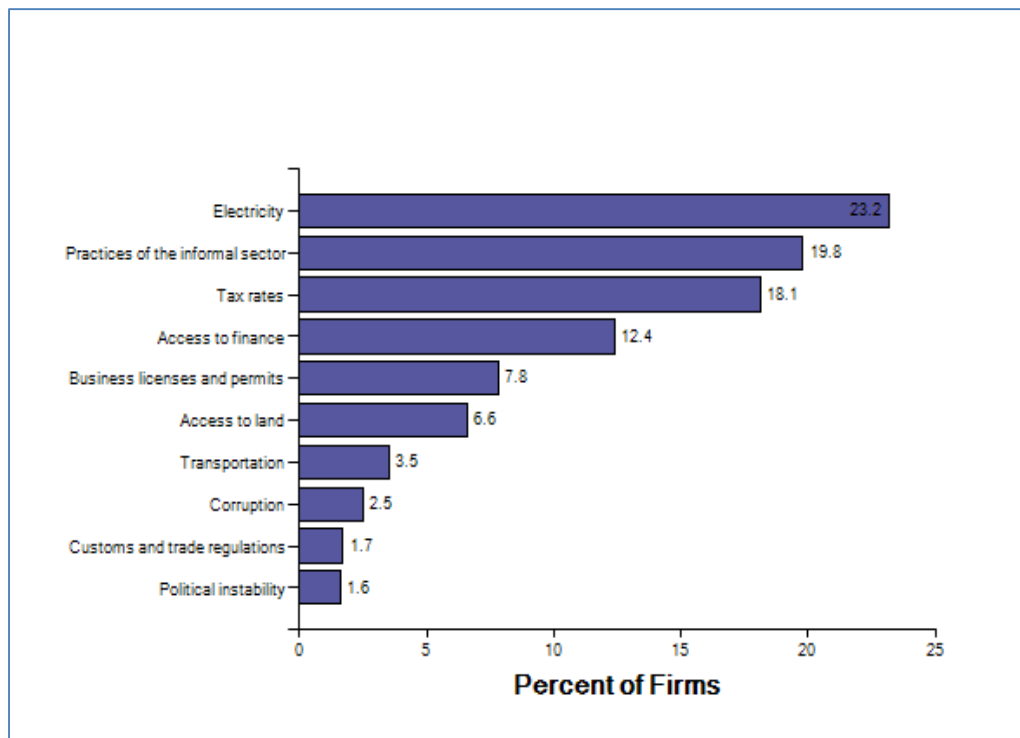
Country	DB 2015 Ranking (out of 189 economies)	Corruption Perception Rank 2014 (out of 175 economies)	GNI per capita (DB 2015)
Norway	6	5	102,610
United States	7	17	53,670
Chile	41	21	15,230
Botswana	74	31	7,730
<i>Uganda</i>	<i>150</i>	<i>142</i>	<i>510</i>
Nigeria	170	136	2,760
Burkina Faso	167	85	670
Angola	181	161	5,010
Chad	185	154	1,020
CAR	187	150	320

125. **Recent DB reports show that many constraints affect Ugandan firms, including challenges with getting electricity, trading across borders, starting a business, dealing with construction permits, and registering property.** Among all DB 2015 indicators, Uganda’s lowest rank is currently on getting electricity (184 out of 189 economies). Among EAC countries, this is the lowest ranking: Rwanda is ranked 62, Tanzania- 87, Kenya- 151, and Burundi- 182.

126. **Trading across borders and obtaining construction permits are also a major challenge in Uganda.** The country ranks 161 and 163, respectively, on these indicators. Uganda also ranks low on registering property (125). Land policies are currently very cumbersome and land tenure security is weak, and investors cannot yet be sure of reaping the full benefits of land deals and investments. Business registration, which is inefficient, slow, and a significant barrier to entering the Ugandan market, continues to be a burden for enterprises. Uganda is ranked 166 on starting a business. Business licensing is also administratively burdensome for businesses. As informal businesses cannot participate in supplying the oil industry, high costs of operating legally represent a significant barrier for local businesses to partake in the emerging opportunities.

127. **The recently conducted *Enterprise Survey in Uganda (2013)* revealed that the top business environment constraints are electricity, practices of the informal sector, tax rates, access to finance and business licenses and permits.** Figure 5 below shows the percent of firms which identified each of the constraints as the biggest obstacle to their business.

**Figure 5. Top Ten Business Environment Constraints for Firms in Uganda<sup>47</sup>**



128. **Access to finance is a significant constraint to doing business in Uganda.** According to Enterprise Survey (2013), very few Ugandan firms have a bank loan/line of credit compared to all countries, and even SSA: only 9.8 percent in Uganda compared to 24 percent in SSA and 36.5 percent worldwide. The value of collateral required for a loan is slightly lower than world average, but proportion of loans requiring collateral is higher. Very few firms in Uganda use bank loans to

<sup>47</sup> Enterprise Surveys in Uganda (2013)

finance investments (8 percent in Uganda compared to 27 percent worldwide). **Table 7** below shows a number of indicators in Uganda against SSA and world averages.

**Table 7. Access to Finance Indicators<sup>48</sup>**

Indicator	Uganda	SSA	All Countries
Percent of firms with a checking or savings account	86.7	88.1	88.2
Percent of firms with a bank loan/line of credit	9.8	23.8	36.5
Proportion of loans requiring collateral (%)	86.4	79.7	77.3
Value of collateral needed for a loan (% of the loan amount)	159.4	175.2	182.2
Percent of firms not needing a loan	41.9	34.1	40.9
Percent of firms whose recent loan application was rejected	7.7	15.3	14.5
Percent of firms using banks to finance investments	8.2	18.0	27.3
Proportion of investments financed internally (%)	79.5	78.3	69.2
Proportion of investments financed by banks (%)	3.3	9.9	16.3
Proportion of investments financed by supplier credit (%)	3.2	3.9	5.1
Proportion of investments financed by equity or stock sales (%)	13.0	3.7	5.0
Percent of firms using banks to finance working capital	21.7	23.5	31.0
Proportion of working capital financed by banks (%)	7.0	9.9	12.6
Proportion of working capital financed by supplier credit (%)	3.5	7.2	10.8
Percent of firms identifying access to finance as a major constraint	20.2	43.0	30.8

129. **Uganda ranks 131 on the *Getting Credit* indicator in the DB 2015 report.** In terms of depth of credit information, Uganda receives 0 points out of 6. While credit reporting system in the country largely answers the requirements (e.g., both positive and negative data is distributed, data is available on both individuals and firms), in fact, coverage is only 4.9 percent of the population, which is extremely small to make an impact. The DB methodology is such that if the credit bureau or registry is not operational or covers less than 5 percent of the adult population, the total score on the depth of credit information index is 0, regardless of whether the system overall exists and is designed properly.

<sup>48</sup> Enterprise Surveys in Uganda (2013)

130. **In terms of strength of legal rights of creditors, Uganda also ranks quite low (6 points out of 12) as there are some issues.** For instance, while movable assets can be used as collateral in Uganda, financial institutions are usually quite reluctant to use them alone, unless immovable property is also pledged alongside. Moreover, the fact that there is no collateral registry and secured creditors are not paid first when the business is liquidated makes creditors even more reluctant to lend against movable assets. Finally, Uganda ranks quite low on related DB indicators (Resolving Insolvency- 98 and Enforcing Contracts- 80) which makes debt resolution challenging and in part explains reluctance of creditors to lend to smaller, more risky borrowers

131. **The Financial Sector Assessment Program (FSAP) 2011 update also revealed that private enterprises, particularly MSME’s in Uganda have limited access to financial services.** Credit remains concentrated in the corporate sector and financing and leasing facilities for MSMEs are inadequate. The FSAP update did indicate that financial development has somewhat accelerated and competition in the banking sector has improved in the recent years, but efficiency gains are yet to materialize. In 2012-2013, domestic credit to private sector as percent of GDP in Uganda was lagging behind a number of regional peers (**Table 8**).

**Table 8: Financial sector depth, 2012-2013<sup>49</sup>**

Country	Domestic credit to private sector (percent of GDP)	
	2012	2013
South Africa	151.8	156.1
Mauritius	100.8	108.0
Kenya	37.0	39.6
Burundi	19.5	18.0
Tanzania	17.9	17.2
Uganda	16.2	15.5
Zambia	14.8	14.6

132. **The cost of financing is also very high in Uganda compared to other countries in the region and the world.** The average shilling commercial bank lending rate in Uganda was 21.57 percent in 2014. According to the WEF Global Competitiveness Report 2014-15, Uganda ranks 121 (out of 144 countries) by affordability of financial services (down from 116 a year earlier). In comparison, Kenya and Rwanda rank 64 and 56, respectively, on this indicator.

133. **Access to finance is especially costly for MSMEs in Uganda.** Low quality of financial statements, information asymmetry, and high perceived risk are some of the main reasons why banks are reluctant to extend financing to MSMEs and would do that only at very high interest rates.

*Specific constraints faced by oil and gas suppliers*

<sup>49</sup> World Bank Data. <http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS>

134. **In order to understand specific constraints faced by suppliers of the oil and gas industry in Uganda, the World Bank team leveraged a number of sources.** A focus group discussion was organized with several members of the Oil and Gas Service Providers Association. Relevant government authorities and financial services providers were interviewed. The team also benefitted from the ample discussions held as part of the roundtable dinners on national content. Finally, the team leveraged results of numerous studies, including the *Industrial Baseline Survey (IBS)* conducted by the IOCs<sup>50</sup> and a study *Constraints and Opportunities for SME Investment in Uganda's Oil and Gas Sector* conducted by the Uganda Investment Authority (UIA).

135. **The IBS revealed that main constraints faced by the oil and gas suppliers were:** (1) visibility over demand; (2) access to finance; (3) poor infrastructure; (4) administrative bureaucracy (process of obtaining required approvals, such as safety, environment, electricity from the public administration); (5) lack of training of skilled people; (6) O&G high quality standards; and (7) low capacity of suppliers. Please refer to **Annex 5** for the detailed description of the IBS survey and its results.

136. **A study *Constraints and Opportunities for SME Investment in Uganda's Oil and Gas Sector (2012)* undertook a survey to identify the greatest determinants of SME willingness to invest in oil and gas sector in Uganda.** The top three determinants revealed by the study included: (i) investment capital, (ii) knowledge of oil business, and (iii) access to credit.

137. **Entrepreneurs interviewed as part of the oil and gas suppliers focus group organized by the World Bank listed a number of constraints they are facing in supplying the oil and gas industry.** These included access to finance<sup>51</sup>; existence of information asymmetries; high quality standards which are different between the three IOCs, and high costs associated with meeting them; high volume/quantity requirements of the IOCs; and other constraints. Below we provide a detailed analysis of the key constraints faced by local suppliers.

138. **Although access to finance is a constraint for all businesses in Uganda, this challenge is even more intensified for the oil and gas industry suppliers.** Affordability of finance in Uganda is clearly a major problem, and so is the availability of truly long-term funding. To be able to be competitive in this capital-intensive and quality-conscious industry, local suppliers need access to both investment and working capital at reasonable terms. High costs of financing make Uganda suppliers uncompetitive and they cannot contend with foreign competitors, which are financed at much lower costs, bidding for the same contracts with the IOCs.

139. **Lack of access to affordable working capital represents a significant problem for local suppliers of oil and gas industry.** Since the IOCs undoubtedly have the bargaining power, they usually negotiate rather favorable for them payment terms, and actual payment is often extended even beyond. This does not represent a problem for many foreign companies which are able to access working capital solutions on favorable terms, but does represent a challenge for Ugandan

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<sup>50</sup> Similar initiatives have been carried out in other countries. For example, at the end of 2003 in Brazil the Ministry of Mines and Energy and Petrobras launched a national competitiveness diagnostic study to identify current and project local supplier capability.

<sup>51</sup> Suppliers taking part in the focus group noted that this is their single greatest obstacle in supplying the oil and gas industry



suppliers, especially MSMEs. Cash flow becomes a major problem for them because they need to purchase materials to fulfil purchase orders, perform the work and then wait for 30 days or more to get paid after the delivery. While some companies have started exploring factoring solutions, they are not yet widely used and awareness of these instruments needs to be built.

140. **Suppliers also report that they are unable to gain access to affordable investment capital of long-term duration, which prevents them from taking advantage of many investment opportunities which the oil and gas industry offers.** First, in order to serve the oil and gas industry, small local suppliers oftentimes need to scale up their business significantly, but this is very difficult to do without taking out a loan (or getting an equity partner). Second, in many cases, proper equipment is critical for producing goods of high quality and unless a business is able to purchase this equipment, they would not be able to meet the standards of the IOCs. Because such equipment is usually quite expensive, many small businesses might not be able to afford it.

141. **Generally, many endeavors, even though potentially very profitable, might never be pursued by local companies in Uganda due to lack of access to investment capital.** The results of the IBS support this conclusion. For instance, investments in food processing plants could be desirable both from the standpoint of supplying the oil and gas industry and Ugandan market as a whole, but might never materialize due to lack of funding. Substantial investments would also be needed to buy new trucks, pumps and tanks for local suppliers to effectively operate in generic and hazardous waste management industries where local capacity is currently below the projected demand from the IOCs. Companies engaged in road construction and rehabilitation would need to significantly increase their capacity to meet the increasing demands from the oil industry, which would require sizable investments in earth moving equipment and bitumen. In the transportation and logistics industry, domestic capacity is also significantly below the projected demand of the IOCs and investments would need to be made to substantially increase the fleet of trucks and number of warehousing and storage facilities. The results of the IBS undertaken by the IOCs highlight that enterprises in many sectors (e.g., light manufacturing, facility management, food supply, furniture manufacturing, road construction) considered access to finance one of their binding constraints for effectively supplying the oil industry.

142. **From the supply-side perspective, discussions with select financial institutions confirmed that there were no overall capacity constraints in banking today, but rather a shortage of qualified borrowers.** Financial institutions have reported that in fact they would be interested to finance eligible borrowers at market rates for a short-term maturity (and possible medium-term maturity for the most qualified borrowers). This is consistent with the findings of the WEF Global Competitiveness Report 2014-15 in which Uganda ranked 86 (out of 144 countries) on availability of financial services. Of course, despite this evident availability of resources, the problem of cost of funds and duration still remains.

143. **One of the interviewed financial institutions noted that many of entrepreneurs interested in supplying the oil industry have approached it in the last several years.** The challenge was that these prospective borrowers did not know even the basics of securing financing (preparation of the business plan etc.). The institution worked with several such entrepreneurs who showed the most promise. Under the provided guidance, they managed to prepare the necessary documents and secured financing. This experience highlights a very important point.

144. **Ugandan oil and gas suppliers currently do not have any particular center where they could obtain information and, if needed, capacity-building in terms of where to apply for financing, what documents are needed, how to prepare them and other formalities.** While large local firms usually possess all of the required information, MSMEs are typically much less savvy. It is evident that capacity-building of oil and gas suppliers should not be provided by private financial institutions as this is not their mandate. These trainings should be developed and delivered to interested suppliers through an enterprise development program, along with other useful modules.

145. **It is necessary to emphasize that financing would be availed primarily to suppliers who already signed contracts with IOCs (as opposed to those who are only aspiring suppliers).** The experience of some financial institutions shows that in order to reduce their risks, they structured financing to the suppliers under the condition that the IOC (buyer) would pay for goods/services directly to the bank as opposed to the supplier. This requirement makes chances of financing for those suppliers who do not yet have contracts with the IOCs or other well-recognized buyers rather low, unless they possess required amounts of collateral (as noted in **Table 7** above, collateral amount in Uganda approximately 160 percent of the loan).

146. **Even suppliers possessing contracts with IOCs would still face challenges with obtaining financing.** First, the financial institutions would primarily consider contracts with several years duration as there would be some certainty that the enterprise would be supplying for an extended period of time. There would be no sense to go through the hassle of arranging for direct payment to the bank if the supplier is only contracted for a month or two. Moreover, Uganda suppliers report that many of them currently have what is called “a framework agreement”, an umbrella agreement which establishes terms governing contracts that may be awarded during the life of the agreement. Suppliers are then called upon to provide particular services within a specified period of time. Such an agreement would most likely not be acceptable to financial institutions because it does not place an obligation on the IOC to purchase a particular volume of goods and services. Second, even when a supplier possesses a contract which places an obligation on an IOC to purchase from him, access to truly long-term funding would most likely be illusive. They would most likely be able to obtain 1-3 year financing. This would make purchases of long-term assets, which are largely needed to increase domestic capacity in a number of key industries, very difficult.

147. **Despite its high importance, access to finance for oil and gas service providers is not currently being addressed through any centralized, well elaborated programs in Uganda.** While there has been a mention in the press of a technical group under the Prime-Minister’s office working on creation of a fund for firms in oil services provision, no decision has yet been made. In the absence of a mechanism targeted to provide affordable financing to MSMEs seeking to participate in the extractives industry, despite a lot of other viable initiatives, many companies might end up being locked out of this exciting industry.

148. **Existence of information asymmetries represents another major problem for local suppliers in Uganda.** At present, the 3-5 year plan of procurement of oil companies is not known to local suppliers, which makes it difficult for them to prepare in advance. Tender announcements require an answer within several weeks, which makes it impossible for local suppliers to team up, build up capacity in necessary areas, expand their operations, upgrade certain processes etc. to be

able to compete for the contract. If demand of oil companies were known well in advance, local suppliers would be able to see where the opportunities are coming up and look for financing, joint venture partners etc. to be prepared to bid when the tender opens.

149. **This problem is common among developing countries, and some countries have tried addressing it.** In Kazakhstan, Decree No. 965/2012 stipulates that operators must formulate and submit to the government their procurement plans. The aim of this regulation is inform Kazakhstani suppliers of the short- and long-term procurement plans of different oil and gas companies operating in the region. There is also experience of addressing this issue via non-regulatory interventions. For example, Brazil launched the Site Opportunities Supply Chain of Petroleum and Natural Gas in order to provide market information about the demand for materials, equipment and components required to carry out oil and gas projects, and encourage interaction between suppliers and buyers. The site allows SMEs and larger companies learn about supply opportunities<sup>52</sup>. Similar interventions could be applied in Uganda. In addition to establishing a website with oil and gas opportunities, information could also be sent to mobile phones of suppliers who signed up to ensure that SMEs can get information quickly.

150. **Leaving aside 3-5 year plans, suppliers in Uganda also report that unless they have some “connection” to the IOCs (or their EPC), there is little public information available to guide them in where to look for information on upcoming oil and gas opportunities and how to bid for contracts.** IOCs’ tender processes and procedures are generally designed to target established international suppliers and small local firms have a difficult time getting this information. Many current suppliers report that they received contracts with the three IOCs because at some point in time they supplied their predecessors (e.g., Heritage, Neptune). Others managed to break through owing to some contacts. But many suppliers, especially those not in Kampala, are left behind because they are not aware of how to apply for opportunities with oil companies, where to go for information etc.

151. **IOCs have conducted some ad-hoc seminars for local suppliers to educate them on the procurement process and opportunities but only suppliers in their database receive these invitations.** With the exception of an organization called Traidlinks, which is discussed in Chapter 3, as well as associations (e.g., Oil and Gas Service Providers Association), there is currently no dedicated agency where local suppliers who are interested in supplying the oil industry can get information about opportunities and assistance with linking them to the oil companies. In order to address problem of this kind, in many countries enterprise development centers were established.

152. **Uncertainty about the timeline of oil initiatives in Uganda is another source of unease for the private sector.** Falling oil prices, exit of some IOC executives and other developments create doubts in the mind of the private sector whether this is a good time to invest and expand their business to serve the oil industry. Same applies to banks: they are more reluctant to fund oil industry related initiatives when it is unclear if the project will be profitable in the end and borrower will be able to repay. Better communication can help alleviate anxiety and make private sector more inclined to invest and banks to fund these projects.

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<sup>52</sup> Tordo S., Warner M., Manzano O., Anouti Y. Local Content Policies in the Oil and Gas Sector. The World Bank. 2013

153. **Another major challenge for oil and gas suppliers in Uganda is meeting high quality standards of the IOCs.** According to the WEF Global Competitiveness Report 2013-14, overall supplier quality is very low- Uganda is ranked 129 (out of 144 countries). Not surprisingly, very few local businesses in Uganda comply with high oil and gas industry standards or even know what certification is needed and how to obtain it. The challenges are exacerbated by the fact that there are three IOCs working in Uganda, all of which come from different countries and have different standards. Until harmonization is achieved, local enterprises will have to bear an additional burden of complying with three different sets of standards. It is worth noting that due to their high quality standards, IOCs are reluctant to use suppliers which are not well-established as the perception is that they do not have the capacity to perform the tasks. While this may be true for many suppliers in Uganda, this does not necessarily represent the rule. Policymakers should consider facilitating the integration of local suppliers in IOCs' procurement strategies.

154. **There is also a great challenge in meeting significant costs of certifications and finding the acceptable provider.** Some Ugandan suppliers involved in logistics report that in the past, the local companies actually needed to team up to fly in a representative of a certification company from the UK to conduct a certification, as there was no local office in Uganda. The situation improved in the last several years when Lloyds British Testing Uganda, a wholly owned subsidiary of Lloyds British Testing, a leading global inspection, testing and training company, set up its offices in Uganda in February 2011 as a base for its operations in East Africa. Nevertheless, costs still remain significant.

155. **Ability to meet volume/quantity requirements of the IOCs is also a challenge for Uganda oil and gas suppliers.** Similar to other countries, IOC contracts are large and require suppliers to have significant capacity to be eligible for these contracts. Requirement to unbundle the contracts would be very useful in this case, as more local suppliers would become eligible to bid for these contracts.

156. **A number of suppliers also mentioned that the tender evaluation criteria did not adequately incorporate the issue of national content.** The 10 points allocated for local content were universal across the board for all the IOCs and all kinds of contracts (irrespective of industry). Issues were also cited with the definition of "local company" applied, as none was provided in the legislation. In order to address this challenge, one of the options could be to establish a higher local content weighting in contracts for industries in which Ugandan suppliers have enough expertise and are able to meet O&G requirements (e.g., logistics, food supply, accommodation contracts). A lower weight for local content in contract award could be warranted in cases where the opportunities to use local labor or materials are weak, and high expertise is needed (contracts for drilling services, proprietary equipment, or specialist engineering design services). In contrast, one might expect local content within logistics and cleaning services to command higher weighting.

157. **Additional challenges arise from the fact that a large number of suppliers in Uganda, especially SMEs, represent suppliers in the bottom of the supply chain.** They are second- or even third-tier suppliers which do not have a direct interaction with the IOCs. For instance, local suppliers of food would be discussing their contracts not with the IOCs procurement department, but with the catering company contracted by the IOCs. Although the IOCs might have the best intentions in promoting local content and reportedly incorporated certain clauses to that account in their agreements with the EPCs, in practice, local suppliers face a lot of challenges in their

interactions with the EPCs, as EPCs are not in exactly a developmental role and would not go an extra mile to support the national content.

158. **Suppliers have noted that monitoring and evaluation of the award of contracts by PEPD is currently is not sufficiently robust and needs to be improved to assist the local industry.** At present, the review takes place after contracts have been awarded, and it does not provide an opportunity to remedy the situation even if any irregularities have been discovered. Anecdotal evidence suggests that occasionally, local suppliers were at a disadvantage (e.g., a Request for Proposal (RFP) document was issued in Chinese). It would be much more beneficial to institute review of select contracts (e.g., high value) at different stages of procurement process to ensure that appropriate procedures are followed and appropriate remedial actions are taken in a timely manner. It would also be important to ensure that not only IOCs but also their EPCs (1<sup>st</sup>, 2<sup>nd</sup> tier contractors) report on national content to determine if the supply chain stretches to the local MSMEs and what is the volume of goods and services purchased from them. Tracking female participation would also be important; if participation appears low, strategies need to be desired to increase women’s participation.

## 2.4 DETAILED ANALYSIS OF NATIONAL CONTENT SUPPORT INITIATIVES IN UGANDA

159. **In Uganda, a lot of analysis has already been conducted on national content development and some initiatives supporting national content are underway.**

### A. UGANDA GOVERNMENT SUPPORT

160. **The GoU has been actively involved in promoting national content development in the oil and gas sector.** Some of the prominent initiatives include preparation of the studies “Enhancing National Participation in the Oil and Gas Industry in Uganda” and “Constraints and Opportunities for SME Investment in Uganda’s Oil and Gas Sector”, development of the “National Content Policy for the Petroleum Sector in Uganda”, establishment of the Uganda Petroleum Institute in Kigumba, and organization of a cycle of roundtable dinners in Kampala for a selected group of key national content stakeholders.

161. **The study *Enhancing National Participation in the Oil and Gas Industry in Uganda*, commissioned by the Ministry of Energy and Mineral Development, was completed in 2011.** The study highlights a number of opportunities for Uganda to leverage the oil and gas industry. If appropriate capacity is developed, Uganda can serve as a competence center for the oil and gas sector in the East African region. The multiple educational offerings available at Uganda universities (e.g., BSc and MSc in petroleum geosciences at Makerere University, the diploma at the Uganda Petroleum Institute in Kigumba) can already serve neighboring countries. Uganda also has potential to become the location for the regional offices of key service companies and technology providers internationally, given that Uganda now is in the forefront of oil and gas exploration and development in the region.

162. **The study suggests a number of important recommendations, grouped around 5 pillars:** (i) Institutional framework; (ii) Capacity-building in people; (iii) Enterprise development; (iv) Facilitating national participation; and (v) Monitoring national content achievements. Some of the recommendations are contained in **Box 7** below.

### **Box 7. Key Recommendations of study Enhancing National Participation in the Oil and Gas Industry in Uganda**

- Establish a government body for national content enhancement. The functional responsibility for national content enhancement should be delegated to one institution, and the Ministry of Energy and Mineral Development ought to be most suitable
- Regulate procedures for procurement. Procedures need to be established for the dissemination of information on field development plans and future demand and on how oil companies and their supply chains shall adhere to national participation. Procedures also need to be described regarding contracting plans and contract awards. Inspired from how it was done in Norway, the government should be given the right to suggest that domestic firms are included on the bidders list, but not the right to exclude any that the oil companies want to invite.
- Define and operationalize how national content should be measured. National content needs to be defined in terms of value addition in Uganda, as opposed to ownership of the company performing the value addition. As such, national content refers to value added in firms with an infrastructure in Uganda.
- IOCs need to commit to national content development. Training centers should be established by the IOCs. These training centers will help to accelerate the development of relevant capacity in the petroleum industry.
- An adequate capacity building program for the industry needs to be developed. Capacity status of the potential suppliers to the petroleum sector should be subject to the training needs assessment to identify gaps and a capacity-development program designed based on these findings. Implementation of the program needs to rest with an appropriate institution such as Private Sector Foundation of Uganda (PSFU).
- An SME program for the petroleum sector needs to be established in close cooperation between the GoU, IOCs, financial institutions and other key players. The program should bring in international companies in a sponsorship role and provide access to finance.
- Industrial projects with a large market potential should be identified. The production of high-grade cement has been identified as one project possibility. Industrial projects do not necessarily have to be directly linked to core oil activities. If food supply to the oil industry could be used as a means to establish systems for quality assurance in the production of agricultural products, larger markets could open for an industry that makes up the most of Uganda's economy.
- Contracts should be structured to align with domestic capacity. For instance, it would be beneficial to structure procurement into smaller packages for some key industries to enable participation of local suppliers. Preferably an up-front payment should be offered.
- A central information office for national content should be established. This office should act as the focal point for all information needed by the local industry to be a participant in the supply to the sector, including all information on required certificates and standards.
- A national register for prequalified companies should be established. This register should serve as a means for foreign companies to find well qualified Ugandan suppliers to team with, either in joint-ventures or through ordinary contracting.
- National content needs to be closely monitored and a system of evaluation of national content performance established. The measurement process needs to be open and transparent.

163. **The GoU is in the final stage of concluding “National Content Policy for the Petroleum Sector in Uganda”.** This policy clarifies the national intent, roles and responsibilities, and provides guidance to subsequent legislative, regulatory and strategic actions both for the Government of Uganda as well as for the private sector. The draft policy is supported by several National Content Plans: National Content Plan #1 (Procurement Principles and Supply Chain Interaction); National Content Plan #2/3 (Skills and Competencies Development); National Content Plan #4 (Enterprise Development); and National Content Plan #5 (Measuring and Monitoring National Content).

164. **A study *Constraints and Opportunities for SME Investment in Uganda's Oil and Gas Sector (2012)* was undertaken by the Uganda Investment Authority (UIA) and Makerere University.** The study investigated key actors in the oil and gas value chain, potential business linkages between the existing large oil prospecting companies and SMEs and factors that influenced SME decisions and willingness to invest in the oil and gas value chain. A total of 220 registered SMEs were purposively selected from a cross section of sectors. The results of the study revealed that the main actors in the oil and gas value chain were IOCs, large foreign and domestic direct and indirect service providers with minimal involvement of SMEs. Business linkages for SMEs and IOCs existed at the vertical and horizontal levels but they were rather poor. Only 10 percent of SMEs had permanent contractual terms to supply IOCs. According to the Logit model, the strongest predictors of SME willingness to invest were having investment capital, access to credit, information and owning fixed assets.

165. **The GoU also realized that it must help provide the skilled manpower that oil and gas upstream and downstream industries require.** In February 2009 the GoU established the Uganda Petroleum Institute in Kigumba (UPIK) in north-western Uganda. A UPIK Statute was later tabled in parliament by the Hon. Minister of Education and endorsed in 2012, establishing the Institute as a legally recognized and gazetted, tertiary education institution for petroleum studies. In 2013/14 the GoU with the support of the World Bank initiated the production of the Institutional Development Plan for UPIK. The plan specifies a number of objectives for UPIK, including developing and delivering certificate and diploma level courses for skilled technicians, partnering with an internationally recognized petroleum education and training institution and adapting its programs and certification to meet the manpower needs in Uganda, and becoming a center of excellence in workforce skills development at technician level in the petroleum sector in Uganda and East Africa. The GoU plans to fund the implementation of this Plan at a cost of US\$10 million under the Uganda Albertine Region Sustainable Development Project financed through the World Bank.

166. **Furthermore, the GoU rightfully identified meeting technical standards of IOCs as one of the main constraints for local businesses.** GoU therefore created Technical Committee (TC) 16 to compile and document all the required standards in the oil and gas sector. It is a very welcome initiative as suppliers currently face significant difficulties trying to comply with different technical standards for each oil company. It is important to ensure that TC16 has adequate capacity and resources to achieve the goals in a timely manner, as the task of documenting all the oil and gas standards is quite challenging.

167. **Moreover, the Ministry of Energy and Mineral Development, with the support of the Royal Norwegian Embassy and the World Bank, organized a cycle of roundtable dinners in Kampala for a selected group of key national content stakeholders.** Invitees include representatives from the Government, the private sector (including IOCs), academia, the civil society and donors active in the national content agenda. The roundtable dinners are chaired by the Ministry of Energy and Mineral Development and benefit from the technical support and practical knowledge of an expert coming from the country featured at a particular session. The concept of the roundtable dinner is presented in **Annex 6**.

## **B. PROFESSIONAL ASSOCIATIONS**

168. **The Association of Uganda Oil and Gas Service Providers has been formed with the idea of growing Ugandans' participation within the oil industry.** The association organizes provides networking and capacity-building opportunities to its members.

169. **The Uganda Chamber of Mines and Petroleum is a private sector lobby group that advocates the interest of private sector players in the oil and gas industry.** It has recently partnered with ESLSCA, a European Business School founded in Paris, to enable young Ugandans attain training in oil and gas. ESLSCA was established in Uganda in 2013 and is accredited to offer undergraduate and postgraduate programs. ESLSCA Uganda Board of Trustees is headed by Elli Karuhanga, the chairman of Uganda Chamber of Mines and Petroleum. ESLSCA is in the process of starting degrees in Engineering and Petroleum Economics and Management in partnership with the Uganda Chamber of Mines and Petroleum.

## **C. IOC INITIATIVES**

170. **IOCs have also taken a number of important steps in supporting national content in Uganda.** Following the completion of the IBS, Joint Venture Partners (JVPs) commenced implementation of national content initiatives recommended by the IBS. Please refer to **Annex 5** which discusses in detail the content and recommendations of IBS as well as subsequent initiatives to implement recommendations of the IBS.

171. **The activities initiated by the JVPs in the recent months include the following:**

- *Establishment of the IEC to support capacity development of Ugandan companies to enable them to effectively respond to business opportunities on the oil and gas project.*

The working group on the establishment of the center has been established and includes representatives of the PEPD, Ministry of Trade Industry and Cooperatives (MTIC), the World Bank, Total, Tullow, and CNOOC. Several working group meetings have already taken place and terms of reference for a consultant to conduct the feasibility study for the Industry Enhancement Center have been finalized.

- *Creation of a talent register to create a record of Ugandan personnel for the current project and for subsequent projects post oil and gas development*
- *Establishment of the supplier database to create a prequalification framework for Uganda suppliers of goods and services to the oil and gas project*
- *Support to specific sectors, including steel products, hazardous waste management, PPE and agriculture.*

172. **The ongoing initiatives have potential to provide a significant contribution to development of national content in Uganda.** We note that it will also be essential for the IOCs to ensure that recommendation #1 of the IBS, communication of the oil and gas project demand, is implemented. IOCs are the only ones who possess this information and they need to make procurement plans known to the local suppliers well in advance. With appropriate notice of



upcoming opportunities, local suppliers could look for financing and undertake investments in time before the actual procurement for the contracts starts.

173. **In addition to joint activities, each IOC has also taken specific actions to target education and employment of Ugandans and enterprise development.** The section below discusses these efforts in detail.

### **Total E&P Uganda**

- As part of their human resource strategy, Total E&P Uganda has, since its inception, launched an intensive recruitment campaign for national employees. Today, more than 80 percent of Total E&P Uganda direct and indirect staff are Ugandan. The company currently employs approximately 250 direct staff out of which about 60 percent are Ugandans, employed in positions varying from engineers to personal assistants, both in Kampala and in the area of operations. In addition, more than 2,300 personnel have been employed by the company's contractors in 2013, mostly in the field, out of which more than 80 percent are Ugandans<sup>53</sup>.
- Total E&P Uganda is also working towards building capacity of its national employees. The company's education commitment is based on three main areas: contributing the education in Uganda; anticipating future human resource needs by prioritizing the employment of local talent; and building networks of partners in the education sector.
- Total educational offerings include the following:
  - *Total international scholarships.* These scholarships target outstanding students who are willing to enroll in Bachelor's or Master's degree programs in a wide array of disciplines, from petroleum engineering to economics and management. Students who successfully completed these programs are employed by the company. In 2012, there were 5 beneficiaries of this program and 2013- 4 beneficiaries who were enrolled in top universities of France, the UK and Nigeria. After successful completion of these programs they joined the company.
  - *Total local scholarship program.* This scholarship program targets students born and who have studied in the districts where Total E&P has its operations (i.e., Albertine region). The program sponsors 20 best performing students in science subjects in the Uganda Certificate of Education to finalize their secondary education in some of the top schools of Kampala. Five students are selected from each of the districts of the Albertine Region (Nwoya, Buliisa, Nebbi and Masindi).
  - *Total Quai D'Orsay scholarship program.* This program targets civil servants in Uganda government interested in pursuing further education in oil and related fields. The program is established in partnership with the French Embassy in Uganda. During the last several years, beneficiaries from the Ministry of Finance and Development Planning, Ministry of Tourism, Wildlife and Antiquities, Ministry of Energy and Mineral Development and other ministries sponsored to pursue Master's degrees in France.
  - *MIT Empowering the Teacher Program.* This program allows outstanding young teachers from African universities to spend a semester at MIT where they observe

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<sup>53</sup> Total E&P Confident to Beat Oil Timeline. The Weekly Observer. February 18, 2014

instruction, develop courses and interact with MIT faculty. 2 Ugandan teachers will be sent to MIT in 2014 and 5 will be sent in 2015.

- *Total Professeurs Associes*. This program was established at the Group level and operates as a non-profit organization. Member professors are working or retired Total Group employees who lecture in their field of expertise. In Uganda, lectures are delivered to students under the MoU signed with partner universities.
- *Total Uganda internships*. 4 students interned with the company in 2012 and 5 students- in 2013.
- *Total Summer School*. Total organizes an annual one week event in France for over 120 students from all over the world to discuss and analyze major energy issues and challenges. Since 2012, 4 students from Uganda have attended the event.
- *Graduate Management Trainee Program*. This program aims to recruit fresh graduates under the initial eighteen months contracts. Every year, approximately 10 trainees are recruited and exposed to the company's operations. Since inception, 67% of trainees received full time employment with the company upon completion of the program.
- *Total Education and Energy Seminar*. This seminar, which takes place every 18 months, brings together 70 university professors from best universities around the world to take part in a weeklong session to discuss major energy challenges, alongside Total key executives and international experts. In 2012, Uganda's representative, Dr. Tiberindwa, Dean of the Geology Department at Makerere University in Kampala.

## **Tullow**

- Tullow noted in its 2012 Corporate Social Responsibility (CRS) report that up to 88 percent of its staff in Uganda are Ugandans. In 2012, Tullow spent US\$ 47.5 million with local suppliers. US\$ 44 million was spent on payroll for Ugandan employees<sup>54</sup>.
- Tullow also made a US\$ 600,000 discretionary investment to open an enterprise center in Hoima and funded Traidlinks, an organization undertaking enterprise development and agriculture supply chain activities. Traidlinks is discussed in detail later in this report.
- In order to help suppliers achieve supplier pre-qualification and compete for business opportunities, in 2012 Tullow held 'closing-the-gap' seminars in Uganda and Ghana to help local companies understand the requirements of the oil and gas industry.<sup>55</sup> It also held a logistics suppliers' forum in 2011, which 320 people representing 103 organizations attended<sup>56</sup>.
- Tullow has also instituted its Group Scholarship Scheme. Under this program, students have left for the UK to pursue Master's degrees in various fields in the oil and gas industry. The scheme is run through a partnership between Tullow Oil and the British Council<sup>57</sup>.

## **CNOOC**

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<sup>54</sup> Tullow 2012 Corporate Responsibility Report

<sup>55</sup> Ibid

<sup>56</sup> Haggai Matsiko. *Battle for oil contracts*. Independent. April 19, 2013

<sup>57</sup> Tullow lets 41 Staff Go. Daily Monitor (Uganda). 3/6/2014

- CNOOC has a total 482 suppliers on file, 285 of which are Ugandan<sup>58</sup>
- In 2013, CNOOC commenced a one year sponsorship program to support 70 students who enrolled for the Basic Skills Training Program at the Nile Vocational Institute Bishop Mukasa Center in Hoima district. The sponsorship covers all learning costs. The students receive training in a number of vocational fields, including metal fabrication, welding, electrical installation, plumbing and masonry<sup>59</sup>.
- CNOOC has also instituted an international scholarship program 2014. It offers opportunity for 3 Bachelor's Degree scholarships (in Petroleum Engineering) and 2 Master's Degree scholarships (in Oil and Gas Wells Engineering and Field Development). The host school is China University of Petroleum.

174. **The analysis of the IOCs' national content support initiatives shows that a number of these interventions have been driven by the CSR.** CSR activities, through which the IOCs try to give back to the community, mostly relate to providing scholarships, internships and sponsorships to talented Ugandan students. As these are not profit driven, limited resources are allocated to them and they are usually rather few in number. These initiatives are not expected to achieve a significant impact in terms of recruiting locals, but nevertheless they provide great opportunities for the select few qualified Ugandans. It is up to the government to ensure that more locals get appropriate qualifications to be able to get jobs with the IOCs. A relatively unique CSR initiative is opening of an enterprise center in Hoima to develop linkages between local farmers and Tullow camps (described in more detail later in this report). While this center's impact is very small, it does provide opportunities for local farmers to build up their capacity and sell some produce to the oil camps to benefit from the oil industry development in their area.

175. **IOCs have also initiated a number of profit driven activities to support national content development in Uganda.** IOCs are expecting to benefit from them financially (as opposed to simply giving back to the community), which makes them more inclined to pursue them. Generally speaking, these are the "win-win" initiatives for both the IOCs and the local private sector. They can actually lead to larger scale and more impactful support, compared to CRS for which corporations can only allocate limited resources.

176. **IBS undertaken by the IOCs was a profit driven initiative to determine what capacity exists in the market and which goods/services are expected to be provided locally.** The IOCs realize that sourcing goods and acquiring services from within Uganda would be preferred if local capacity exists. Local sourcing would be preferred for the local private sector as well, because businesses would get an opportunity to get more orders and potentially expand their operations. The IBS demonstrated that in some sectors, adequate capacity indeed exists and can be leveraged, while other sectors need urgent support to be able to meet the quantity and quality requirements. The initiative to establish the industry enhancement center, which came out as one of the recommendations of the IBS, aims to significantly enhance capacity of suppliers in Uganda to be able to meet the requirements of the IOCs, bid for contracts and win them. This will benefit both the IOCs and the local businesses. Initiatives to develop the supplier database and talent register also provide benefits to both the IOCs and the local private sector. Through these registers, IOCs

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<sup>58</sup> Oil: Local Firms Still Missing Out. New Vision, May 16, 2014

<sup>59</sup> Uganda: CNOOC Offers Seventy Scholarships. East African Business Week (Kampala). March 18, 2013

will be able to obtain information on the skills and goods/services available locally and ultimately employ more locals and source more goods locally.

***D. DONOR SUPPORT TO THE OIL SECTOR:***

177. **Uganda has received support from the Royal Government of Norway over a number of years.** The development of the National Content Policy is supported by the Norwegian Oil for Development program, “Strengthening the Management of the Oil and Gas Sector in Uganda”, 2009 – 2014. This is a government funded program that aims to support the development of Uganda’s emerging oil and gas sector. Through the program, the study “Enhancing National Participation in the Oil and Gas Industry in Uganda”, has also been supported.

178. **There also exists an informal donor working group working on issues of transparency and accessibility in the oil sector.** The group was started in July 2013 and current participants include Royal Government of Norway and DFID. Democratic Governance Facility has also recently expressed an interest in joining this group.

179. **The World Bank’s portfolio also includes a number of activities which already support or can be leveraged to support the development of the oil and gas sector in Uganda and enhancement of local capacity:**

- **Investment Project Financing:**
- ***The Skills Development Project***, currently under preparation, seeks to improve capacity of institutions to deliver quality and relevant skills training programs in a number of sectors, including the oil and gas.
- ***The Albertine Region Sustainable Development Project*** which has been approved by the World Bank and is currently pending approval by the Parliament of Uganda, will finance the upgrading of an approximately 100 km stretch of road from Kyenjojo to Kabwoya which forms part of the 238 kilometer Kyenjojo-Hoima-Masindi-Kigumba road connecting the districts of Kyenjojo, Kibaale, Hoima, Masindi and Kiryandongo in Western Uganda. The improvement of the road will be essential for the development of the oil and gas sector in the area. The project also includes a component on local access, planning and development, which will provide financing for the development of local economic infrastructure (e.g., markets, fish landing sites, storage facilities) to strengthen supply chains. This component can be leveraged to strengthen the capacity of local suppliers to participate in the oil industry.
- ***The Uganda Competitiveness and Enterprise Development Project (CEDP)***, currently under implementation, includes a matching grant facility of US\$ 8 million which can be used by MSMEs in a number of sectors, such as coffee, tourism, grains and pulses, horticulture, edible oils, fisheries, and IT/business process outsourcing, to access funds for business development services (BDS). BDS eligible under the project include management training, acquisition of quality certification, business plan preparation, production

techniques, marketing, record keeping, and financial management. Oil and gas suppliers in these industries will be able to access these funds to develop their capacity.

- **Technical assistance to support the GoU in national content development:**
- *The Capacity Needs Analysis for the Oil and Gas Sector in Uganda*, currently under preparation, aims to assess the capacity needs of the oil and gas sector in Uganda, take stock of the existing institutional and human capacity, and prepare a recommended strategy to assist government in addressing the identified weaknesses. As the result of the study, a capacity development plan will be prepared that will act as a roadmap for intervention by government and other stakeholders in building Uganda's human capacity to meet the needs of the oil and gas sector. Key areas of focus will include development of the curriculum plan; defining the role of public and private institutions in the implementation of the curriculum; preparation of the development plans for key public institutions responsible for development of petroleum-related skills; recommendations of upgrading the UPIK into a Center of Excellence in the oil and gas sector; and strategies for collaboration between different stakeholders.
- *Roundtable Dinners on National Content*. As mentioned earlier in this chapter, the World Bank has supported a cycle of roundtable dinners in Kampala for a selected group of key national content stakeholders.
- *Working Group on the Establishment of the IEC*. As mentioned earlier in this chapter, the World Bank has been part of the working group on the establishment of the Industry Enhancement Center. The working group also includes PEPD, MITC and three IOCs.

## 2.5 OBSERVATIONS AND RECOMMENDATIONS

180. **The analysis conducted in this chapter has demonstrated that oil and gas suppliers in Uganda, especially MSMEs, are facing many challenges.** These include lack of information on opportunities in the oil and gas sector; business environment unconducive to private sector growth; challenges with access to credit; inadequate infrastructure; difficulties with meeting IOC quality standards; difficulties with meeting high volume/quantity requirements; limited business knowledge of suppliers; and other constraints.

181. **At the same time, the number of local content initiatives in Uganda to alleviate these constraints is rather large and content diverse.** It is rewarding to see that the GoU, the IOCs and other stakeholders have made a significant effort to ensure that Ugandans can participate in the oil and gas industry. **Table 9** below provides mapping of constraints identified for participation of Ugandans in the oil and gas sector against ongoing initiatives.

**Table 9. Mapping of Constraints in the Oil and Gas Sector vs. Ongoing Initiatives**

#	Constraints	Ongoing Initiatives	Additional Support Required
1	Information asymmetries (lack of visibility over projected demand, timeline of different phases of oil field development, and current opportunities in oil and gas for local suppliers, especially MSMEs)	-JVPs initiative to communicate demand - Working Group on the establishment of the IEC comprising of the GoU, JVPs and international donors	- PEPD to ensure that information is communicated to suppliers in due course. Establishment of a website with oil and gas opportunities could be quite useful. Information could also be sent to mobile phones of suppliers who signed up for such a service to ensure that MSMEs can get information quickly - Ensure that the IEC is established and becomes operational - Particular attention needs to be devoted to making sure that suppliers in the very bottom of the supply chain (e.g., MSMEs) are aware of opportunities and able to participate in the oil and gas industry
2	Challenges with access to investment and working capital for oil and gas suppliers	- Discussions regarding the establishment of the partial credit risk guarantee fund - Efforts of the GoU, JVPs and international donors to establish the IEC which would provide assistance to suppliers with preparation of business plans to apply for financing, among other things	- Access to finance challenges of suppliers can be alleviated through establishing risk-sharing facilities, availing credit lines for working and investment capital, carrying our pension system reform, strengthening financial infrastructure, and capacity-building of enterprises and financial institutions - Opportunities need to be explored to assist local suppliers in forming joint ventures with foreign companies - Opportunities need to be explored for IFC investments in qualified suppliers meeting IFC investment requirements
3	High quality standards of the oil and gas industry and lack of consistency among standards of the JVPs operating in Uganda	- Establishment of TC16 - Efforts of the GoU, JVPs and international donors to establish the IEC	- Capacity of the TC16 members needs to be strengthened to ensure that the process is completed in the near term - Matching grants need to be provided to enterprises in priority sectors for national content development to acquire certifications
4	Challenging business environment	Support provided through CEDP business environment and land administration reform components	More support is needed to improve important aspects of business environment in order to alleviate constraints

5	Inadequate infrastructure	Support provided through the Albertine Region Sustainable Development Project	<ul style="list-style-type: none"> <li>- More support is needed to remove bottlenecks throughout the country.</li> <li>- Essential infrastructure needs to be built in the Albertine Region</li> </ul>
6	Lack of skilled oil and gas workers and low capacity of oil and gas suppliers	<ul style="list-style-type: none"> <li>- Efforts of the GoU, JVPs and international donors to establish the IEC</li> <li>- Skills Development Project</li> <li>- Capacity Needs Analysis for the Oil and Gas Sector in Uganda</li> <li>- Establishment of UPIK</li> </ul>	<ul style="list-style-type: none"> <li>- IEC needs to be established to provide capacity-building to enterprises.</li> <li>- Efforts need to be devoted to attracting international companies to set up operations in Uganda and form joint ventures with local companies to facilitate technology transfer</li> <li>- Capacity-building needs to be provided to BDS providers (trainers, consultants) to strengthen their capabilities and provide more practical value to the MSMEs</li> </ul>
7	Award of contracts has not always been fair (from the standpoint of local suppliers)	PEPD undertakes audits after contracts were awarded to determine if there were any irregularities	<ul style="list-style-type: none"> <li>- Capacity of PEPD for monitoring of contract awards needs to be increased in terms of both number of staff and robustness of the process</li> <li>- Monitoring needs to be performed at different stages of procurement process to ensure that appropriate procedures are followed and appropriate remedial actions are taken in a timely manner</li> </ul>
8	Contracts are very large which prevents smaller local suppliers from bidding for them (even when they are qualified technically)	-	<ul style="list-style-type: none"> <li>- Regulations need to ensure full, fair, and reasonable access to procurement opportunities for domestic suppliers</li> <li>- Efforts need to be made to unbundle large contracts to enable more suppliers to compete</li> </ul>

182. As evidenced by the analysis presented in the table, most of the constraints are currently being addressed but for several constraints significant additional support is required. For instance, capacity of PEPD needs to be strengthened to perform monitoring of contract awards, more support needs to be provided to build essential infrastructure in the Albertine Region, and efforts need to be undertaken to ensure that the industry enhancement center is designed and operational. Initiatives also need to be undertaken to address access to finance constraints.

183. It would be important to ensure that access to finance is significantly improved for oil and gas suppliers in Uganda to enable local enterprises to participate in this sector as suppliers. The array of instruments to mobilize funding for O&G suppliers, especially long-term, needs to be considered by the GoU.

184. **Given that there are different categories of suppliers in Uganda<sup>60</sup>, it would be important to structure interventions which would benefit all of them.** On the one hand, it would be possible to channel credit lines through participating banks to provide funding to the qualified borrowers. These would largely be less risky medium-sized borrowers and some qualified small enterprises with well-prepared business plans.

185. **Although the banking system currently does not have a challenge with funding qualified borrowers, banks do recognize that the funding they could provide would be only short-term.** The greatest benefit of the credit line for the borrowers would be from the standpoint of longer maturity, to enable them to make larger investments, for instance in food processing plants. Another significant benefit would be prioritization of certain sectors for receiving financing, which would otherwise not be serviced by banks due to multiple reasons (e.g., lack of knowledge of particular sectors and challenges with assessing the risks of financing).

186. **In parallel with these immediate initiatives, additional reforms could be undertaken to increase the availability of long-term finance.** Support can be provided for pension system reform: a well-functioning pension system remains the cornerstone for the development of longer-term financing for private investment. The development of capital markets and non-bank financial institutions would be very important to increase the availability of long-term finance. Finally, strengthening of the bank regulation and supervision would be essential from the standpoint of safeguarding the banking system from negative consequences of higher credit growth and increasing trust of the population in the banking system, which would lead to mobilization of deposits from the population, including for longer maturity.

187. **To address the needs of smaller borrowers, a risk-sharing facility could be set up.** It would provide an opportunity for enterprises which do not have enough collateral to obtain the funding. As MSMEs usually lack collateral (especially immovable), they would greatly benefit from this fund. There could be an opportunity to link the risk-sharing facility to the credit line (i.e., businesses which benefit from the risk-sharing facility would be able to received financing via a credit line).

188. **The IEC could play a significant role in supporting local enterprises in securing financing.** The center would provide trainings to strengthen the ability of enterprises to apply for loans and potentially collaborate with financial institutions to provide financing to successful “graduates” of the program and help to develop a pipeline of clients ready for IFC investment or credit lines.

189. **Besides addressing the general constraints for all oil and gas suppliers (e.g., improvement of business climate, enhancement of visibility of demand from the IOCs), it is also important to identify priority sectors for development of the national content and design interventions to address their constraints.** Vertical interventions which benefit priority sectors

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<sup>60</sup> Suppliers could be grouped into 4 main categories: (1) large established companies (for example, large agro-processors) which meet IOC quantity and quality requirements; (2) medium companies which are well established but need significant investment to upgrade their equipment to meet IOC standards; (3) MSMEs which have some positive attributes to perform services and produce goods required by the IOCs but lack management capacity and ability to produce in large quantities; and (4) MSMEs which currently lack capacity to supply the IOCs.



could help to achieve more impact as they are more focused. These can be infrastructure investments in certain key areas, enhancement of quality infrastructure for particular industries and other interventions. IBS has already identified priority sectors for national content development, and it would be essential to structure interventions which could address their constraints.

190. **It is important to develop a strategy to facilitate labor mobility and development of intersectoral linkages for the periods after the construction phase comes to an end and demand from the IOCs significantly goes down.** When selecting priority sectors, focus needs to be on those sectors which can supply other industries (not only oil and gas) and/or other countries. There will be a number of infrastructure projects in Uganda and other countries in the region, and there is a high likelihood that these suppliers will continue to operate their businesses successfully as their goods and services will be competitive. The expectations of the local enterprises will need to be properly managed to ensure that they realize that IOC demand for products and services will only be for a finite period of time and they need to diversify their client base as much as possible from the start.

191. **Another imperative consideration is selection of priority regions for national content development.** Overall, we would expect that suppliers from Kampala will play the leading role in terms of supplying the oil and gas industry, as the range of businesses in this area is quite diverse. The IEC would be expected to be headquartered in Kampala to accommodate entrepreneurs located in the capital and nearby districts. At the same time, satellite centers would be set up on one or several districts of the Albertine Region where oil fields are being developed to ensure active participation of enterprises in those districts in supplying the oil camps.

192. **Similar approach was taken by a number of other countries which set up enterprise development centers.** For example, in Chad the main center was located in the capital N'Djamena with satellite centers in Doba, Moundou and Sahr in the South. Setting up the main center in the capital helps to ensure sustainability. Once the demand from the oil sector goes down, the center can serve other industries, and its location in the capital where multiple industries are present facilitates this transition. Following the decline in oil related activities, the center in Chad later became a unit of the chamber of commerce. A similar approach can be pursued in Uganda. In the beginning, the center will focus on the oil industry but once the demand starts declining, focus can be placed on other emerging industries.

193. **The possibilities for extensively involving the private sector of the Albertine Region in the oil industry as suppliers need to be explored.** The population in the Albertine region is primarily involved in agriculture and therefore opportunities to involve them need be primarily explored in supplying food to the oil camps. Interventions need to be designed to alleviate infrastructure bottlenecks and develop capacity of these suppliers. The next chapter provides a detailed analysis of constraints faced by suppliers in the Albertine Region and proposes several approaches to maximize participation of the region in supplying the oil camps.

## CHAPTER 3. VALUE CHAIN ANALYSIS OF AGRICULTURE AND FISHERIES

### 3.1 CURRENT STATE OF THE AGRICULTURE SECTOR IN UGANDA

#### Overview

194. **Uganda is a predominantly an agricultural economy in which agricultural production comes almost exclusively from millions of rural based smallholders, mostly working on 2-3 hectares of land, using traditional methods of cultivation and family labor.** The sector is central to Uganda's economic growth and the reduction of poverty, employing more than 70 percent of the total labor force and contributing more than 21 percent to GDP. Although its share of GDP has been declining, the sector remains vitally important to the functioning of the economy as it provides the basis for growth in other sectors such as manufacturing and services. It is a source of food supply and raw materials, a supplier of foreign exchange, a market for non-agricultural output and a source of surplus for investment<sup>61</sup>. The sector also has the potential to significantly increase its contribution to economic growth and poverty eradication, as it is the main economic activity in which the vast majority of rural households in Uganda are engaged.

195. **Global evidence suggests that growth originating from agriculture is more effective in raising incomes of the poorest third of the population than that from non-agricultural activities.** The reduction in rural poverty from more than 60 to 29 percent between 1992 and 2010 was driven by agriculture<sup>62</sup>. Further research has revealed that countries may not be able to sustain a rapid transition out of poverty without increasing agricultural productivity<sup>63</sup>. For Uganda this transformation is even more critical since agriculture is the primary source of livelihood for the majority of the labor force. However, it is a major concern for the GoU that production and productivity in most of the crop sub-sectors remains low, leading to poor returns to farmers. The low productivity in the sector has also exacerbated the problem of food insecurity and malnutrition.<sup>64</sup>

#### Food Crops Sub-sector

196. **According to the results of the Agricultural Census 2008/09, Uganda grows 17 major food crops.** These crops include cereals (maize, millet, sorghum, rice); root crops (cassava, sweet potatoes, Irish potatoes); pulses (beans, cow peas, field peas, pigeon peas); oil crops (groundnuts, soya beans, simsim), and plantain bananas (food, beer, sweet types)<sup>65</sup>. The total area planted in 2012 for the above crops was 5,729,000 ha. Production volumes of select food crops (per UBOS) are presented in the **Table 10** below.

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<sup>61</sup> MAAIF, 2008

<sup>62</sup> WB, Inclusive growth, 2012

<sup>63</sup> Timmer & Akkins, 2008 cited in WB, Inclusive growth, 2012

<sup>64</sup> Ministry of Finance, Planning & Economic Development, National Budget Framework F/Y 2014/15, June 2014

<sup>65</sup> UBOS, 2013

**Table 10. Production of Select Food Crops in Uganda, 2008-2012 (thousand tons)**

<b>Crop</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Bananas	4,229	4,522	4,694	4,699	4,503
Maize	2,315	2,355	2,374	2,551	2,734
Rice	178	206	218	233	212
Millet	275	250	268	257	244
Sweet potatoes	1,794	1,943	1,987	1,798	1,852
Irish potatoes	147	162	167	180	185
Cassava	2,876	2,952	3,017	2,712	2,807
Beans	912	925	949	915	870
Ground nuts	230	258	276	327	295

197. **About 49 percent of the food produced in Uganda is marketed or bartered for subsistence consumption outside the market system.** The major cash crops for the economy are: coffee (accounting for 272,000 ha and generating about US\$300 million per annum), cotton (previously the main export crop, earning up to US\$30 million a year), tea (grown on 20,570 ha, but mostly for export markets earning about US\$30 million a year), tobacco (grown on 11,590 ha and now earning over US\$10 million a year), sugar cane (grown almost exclusively for the local market) and cocoa (which is a relatively new crop).

198. **Growing regional export markets, rising incomes and rapid urbanization have entrenched a large potential for enhancing agricultural production and productivity in Uganda.** However, in spite of the commitment of significant public resources to exploit this potential, the agricultural sector has continued to perform below expectations growing on average at 4.1 percentage points lower than the national economy since 2007<sup>66</sup>. A major factor in this disappointing performance according to the GoU is that smallholder farmers who dominate this sector face many constraints including unpredictable climate, poor quality inputs, pests and diseases, inadequate storage, lack of relevant knowledge and the use of inappropriate technology, all of which undermine the quantity and quality of their produce resulting into lack of stability of their household incomes.

199. **The disappointing performance also implies that existing agribusiness arrangements have failed to expand and invest in more mechanized processing of agricultural commodities, resulting in low value addition and low output growth in the sector.** The proportion of Uganda's agricultural commodities that undergo processing is believed to be less than 5 percent<sup>67</sup>. Accordingly, there is need to develop well-functioning integrated value chains for agricultural commodities, which requires structures that facilitate the alignment of agricultural produce at the local level to the production facilities of agribusinesses. The key policy objectives that the agricultural sector is seeking to achieve in the medium term include increasing incomes of farming households; creating on-farm and off-farm employment opportunities; promoting value-addition to agricultural products and promoting domestic and external trade in agricultural products.

<sup>66</sup> Ministry of Finance Planning & Economic Development, Background to the Budget 2013/14, June 2013

<sup>67</sup> Ministry of Agriculture, Animal Industry and Fisheries, Agricultural Sector Development Strategy Investment Plan: 2010/11 – 2014/15, July 2010

## **Horticultural Sub-sector**

200. **With increasing demand in both the local and export markets, fruit and vegetable production in Uganda has been increasing over the years, and has reached a level where the country is the second largest producer of fresh fruits and vegetables (FFVs) in SSA, producing more than 1.1 million tons per year.** Most fruits and vegetables are grown by smallholder farmers under rain-fed conditions and, as the result, the seasonality in production sometimes affects supply. Due to good soils and a favorable climate, Uganda has the potential to produce a wide range of fruits and vegetables for the larger part of the year.

201. **At present, fruit production is purely in the hands of smallholder farmers in the Southern, Central and Eastern regions.** Pineapples are by far the most developed and widely grown commodity in the fruit crop range and value chain in Uganda.

202. **Most of Uganda's FFVs are exported to the EU, in particular to Belgium and the Netherlands.** The variety of value added fruits in Uganda include pre-cut, sliced, proportioned, pre-packed and juice processing fruits which are most preferred in European markets. The key players in the export of fruits and vegetable from the country include Flona Commodities; Fruits of the Nile; Envalert Uganda; Amfri Farms and Jali Oganic (U) Ltd. Amfri Farms exports both fresh and dried fruits and vegetables while the other four exporters mainly deal with dried fruits.

203. **There are a number of challenges faced by the sector.** They include unpredictable weather, poor transport infrastructure, weak pest and disease control, and lack of appropriate packaging facilities.

## **Livestock Sub-sector**

204. **The livestock sub-sector makes a significant contribution to the agriculture sector and the Ugandan economy as a whole, contributing 5 percent to the GDP and 18 percent to the agriculture GDP.** While the agriculture sector as a whole has been declining overtime, the livestock sub-sector has maintained a steady growth at around 3 percent per annum. According to the UBOS, the sector is comprised of cattle, poultry, goats, sheep and pigs with an estimated population of 12.8 million cattle, 45.9 million poultry, 14.0 million goats, 3.8 million sheep and 3.6 million pigs.

205. **Cattle farming, which is largely subsistence, is the largest livestock enterprise in Uganda for both diary and meat production.** It supports an estimated 1.7 million households as a source of food as well as household income.

206. **Most of the meat consumed in Uganda is sold through roadside markets and market stall butcheries, which handle about 130,000 tons accounting for about 80 percent of all retail sales of meat in the country.** There is a general consensus that the quantities of beef demanded in Uganda are much higher than what the market is supplying. Consumption of beef in Uganda is estimated at 6 kg per person per annum, which is very low compared to other countries in the region like South Africa (14 kg), and Kenya (12 kg).

207. **The formal market selling processed meat is dominated by a single company, Fresh Cuts.** It offers a full range of meat products including prime cuts, plastic packed retail cuts, sausages, ham, and minced meat all products being available in both chilled and frozen form. Fresh Cuts controls about 85 percent of Kampala’s processed meat market<sup>68</sup>. The other firms dealing in processed beef are Sausage King and Your Choice, with about 15 percent of the market share.

208. **The dairy industry is based largely on smallholder farmers who produce for home consumption selling to the market the little surplus that remains (estimated at 1.3 billion liters in 2011).** The dairy industry has maintained an impressive growth of 8 to 10 percent per annum over the last several years, which could have been higher had it not been for the barriers inhibiting productivity enhancement.

209. **Up to 90 percent of the milk traded in Uganda is handled by the informal sector making unprocessed milk the most commonly consumed dairy product in the country.** Processed milk which is mainly traded in urban centers is distributed through supermarkets and grocery shops, and is dominated by pasteurized milk accounting for more than 80 percent of all processed milk products sold.

210. **The main actors in the formal sector include Sameer Agriculture & Livestock Ltd (SALL), JESA and GBK producing 375,000, 30,000 and 20,000 liters per day respectively.** Their installed capacity significantly exceeds production (for instance, for Sameer Agriculture & Livestock Ltd, installed capacity is 550,000 liters per day and production is only 375,000)<sup>69</sup>.

211. **Chicken rearing is the main type of poultry production in Uganda, accounting for 95 percent of all poultry.** The enterprise is an active source of livelihood for about 3.2 million households. The major actors among the large scale chicken producers include Ugachick, Biyinzika, Bukomo and Kagodo who among themselves control 80 percent of the market. There is only one commercial slaughter house in Uganda owned by Ugachick in Kampala.

### **Fisheries Sub-sector**

212. **The fisheries sector is the second most important foreign exchange earner after coffee, with investments estimated at US\$ 200 million and more than US\$100 million worth in exports annually (Table 11).** More than 15 percent of Uganda’s surface area is covered by open water dominated by five major lakes namely Victoria, Albert, Kyoga, Edward and George. These lakes are home to the country’s main fishing grounds supporting a population of more than 1.2 million (UBOS, 2013).

**Table 11: Exports of fish & fish products during the period 2009 – 2012<sup>70</sup>**

Year	2008	2009	2010	2011	2012
Value (USD Millions)	128.7	111.2	127.7	136.2	128.3

<sup>68</sup> Agriterra, 2012

<sup>69</sup> Ibid

<sup>70</sup> UBOS

213. **Lake Victoria, the largest tropical lake and second largest fresh water lake in the world contributed 46 percent of the annual catch in 2012, followed by Lake Albert with 38 percent of the catch (152,600) (Table 12).** There are more than 350 fish species in the national waters, dominated by Nile perch and Tilapia. The fishing activity is artisanal, mainly based on small vessels and the traditional dug-out canoe.

**Table 12: Fish Catch by Water Body, during the Period 2009-2012 (tons ‘000s)<sup>71</sup>**

Lake	2009	2010	2011	2012
Victoria	221.3	0	169.8	185.2
Albert	56.5	0	163.6	152.6
Kyoga	60	0	63.7	44
Edward, George & Kazinga Channel	8.8	0	6.7	5.2
Other Waters	20	0	17.8	16.5
<b>Total</b>	<b>366.6</b>	<b>0</b>	<b>421.6</b>	<b>403.5</b>

214. **Although fish exports from the national waters enjoyed a steep rise in the 90s, from a modest 1,664 tons in 1991 to a high of 39,201 tons in 2005, the trend has since peaked and a worrying downward trend set in, dropping to a low of 24,965 tons in 2008.** The downward trend has been blamed on illegal fishing gear catching fish that is too immature for commercial processing. A survey of the informal fish trade by the Bank of Uganda and UBOS in 2007<sup>72</sup> indicated that fish worth US\$33 million was exported informally to the neighboring countries of DRC, Sudan, Kenya and Rwanda in 2006 alone. Fish was ranked highest (14 percent) among all informally traded goods from Uganda in that year (National Development Plan (NDP), 2010).

215. **Uganda has a number of fish processing factories.** There are twenty approved and certified fish processing factories, out of which eighteen process chilled and frozen fish products for export, while two process cured fishery products (smoked, salted and sun dried) for export. There are also five registered small scale processing units that handle fish by products, mostly dried fish maws destined mainly to Asian countries and the Middle East. There are also two cold stores at the airport offering cold chain facilities just before freight or shipment.

216. **Due to declining fish stocks, financial constraints and other factors, out of the twenty certified fish processing factories, three have completely closed down while the remaining processors are operating at 30 percent of installed capacity<sup>73</sup>.** Some of the key players in the fish processing sub-sector include Byansi fisheries Co. Ltd.; Fish Ways (U) Ltd.; Fresh Water Fish Industries Ltd; Gomba Fishing Industries Ltd.; Greenfields Uganda Ltd; Icemark-Africa Ltd.; and Tropical Fish Industries Ltd.

217. **The main barriers inhibiting competitiveness in the sector include:**

- a) **Trade in immature fish**, which creates demand for under-age fish, exerting pressure on the resource.

<sup>71</sup> Ibid

<sup>72</sup> UBOS and Bank of Uganda (BOU), Informal Cross Boarder Trade (ICBT), Nov 2008

<sup>73</sup> Department of Fishery Resources Annual Report, 2010/11

- b) **Dwindling catches:** As a result of over-fishing among other issues, the catch from the national waters has been declining over the years.

218. **Since 2003, some actions have been taken to address these constraints.** Fisheries management has shifted from a “command and control” mode by the center to a system based on recognizing the role that communities can play. In this regard, co-management institutions have been put in place. Such institutions include Lake Management Organizations established on Lakes Kyoga and George and some 630 Beach Management Units established and legally recognized on the lakes.

## **Aquaculture**

219. **Despite its long history dating back to the early 1950s, fish farming in Uganda has not developed beyond the small subsistence scale.** Smallholder farmers are still the most important actors in the aquaculture sub-sector in Uganda. While 80 percent of them started fish farming after the year 2000, most of the farms are earthen pond based, with the vast majority of the ponds covering an area of 100-500 square meters<sup>74</sup>. The Department of Fishery Resources (DFR) estimates that there are 25,000 fish ponds in the country, covering about 10,000 hectares with an annual production of ~100,000 tons<sup>75</sup>. According to the NDP and the Agriculture Sector Development Strategy and Investment Plan (DSIP), fish farming presents immense opportunities for the country’s socio-economic development in terms of livelihood, income and employment.

## **220. There are several barriers to enhancing competitiveness of the sub-sector:**

- **Use of inefficient production systems:** According to data collected at the Kajjansi Aquaculture Research Centre, while cage farming was found to yield up to 100 kg per cub meter, the yield of pond farming was only 0.2 kg per cub meter<sup>76</sup>. While ponds are still widely used in many parts of the world and can be productive if they are well constructed and well managed, in Uganda, ponds tend to be scattered and are far from each other making it difficult to disseminate new knowledge, and coordinate production and marketing.
- **Lack of knowledge:** Modern aquaculture is a high-technology activity and investors must get the right advice before starting fish farming. In the past, fish farmers in Uganda have fallen in the trap of believing ‘consultants’ and newspaper reports that indicated that fish farming requires little investment and results in huge profits.<sup>77</sup>
- **Subsistence production:** The current mode of aquaculture production is smallholder-dominated and non-market oriented, leading to low production and low productivity. Consequently, despite its existing potential, the current level of aquaculture production is not able to meet the local as well as the external market demand<sup>78</sup>.

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<sup>74</sup> Aganyira Kellen, Aquaculture: A Tool for Sustainable Development in Uganda. A Case study of Kigoowa Catholic Women’s Development Association in Kampala District, 2005

<sup>75</sup> DFR Annual Report, 2010/2011

<sup>76</sup> Rutaisire, et al., African Journal of Tropical Hydrobiology and Fisheries **12**: 74-77, Lake Victoria Fisheries Organisation, 2009

<sup>77</sup> USAID FISH Project, *Manual for pond production of Catfish*, Dec 2009

<sup>78</sup> National Investment Policy for Aquaculture Parks in Uganda, 2013

221. **Aquaculture parks are a possible model for improving this situation and they could be employed to achieve a critical level of production capable of meeting market demand.** Under this approach, farmers are encouraged to own fish farms individually but in the same location in order to achieve economies of scale, synchronized programing and well planned and predictable production.

222. **There have been some recent initiatives to promote aquaculture in Uganda.** Under its Agriculture Sector Development and Investment Plan, GoU has set a goal of meeting the country's fish requirements through increased aquaculture production from the current level of about 100,000 tons to a projected 300,000 tons by 2016<sup>79</sup>. As part of the roadmap for achieving this target, GoU intends to create 'concentrated aquaculture production areas' known as Aquaculture Parks (APs). This will create production thresholds that are required to overcome the major constraints and challenges that have resulted in under performance of the aquaculture subsector, including lack of requisite input supply industry and markets. The existing policy framework recognizes the PPPs as the most viable vehicle to move predominantly subsistence aquaculture production to commercial production. The Aquaculture Parks Investment Policy is based on the projected local, regional and international market demand for fish in the context of increasing market share of Uganda's fish.

### **3.2 CURRENT STATE OF THE AGRICULTURE SECTOR IN THE ALBERTINE REGION**

#### **Overview**

223. **The economy of the Albertine region where the oil discoveries have been made depends on agriculture, tourism and fishing.** The region's economy is heavily reliant on agriculture (involving over 90 percent of the population). The region, like most of the country, is endowed with a good climate, good soils, and favorable rainfall patterns able to support two crops a year. The map of the region is presented in **Figure 6** below.

224. **As is the case in the rest of Uganda, the majority of the region's farmers are smallholders.** They are growing tobacco, cotton and tea as the dominant cash crops, and maize, cassava, beans, groundnuts, and bananas as the dominant food crops that are also often sold for cash income. Compared to the national average of 31 percent in 2005, poverty levels in the region are rather high. Kibaale, Hoima, and Buliisa districts have 35.8 percent, 35.2 percent, and 33.8 percent of their populations respectively living below the poverty line. The total population for the five districts in the sub-region was estimated at 2.08 million in 2013 (**Table 13**).

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<sup>79</sup> Mugabira, M., et al, *National Investment Policy for Aquaculture Parks in Uganda*, 2013



Figure 6. Map of Bunyoro Sub-Region<sup>80</sup>

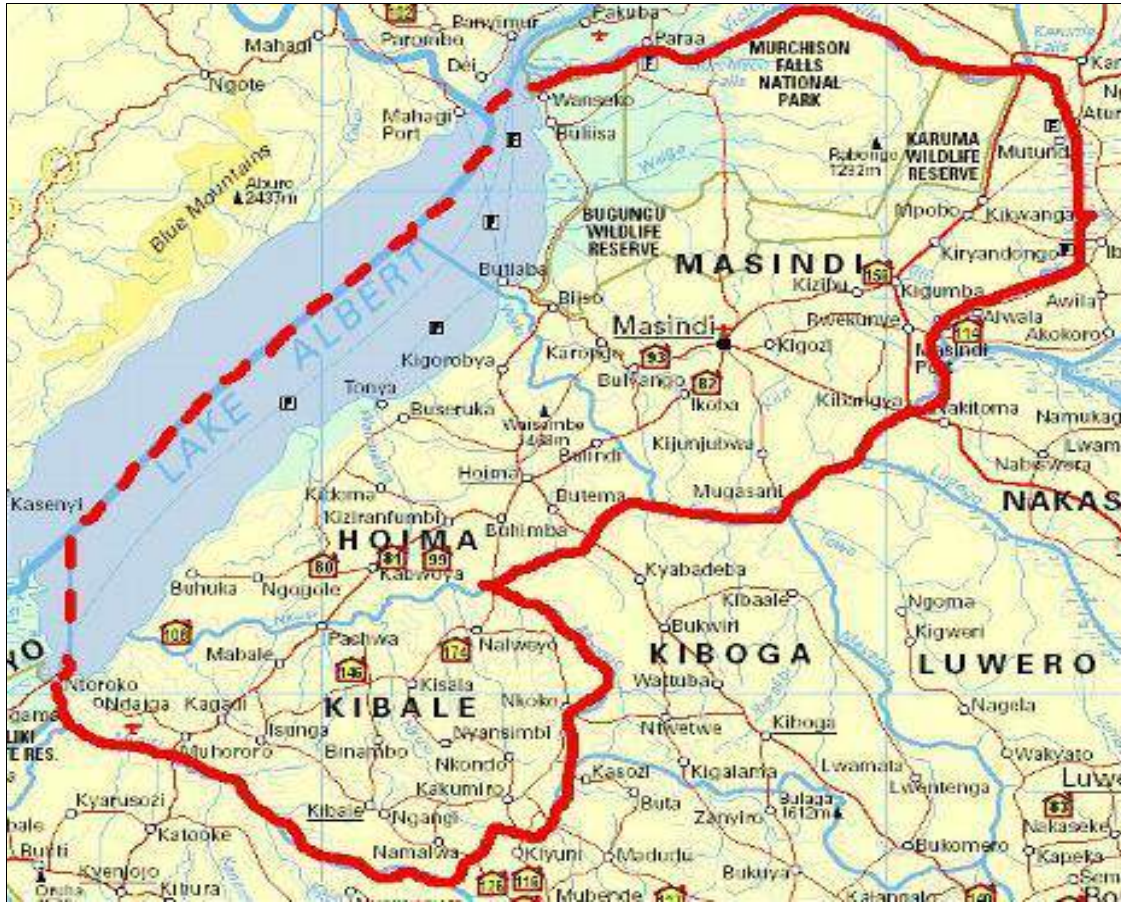


Table 13: Bunyoro Sub-region Mid-Year Projected Population for 2011, 2012 & 2013<sup>81</sup>

District	Census population		Mid-year Projected Population		
	1991	2002	2011	2012	2013
Buliisa	47,790	63,363	78,900	80,800	82,800
Hoima	197,851	343,618	523,400	548,800	575,100
Kibaale	220,261	405,882	646,500	681,300	717,500
Kiryandongo	83,405	187,707	301,000	317,500	334,500
Masindi	129,682	208,420	334,200	352,400	371,600
<b>Total</b>	<b>678,989</b>	<b>1,208,990</b>	<b>1,884,000</b>	<b>1,980,800</b>	<b>2,081,500</b>
National	16,671,705	24,227,297	32,939,800	34,131,400	35,357,000

<sup>80</sup> Source: <http://www.bunyoro-kitara.org/5>

<sup>81</sup> UBOS

## **Food Crops Sub-sector**

225. **By Ugandan standards, the districts of the Albertine region produce a significant volume of food.** While Kibaale appears to be the largest producer of food in the region, leading the other districts in the production of crops like bananas, beans, groundnuts and Irish potatoes, the other districts perform much better in the production of other crops, e.g. Masindi with maize, Hoima with cassava and rice (**Table 14**)<sup>82</sup>.

**Table 14. Food Produced by the Districts of the Albertine Region – 2008/9 (metric tons)**<sup>83</sup>

<b>Food crop</b>	<b>Buliisa</b>	<b>Hoima</b>	<b>Kibaale</b>	<b>Masindi</b>	<b>Total</b>
Maize	12,952	38,372	60,529	61,715	173,568
Rice	-	10,911	2,917	811	14,639
Cassava	27,748	60,932	48,094	39,515	176,289
Bananas	114	9,846	64,217	2,967	77,144
Sweet potatoes	837	26,838	15,239	14,786	57,700
Irish Potatoes	-	2,024	4,165	1,131	7,320
Beans	856	2,751	36,608	20,045	60,260
Groundnuts	56	3,778	12,473	7,708	24,015
<b>Total</b>	<b>42,563</b>	<b>155,452</b>	<b>244,242</b>	<b>148,678</b>	<b>590,935</b>
% of total	7%	26%	41%	25%	100%

226. **The performance of the region's districts compares well with the other districts both in the Western region and at the national level.** According to the 2008/09 Agricultural Census, the districts of Hoima and Kibaale were ranked 1<sup>st</sup> and 2<sup>nd</sup> largest producers of rice, and at the same time, Kibaale and Masindi districts were ranked 1<sup>st</sup> and 2<sup>nd</sup> largest producers of ground nuts among all the 19 districts of the Western region. Under the same census, Hoima, Kibaale and Masindi were ranked 1<sup>st</sup>, 4<sup>th</sup> and 5<sup>th</sup> largest producers of cassava, and in addition, Kibaale and Masindi were ranked 2<sup>nd</sup> and 3<sup>rd</sup> largest producers of maize in the Western region.

227. **Food production in the Albertine region is mainly in the hands of smallholder farmers.** Their primary focus is production for home consumption, taking to the market the little surplus, if any that remains, to raise funds with which to finance other household needs that have to be paid for in cash.

228. **Some NGOs as well as Government programs such as the National Agricultural Advisory Services (NAADS), have over the years tried to instill in the community the need to undertake farming as a business** with a view to encouraging communities to not just be content with meeting home consumption needs but to aim at expanding the acreage under their food crops in order to increase their surplus and ultimately their household incomes. As a result of these efforts, some households within the communities covered by these programs have undergone a paradigm shift and have increased the acreage under their food crops. In addition to expanding

<sup>82</sup> In this table, Kiryandongo district is covered under Masindi

<sup>83</sup> UBOS

the acreage under their food crops, some farmers endeavor to add value to their produce by engaging in some form of primary processing before taking it to the market. However, the vast majority are happy to sell their produce in its raw form, in some cases selling the produce when it is still in the field before it is harvested, leading to very low returns, thereby compromising the opportunity to maximize their household income. A review of the sector's existing value chains is presented in **Annex 7**.

**229. The main barriers to enhancing competitiveness in the sub-sector include:** unpredictable weather; low use of improved seed; low use of fertilizers both organic and inorganic; lack of access to tractor hire service; lack of access to finance; poor transport infrastructure; poor pest and disease control and lack of suitable storage facilities.

**230. There are a number of ongoing initiatives aimed at addressing barriers to enhancing competitiveness.** These include the following:

- **Irrigation:** GoU has invested in a number of major irrigation schemes across the country and is setting up 30 small scale irrigation demonstration sites in different parts of the country, including one in Buliisa.
- **Use of improved seed:** GoU supports the use of improved seeds and has been trying to ensure availability of improved seed through NAADS.
- **Use of fertilizers:** GoU supports the use of fertilizers and is in the process of finalizing the fertilizer policy and regulations; procurement of fertilizer laboratory analytical equipment; conducting field trials of different fertilizers; developing fertilizer user guidelines.
- **Other production and post-harvest handling related barriers:** GoU supports the improvement of post-harvest handling and mechanization of value addition processes for strategic cereals and legumes, root crops and tubers.
- **Lack of power:** The Rural Electrification Strategy (2013-2022) plans to extend energy supply to rural areas and small towns. The increase in energy supply will significantly enhance the growth of rural agro-processing industries which are currently affected by insufficient availability of power.
- **Lack of access to markets:** GoU has taken measures to address the constraints to market access. For example, through CAIP (Community Agriculture Infrastructure Improvement Program), GoU has increased community and district roads in 68 sub-counties of 31 districts across the country.
- **Improving storage infrastructure:** In order to improve the impact of price fluctuations, improvements in postharvest handling, particularly access to storage facilities, have been prioritized by supporting private-sector solutions to develop both domestic granaries and commercial warehouses.<sup>84</sup>

**231. In addition to the initiatives mentioned above, the GoU plans to further strengthen interventions in the sector in the financial year 2014/15 and beyond.** Some of the planned initiatives include encouraging smallholders to aim at producing a surplus so as to increase returns to small holder farming; encouraging large scale crop production and value addition among medium and large scale farmers; and leveraging and facilitating agriculture using the value chain

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<sup>84</sup> Ministry of Finance Planning and Economic Development, Background to the Budget 2012/13

approach to ensure that agribusinesses create productive jobs, enhance export diversification and increase household incomes.<sup>85</sup>

### **Horticulture Crops Sub-sector**

232. **As is the case with the food crops sector, the growing of FFVs in the Albertine region is largely the occupation of smallholder farmers.** The performance and prospects for the horticulture sub-sector were best summarized by a member of the Nalweyo farmers forum during a focus group meeting when he stated that “... anything can grow here, we just grow what is demanded by the market”. True to the statement by the Nalweyo farmers forum, due to the fertile soils and the good climate in the Albertine region, and in particular the favorable rainfall patterns, the region can produce vast quantities of fruits and vegetables if there is a guaranteed market and the roads are passable. The vast majority of these farmers sell their fresh produce in its raw form.

233. **In order to help small business grasp business opportunities coming from the oil exploration and production in the Albertine region, Tullow Oil, in partnership with UIA, provided support to Traidlinks.** Traidlinks is an NGO in the Hoima district supporting enterprise development and agriculture supply chain activities. Traidlinks has provided support to the Hoima District Farmers Association (HODFA), and as a result of its efforts, a number of farmers who are members of HODFA have gained a rare opportunity to build up their capacity to supply Tullow’s camps with fruits and vegetables.

234. **Traidlinks has shown some good results in building up farmers' associations and connecting them with oil companies.** Under this project, member farmers receive inputs including improved seedlings as well as approved fertilizers on favorable credit terms. In addition to improved access to inputs, the project has put in place a system of collection centers that provide storage services within easy reach. The project also provides extension services to participating farmers.

235. **According to Ernst & Young report, by December 2013, the Traidlinks project had provided over 25 tons of fresh produce to Tullow oil camps, 10 collection centers had been established, new products were being developed, and around 600 farmers had been trained in business skills and quality assurance<sup>86</sup>.** Given the relative success of its agricultural activities, Traidlinks is now supporting a new enterprise development project which aims at linking suppliers of non-agriculture related products and services to the oil camps, including laundry, cleaning, compound maintenance, and others. Please see **Annex 8** for more information on Traidlinks.

236. **So far, Traidlinks remains the sole initiative in Uganda aimed at linking Albertine region suppliers to oil opportunities in a systematic manner.** Originally it was meant to be a pilot to be scaled up to other districts of the Albertine region. As described above, different districts in the Albertine Region lead in the production of different food types, and therefore it would be highly beneficial to establish similar centers in other districts besides Hoima. Kibaale is the overall leader in food crop production in the region (and leader in terms of population), so having a center there would be quite desirable. Unfortunately, due to the lack of funding, the scale up did not take

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<sup>85</sup> Ministry of Finance Planning and Economic Development, Background to the Budget 2012/13

<sup>86</sup> Agricultural Supply Chain Project- Hoima, Uganda. Ernst and Young Report. December 2013

place and Traidlinks was not able to expand activities. As the result, the organization has been able to achieve only a modest impact.

237. **At present, Traidlinks has only been able to link farmers to the Tullow oil camps (which is not surprising given that Tullow is partly funding the initiative).** Although there has been some recent progress made in negotiations with CNOOC's catering service to start supplying some food for their camps, negotiations with Total so far have not been successful. Even with Tullow, only the most basic food products have been supplied (e.g., vegetables, fruits), while there has been no success yet in its attempts to venture into supplies of meat, dairy, fish etc. due to a number of obstacles (e.g., absence of adequate supporting infrastructure, inadequate standards). The situation is complicated by the fact that the IOCs' procurement departments themselves are not involved in procurement of food supplies for their camps, and this function is outsourced to their catering service contractors. Although IOCs ensure that contracts with catering companies include clauses providing for domestic procurement, there approaches so far do not appear to be very effective.

238. **Apart from the few farmers mobilized by HODFA, the range of fruits and vegetables produced by the local private sector in the region for the market is still very narrow.** While the subcounties accessing the oil camps market may appear to be performing better than the others in terms of quality and quantities produced, it does not mean that the other subcounties are not able to perform to that standard if they are provided necessary training. Smallholders participating in the HODFA arrangement have been equipped with the knowledge and skills needed to perform to a reasonable standard and have also been receiving extension support during the process of growing their produce. As a result, their produce is presented to the oil camps at a much higher standard than is the case with the produce coming from non-participating farmers.

239. **Some of the challenges faced by smallholders in the FFVs sub-sector are similar to the ones experienced under the food crops sub-sector, albeit, with varying degrees of impact.** The main barriers to enhancing competitiveness in the sector include low use of improved seed and seedlings; low use of fertilizers; lack of access to tractor hire service; lack of access to finance; unpredictable weather; poor transport infrastructure; poor pest and disease control and lack of suitable storage facilities.

### **Livestock Sub-sector**

240. **The districts of the Albertine region appear to be performing well with regard to numbers of livestock kept.** Communal grazing and agro-pastoralism are the main livestock production systems used in the region.

241. **Masindi, followed by Kibaale, is leading the other districts in terms of cattle and goats kept (Table 15).** With regard to piggery and poultry, Kibaale and Masindi respectively lead the other districts followed by Hoima in both cases. According to the 2008/09 Agricultural Census, the districts of the Albertine Region performed best in the Western region in the production of chicken and pigs with Masindi, Hoima and Kibaale attaining a rank of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> largest producers of chicken respectively, and at the same time Kibaale, Hoima and Masindi attaining a ranking of 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> largest producers of pigs in the region. According to recent projections, the region's numbers of livestock kept have continued to grow since the 2008/09 Census, with the

number of cattle in Hoima and Kibaale growing by 13.8% and 29.3% to 125,200 and 226,114 in 2004 respectively. Similarly, since the Census, the number of chicken kept in Hoima and Kibaale has grown by 69 percent and 13 percent to 1,595,543 and 995,941 birds in 2014 respectively. Value chains for beef, dairy and poultry subsectors are presented in **Annex 7**.

**Table 15. Livestock Kept by the Districts of the Albertine Region (2008/09)<sup>87</sup>**

<b>Livestock</b>	<b>Buliisa</b>	<b>Hoima</b>	<b>Kibaale</b>	<b>Masindi</b>
Cattle	34,801	109,998	174,926	213,402
Goats	43,326	187,128	199,572	233,423
Sheep	3,884	25,593	24,329	24,943
Pigs	849	104,669	153,512	87,616
Chicken	99,932	942,843	879,032	1,007,182
Ducks	18,542	26,898	34,194	39,362
Turkey	115	2,677	2,140	1,843

242. **There are no large scale commercial beef and poultry farmers in the region.** Beef and poultry farming activities are mainly carried out by small scale farmers. The main barriers to enhancing competitiveness in the beef sub-sector include production constraints such as disease and poor quality breeds; lack of improved bulls; lack of on-farm herd books for animal event recording e.g. births, deaths; lack of good herdsman; inadequate pastures during certain periods of the year; inadequate water in some periods of the year; and inadequate advisory and veterinary services. The most significant barriers to enhancing competitiveness in the poultry sub-sector include an inadequate supply of day old chicks; poor quality of the day old chicks supplied by local small scale breeders; lack of quality feeds; irregular feed supplies due to the seasonality of maize, the main ingredient in the production process; lack of commercial feed producers in the region; lack of commercial breeders in the region; lack of electricity making it difficult to develop cold chain infrastructure; and lack of poultry specific policy and legislation.

243. **As is the case elsewhere in the country, the dairy industry in the region is based largely on smallholders producing for home consumption and offering the market the little surplus that remains.** The most significant barrier to enhancing competitiveness in the region's dairy sub-sector is lack of good dairy breeding stock. The other barriers include low use of quality inputs, mainly due to farmers' lack of information about associated benefits; undeveloped distribution channels for dairy inputs; lack of milk collection centers (MCCs) which inhibits production and productivity; low animal productivity due to low genetic potential, poor feeding and animal health; low adoption of improved management practices and technologies; inadequate extension services, and business development services; inadequate access to financial services and other production constraints such as endemic disease, inadequate feed and water.

244. **The region does not have any formal milk processor and the number of MCCs is inadequate.** There is one informal processor in Hoima who packs milk in 1 liter units. MCCs are the main distribution centers for milk in the region, serving both household and institutional consumers. Transporting raw milk from the farmer to the MCC is mainly performed by the bicycle

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<sup>87</sup> UBOS

trader, or the farmer or the collection center trader. The present number of MCCs is inadequate and there is a need for more. For example, Kibaale, with the second biggest herd in the region after Masindi, has only one MCC located at one extreme end of the district where it is accessible by a few farmers. Buliisa also has one MCC while Hoima district has four.

### **Fisheries Sub-sector**

245. **According to UBOS, Lake Albert, the main water body in the region, was second to Lake Victoria in fish catch in 2011 and 2012.** During these years, Lake Albert registered catches of 163,600 and 152,600 metric tons against Lake Victoria's 169,800 and 185,200 metric tons respectively.

246. **Nevertheless, the current production of fisheries in the region is very low, as a result of large scale illegal fishing.** Fishing on the lake is in the hands of small scale fishermen who use the outboard engine, and the fishnet to trap their catch. The value chain of the region's fisheries sub-sector is presented in **Annex 7**.

247. **No formal processing is currently taking place in the region.** Due to the widespread use of illegal gear on the waters, and the illegal trade in immature fish, commercial processing is no longer attractive to investors. In this regard, the only commercial fish processing plant established on the lake to process Nile perch some years ago closed down recently due to lack of fish supplies. Even the refrigerated trucks that come to procure Nile perch at the lake's shores have to wait for up to three weeks before they can fill up (with up to 3 tons). Consequently, the only processing going on is the primary processing that takes place immediately after the fish is landed and the traditional sun-drying and smoking (hot smoking) mainly of the silver fish. The primary processing carried out includes cleaning and packing fish in clean containers as well as gutting and scaling the fish depending on customer specifications.

248. **Some other pressing barriers for this sector include:** lack of information about the fish stocks in the lake on the basis of which to establish sustainable levels of fishing; inadequate facilities for seed multiplication and artificial propagation for restocking and stock enhancement; breeding and nursery grounds are not identified, mapped and gazetted; inadequate capacity of Beach Management Units in fisheries management; lack of species-specific management plans; prevalence of HIV/AIDS in the fishing communities; and inadequate mechanisms for fishing communities to save and invest.

249. **To reverse the declining fortunes of the industry, interventions to halt illegal activities and to exploit existing opportunities are urgently required.** According to the DSIP, GoU proposes to focus on strengthening controls of illegal fishing, promoting and supporting aquaculture and cage farming, especially of tilapia (currently at negligible levels but with clear potential for export to neighboring countries), and stocking of small water bodies including dams, with particular emphasis on ensuring fish quality at all levels. GoU is also keen to develop infrastructure for commercial fish farming (aquaculture) including supporting the establishment of aquaculture parks and cages in Lake Albert inter-alia.

### **3.3 PROSPECTS OF SUPPLYING FOOD TO THE OIL CAMPS BY THE ALBERTINE REGION**

## Overview

250. **Given that thousands of people are expected on site in oil camps during the development of oil fields, opportunities for food supply to the camps by the local private sector appear quite viable and need to be pursued.** Procurement of food in the oil camps is the responsibility of catering firms contracted by the IOCs. The types and quantities of food demanded by the oil camps are determined by a number of factors, including the choices and preferences of workers, the number of workers residing in the camps and the availability of the various food items demanded.

251. **For some time following the opening of oil camps, most of the food required to feed workers in the camps was procured from Kampala based market leaders, such as Fresh Cuts.** The fact that domestic suppliers were selected is very beneficial from the standpoint of national content development. Nevertheless, while we would expect that a lot of the food (and other supplies in general) would come from Kampala, achieving some participation of the Albertine Region in supplying the oil camps is also desirable. Unlike Kampala, where suppliers work in a large number of sectors and can supply different types of goods and services to the IOCs, the prospect of supplying food to the oil camps is a major opportunity for the Albertine Region's private sector. For smallholder farmers of the Albertine Region, the development could be their gateway out of poverty liberating thousands of households currently living below the poverty line.

252. **In a bid to promote participation of the Albertine Region, Traidlinks commenced work in Hoima to organize smallholder farmers to supply food to the camps, as discussed earlier.** To its credit, the project has performed reasonably well, and presently, smallholder farmers organized by the NGO are supplying a wide range of food items to the camps, mainly FFV.

## Current Requirements and Sources of Supplies

253. **Presently, the number of workers residing in the camps has been less than 500.** This is relatively low compared to the numbers expected to be resident in the camps at the peak of the construction phase in 2017/18. According to the catering firm responsible for the oil camps, their food requirement consists of a range of items, including meats (30 items), fish (3 items), local staples (7 items), pulses (3 items) as well as FFV (about 40 items).

254. **Since the number of workers in the camps is still low, the quantity of food required is also small, so is the number of suppliers needed to provide the food.** In this regard, the number of regular suppliers contracted to supply various food items to the camps currently has been four, namely: Fresh Cuts, Emarat, Rwenzori and HODFA. **Table 16** below shows the firms that have been supplying food to the camps by food type handled.



**Table 16: Current suppliers of food items to Kisinja & Buliisa Camps<sup>88</sup>**

Category	No of items/types	Supplier(s)
Beef	7 cuts	Fresh cuts
Poultry	6 cuts	Fresh cuts
Mutton	4 types	Fresh cuts
Pork	4 cuts	Fresh cuts
Fish	3 types	Fresh cuts
Sausages & cold cuts	5 types	Fresh cuts
Diary & chilled spreads	13 types	Fresh cuts
Beverages & Juices	8 types	Fresh cuts
Frozen vegetables	7 types	Fresh cuts
Condiments, spices & ingredients (a)	38 types	Fresh cuts
Condiments, spices & ingredients (b)	53 types	Emarat
Water	1 type	Rwenzori
Fresh fruits & vegetables	46 items	HODFA <sup>89</sup>

255. **The fact that large Kampala-based companies are able to easily meet the requirements of the IOCs reduces potential opportunities for Albertine Region based suppliers.** As evidenced by **Table 16**, apart from the Hoima based Traidlinks/HODFA project, all the other firms contracted to date have been Kampala based. Fresh cuts, the company contracted to supply meats and other food products is the market leader for packaged retail cuts and processed beef in Uganda controlling 85 percent of Kampala’s processed meat market<sup>90</sup>. Rwenzori Bottling Company, the firm supplying mineral water, is the market leader for bottled mineral water in Uganda, and Emarat is a Kampala based business enterprise, which was contracted to supply assorted imported condiments, spices and ingredients that could not be supplied by Fresh Cuts.

256. **A detailed matrix showing the food items supplied by the smallholder farmers through Traidlinks during the month of May 2014 is contained in Annex 8 (Table 1).** A review of the food items supplied reveals that the most highly supplied item is Irish potatoes, for which the total quantity supplied during the month came to 1,850 Kg, accounting for more than 6.7 percent of the total quantity of food supplied by the farmers to the camps during the period. However, while they are able to supply reasonable numbers of cattle, chicken, and pigs, smallholders were not contracted to supply any of these livestock because catering firms buy processed meat, which smallholders are not in a position to supply. Consequently, since the Traidlinks project was not able to handle this line of supplies, catering firms have been procuring processed meats from Kampala based suppliers who buy cattle from the region and process it into various cuts, before shipping it back to the region for consumption in the camps.

257. **With the exception of unpredictable weather and poor information flow from oil camps, key barriers to enhancing competitiveness among smallholder farmers are related to lack of access to finance.** The barriers include lack of equipment for processing rice to the

<sup>88</sup> Source: Supreme Catering Services

<sup>89</sup> HODFA is Hoima District Farmers Association under which the Hoima based smallholder farmers are contracted

<sup>90</sup> Agriterra, 2012

standard required by oil camps; lack of refrigerated transport, necessary to preserve the quality of fresh produce during transportation from the village collection point to the central collection center; reluctance by the banks to extend working capital finance to this market segment for fear that they are too small to borrow large amounts; lack of equipment necessary to spray fruit farms against fruit flies; and lack of funds to finance the acquisition and installation of green houses where certain types of fruits and vegetables required by oil camps grow best.

258. **Overall, access to finance has been presented as a common challenge among participating smallholder farmers.** While one microfinance institution has been assisting smallholders with small loans, its maximum loan size is UGX 1.0 million. In a few cases where smallholders applied for loans from commercial banks, they were turned down either because the amount they wanted was too small (the amounts were less than UGX 5.0 million), and when the loan size was not the problem, the farmers did not have acceptable collateral. In other cases, the effect of drought on farmers' ability to supply FFVs all year round has been a serious challenge. While irrigation technology could help mitigate the challenge, it remains out of reach for smallholders due to lack of access to suitable financing arrangements.

259. **These arrangements, as well as the other related barriers, are well beyond the current means of the NGO to contain.** They could be more competently contained by a large scale investor, with the capacity and interest to establish a large scale FFVs farm, supported by a sizable network of outgrowers including smallholder farmers. Under such an outgrower system smallholder farmers would receive the support necessary to be able to supply the fresh fruits and vegetables demanded all year round. Among other things, such support would include an effective extension service, an appropriate irrigation scheme, and access to appropriate chemicals spraying equipment and or services.

### **Projected Requirements & Possible Share of the Region's Private Sector**

260. **According to the results of the IBS, the population of workers in the camps is expected to rise rapidly from the current level of less than 500 to an estimated 13,000 at the peak of the industry's construction phase during the period 2017-2018, before receding to a plateau of about 3,000.** Table 17 below shows the average number of workers in the camps during the initial years of the development phase.

**Table 17: Projected number of workers<sup>91</sup> in the oil camps during the period 2015-2019<sup>92</sup>**

Category	Y1			Y2			Y3			Y4			Y5			Y6		
	National	Expats	Total	National	Expats	Total	National	Expats	Total	National	Expats	Total	National	Expats	Total	National	Expats	Total
Engineers	3	57	60	37	703	740	65	1,226	1,290	54	1,017	1,070	43	817	860	43	817	860
Technicians	-	-	-	350	1,050	1,400	550	1,650	2,200	400	1,200	1,600	250	750	1,000	250	750	1,000
Craftsmen	1,080	720	1,800	2,160	1,440	3,600	2,940	1,960	4,900	3,282	2,188	5,470	720	480	1,200	660	440	1,100
Unskilled labour	465	-	465	1,435	-	1,435	2,098	-	2,098	2,035	-	2,035	765	-	765	740	-	740
<b>Total</b>	<b>1,548</b>	<b>777</b>	<b>2,325</b>	<b>3,982</b>	<b>3,193</b>	<b>7,175</b>	<b>5,652</b>	<b>4,836</b>	<b>10,488</b>	<b>5,771</b>	<b>4,405</b>	<b>10,175</b>	<b>1,778</b>	<b>2,047</b>	<b>3,825</b>	<b>1,693</b>	<b>2,007</b>	<b>3,700</b>

<sup>91</sup> All numbers are averages for the years they relate to

<sup>92</sup> Adopted from the International Oil Companies' Industrial Baseline Survey (IBS), 2013

261. **The projection recognizes that the population of workers in the camps will fluctuate as workers come and go, staying for varying periods of time, depending on the skills they possess, and the need for them.** Accordingly the numbers indicated in the table are averages for the period they relate to. For example, if the population of workers in the camp at the beginning and at the end of a typical year was 1,900 and 2,100 respectively, the projected population of workers for the year would be 2,000. Furthermore, according to the IBS report, in addition to the core oil workers residing in the camps, there will be other jobs created in the industry through indirect as well as induced business activities bringing the total number of workers at the peak of the construction phase to between 100,000 and 150,000.

262. **Based on the planned gradual build up in the numbers of workers, a projection of the food requirements for the camps has been made.** A detailed matrix showing the quantities required for the period 2015 to 2019 has been carried in the **Annex 9**. The assumptions about the mix of food consumed in the camps have been provided by the catering professional from the Makindye Country Club which caters for national and expatriate workers in Kampala. The team has contacted the catering company for the IOCs, Supreme, to obtain projections of food requirements for the camps but was not able to obtain such projections. As such, it was decided to contact a similar provider, Makindye Country Club, to obtain the data about the food mix. This Club is a recreation facility, membership for which was previously reserved for American citizens as well as diplomats and expatriates of other nationalities working in Uganda, until 2012 when membership was opened to nationals. The Catering professional provided food mix assumptions for 100 people (75 expats and 25 nationals) and the team scaled them up to match the number of workers expected in camps in a given year (obtained from IBS).

263. **Review of the mix of food shows that most of the food required by the oil camps grows well in the Albertine region.** However, since most of the food produced hits the market in its raw form, it is likely that much of it may not be acceptable to the oil camps and as the result, will not be procured. In this regard the most affected food items will be meats and dairy products for which processing facilities are either non-existent or the standards available are much lower than what would be acceptable to the camps. **Table 18** shows the estimated proportion of the total food requirements that the local private sector could be able to supply, given the strict quality requirements of the IOCs.

**Table 18: Proportion of Food that the Local Private Sector Could Supply to the Camps**

Food Item	Acceptable	Remarks
Staples	80%	Quality of milling facilities available is likely to be inadequate
Pulses	80%	Quality of milling for groundnuts is likely to be inadequate
Meats	0%	There is no modern abattoir
Fish	0%	There is no functional fish processing plant in the region
Milk	0%	There is no milk processing plant in the region
Fresh Fruits and Vegetables	50%	(a) Lack of cold chain facilities affects quality and the quantity produced (b) Lack of irrigation means that farmers can not supply all year round

264. **Leaving quality aside, in terms of pure volume, a review of the projected food requirements and the current levels of production in the region suggests that the private sector in the region has the potential to supply the quantities of food needed by the oil camps.**

The review indicates that apart from chicken and Irish potatoes the requirement for the other food items is well below 3 percent of the region's current levels of production (Table 19).

**Table 19: Comparison of Projected Annual Food Requirements with the Region's Current Production of Selected Food Items<sup>93</sup>**

Comparing Projected Annual Food Requirements (DD) with Current Production (Pdn) of food in the Albertine Region												
Food Item	Unit	Current	Year 1		Year 2		Year 3		Year 4		Year 5	
		Production (2008/09)	DD	DD/Pdn Ratio	DD	DD/Pdn Ratio	DD	DD/Pdn Ratio	DD	DD/Pdn Ratio	DD	DD/Pdn Ratio
Average population in camp (No)				2,325		7,175		10,488		10,175		3,825
<b>MEATS</b>												
1 Beef (Cattle)	Tons	53,313	90	0.2%	278	0.5%	407	0.8%	394	0.7%	149	0.3%
2 Chicken	Tons	5,858	95	1.6%	283	4.8%	412	7.0%	403	6.9%	147	2.5%
3 Mutton (Sheep&Goat)	Tons	15,238	48	0.3%	149	1.0%	218	1.4%	212	1.4%	80	0.5%
4 Pork	Tons	17,332	105	0.6%	327	1.9%	478	2.8%	463	2.7%	176	1.0%
<b>FISH</b>												
1 Tilapia fillet	Tons		36		110		161		156		58	
<b>OTHER FOOD ITEMS</b>												
1 Bananas (Matooke)	Tons	77,144	392	0.5%	1,083	1.4%	1,556	2.0%	1,555	2.0%	522	0.7%
2 Rice	Tons	14,639	73	0.5%	224	1.5%	327	2.2%	317	2.2%	119	0.8%
3 Maize flour	Tons	173,568	78	0.0%	213	0.1%	305	0.2%	306	0.2%	101	0.1%
4 Cassava flour	Tons	176,289	33	0.0%	91	0.1%	130	0.1%	130	0.1%	43	0.0%
5 Millet flour	Tons	5,947	33	0.6%	91	1.5%	130	2.2%	130	2.2%	43	0.7%
6 Sweet potatoes	Tons	57,700	67	0.1%	185	0.3%	266	0.5%	266	0.5%	89	0.2%
7 Irish potatoes	Tons	7,320	254	3.5%	782	10.7%	1,142	15.6%	1,109	15.1%	416	5.7%
8 Dry beans	Tons	60,260	46	0.1%	130	0.2%	187	0.3%	186	0.3%	64	0.1%
9 Groundnuts	Tons	24,015	46	0.2%	130	0.5%	187	0.8%	186	0.8%	64	0.3%
<b>Total (Metric tons)</b>												

265. The table shows current food production in the Albertine region (based on 2008/9 data), annual food requirements for a particular food category (DD) and the ratio of required food volume to production in the region. For example, the projected requirement for beef and beef products when the number of workers in the camps is at its peak in Years 3 and 4 is 407 and 394 metric tons respectively, which translates into about 4,070 and 3,940 heads of cattle, which is less than 1 percent of the region's current herd of 533,127. In the case of maize, cassava and sweet potatoes, the projected requirement is less than 0.5 percent. The ratio of projected food requirements for the peak years 3 and 4, is 7.0 percent and 6.9 percent respectively for chicken, and 15.6 percent and 15.1 percent respectively for Irish potatoes.

266. However, if the projection takes into account all workers (i.e. the workers resident in the oil camps, as well as workers engaged in indirect and induced business activities) and assuming similar consumption levels among all workers, there could be shortages. To account for all these workers, the total food requirement is likely to rise by a factor of more than 10. This result would imply that the region's current levels of production in some food items may fall short of the quantity needed to feed all the workers in the industry. Moreover, even where the levels of production appear sufficient, the position could change due to unexpected changes in the weather, pests and other plant as well as animal diseases. Finally, there are other factors that are likely to

<sup>93</sup> We note that quality requirements are not considered here. The objective of this table is to show that the region is able to supply the quantities of food demanded. If quality requirements are considered (Table 15), meat, fish and milk products would automatically not be eligible

affect food production in the region. There have been incidences in the past when some areas in the region produced a lot of food but because the roads were impassable the food could not be transported out of the surplus zone. Consequently, while the food may be available in the quantities needed, it may not be possible to deliver the same at the time and shape required, due to these barriers.

**267. For the region to participate in this market effectively, key barriers need to be addressed in time.** Otherwise, catering firms may find themselves left with no choice but to procure from Kampala and beyond, when the same could be procured from the region had the road infrastructure been upgraded.

**268. In order to conduct an initial assessment of the capacity of large agro processors in Uganda to supply the oil camps with food during the peak period (construction phase), a number of interviews were conducted as part of this study.** It was determined that large scale agro processors are aware of the imminent oil and gas sector demand boom, and have made plans to expand their production capacities to accommodate the increase in demand from the new market. Because of their experience accumulated from years of supplying food to export markets that are bigger and more distant from Kampala than Hoima, large scale agro processors expect to supply the new market from their current premises.

**269. In case of fish processors, the only challenge foreseen is the shortage of fish from the national waters, as a result of which more than half of their export orders cannot be supplied.** Otherwise, their installed processing capacity is more than enough to supply all the fish that is needed and because they deal in frozen products, they are able to supply the quantities demanded to any location without having to build new plants near the oil camps in the Albertine region.

**270. In the case of large processors of poultry and poultry products, there is also adequate capacity to supply all the chicken required.** According to Ugachik, by far the leading supplier of poultry and poultry products in the country, there was provision in its strategic plan to increase installed capacity to more than double the current capacity by the end of 2014. The firm deals in frozen chicken and is already supplying large quantities to its export markets in Rwanda, Southern Sudan and DR Congo using its refer trucks. Similarly, the firm expects to supply the quantities required by the oil industry from its Magyigy Plant, (Kabanyolo, near Kampala), using its refer trucks. The firm has a fleet of small and medium sized refer trucks with a capacity of 10 and 20 tons. Based on their experience, they estimate that a workforce of 13,000 will use 10 tons of chicken per week. This means that the population in the camps, can be served by the firm's 10 ton truck comfortably since it is less than the quantity they produce in one 8 hour shift daily (before the planned expansion). Similarly one of the largest dairy processors indicated that they had plans to double their current capacity to accommodate the anticipated demand boom.

**271. Overall, it appears that there are a number of large players based outside of the Albertine Region that are able and willing to supply food to the oil camps.** The capacity of the Albertine Region's private sector is much lower and there is a high likelihood that large players will get the contracts to supply the oil camps as the case has been to date.

**272. Support would need to be provided to the Albertine Region's private sector to improve its competitiveness and increase chance of supplying food to the oil camps.** Moreover, if the

Albertine Region were to participate in the supplying food to oil and gas camps, it would also be important to design the strategy for the periods following the completion of construction. When the construction phase comes to an end, the population of workers will shrink from a high of 13,000 at the peak of the phase to a low of nearly 3,000. Since the demand for food is directly dependent on the population in the camp, the reduction in the number of workers will lead to a massive fall in demand for food in the camps. This development can be devastating to the local economy and the national economy in general. In order to minimize the impact of this development, it is important that the strategies used to organize farmers to improve food production in the region should have the capabilities necessary to produce high quality food that can satisfy the standards of export markets both regionally and internationally. This way, it should be possible to find alternative markets abroad when the demand boom from the oil camps begins to fall.

### **Possible Approaches to Maximize Participation of the Albertine Region's Private Sector in Supplying Food to the Oil Camps**

**273. There are three possible approaches that can be used to achieve high quality standards of the farmers' produce and to maximize participation of the Albertine Region in the supplying food to the oil camps.** These include the NGO approach, the large scale investor approach, and the Agro Industrial Park approach.

#### *(1) THE NGO APPROACH*

**274. The NGO approach, such as the case of Traidlinks, is driven by the NGO which lobbies IOCs and other agencies to finance its operations as well as the capacity building services and extension services rendered to smallholder farmers.** This model has worked well in the exploration phase, the missed opportunity to supply meat and other processed foods notwithstanding. However, apart from the small volumes handled during this phase, it may well be that this approach was probably the best possible under the circumstances.

**275. When the numbers in the camps increase sharply, Traidlinks will face a challenge of mobilizing the resources necessary to scale up the volumes handled to the levels demanded.** While existing arrangements have worked in the current phase, the sharp rise in the population of workers under the construction phase may require additional funding or a new approach.

**276. The NGO has already felt the pressure of both insufficient funding to scale up the initiative and lack of bargaining power to obtain favorable terms with the catering companies for the IOCs.** The payment terms offered were quite unfavorable (payment to be received within two months from delivery), and only Tullow camps were willing to receive supplies of food items from Traidlinks. At the time the study was conducted, Traidlinks held discussions with CNOOC and there appeared some possibility to supply food to them at some point, while there seemed to be no progress at all in discussions with Total camps.

#### *(2) THE LARGE SCALE INVESTOR APPROACH*

**277. The large scale investor approach would be driven by the investor targeting a particular product or a group of products.** The investor could be attracted by a business

opportunity and some government incentives tailored to cushion the investment against the hazards involved in setting up in a new location lacking a whole range of infrastructure such as roads, water, and electricity among others. There would also need to be cooperation from the IOCs in terms of making their projected demand known well in advance and potentially “pre-qualifying” the investor for a contract in case operations are set up in a satisfactory manner and agreed-upon food items are supplied in the right quantity and of the right quality.

**278. The investor would develop and set up a production system that uses smallholder farmers as outgrowers, or contract farmers, to supplement his own production from a large scale nucleus farm, supplying the investor’s processing plant, on a continuous basis all year round.** If the right investor(s) is found, this approach could mobilize the resources required to commence operations and to raise production to the levels necessary to satisfy demand. In addition, this model is able to match the quality standards of export markets both regionally and internationally, which would satisfy the need to achieve sustainability of the production levels attained during the boom period for many years to come. Given the fact that most food groups are already produced in the Albertine Region but no formal processing is taking place, opportunities for investment would be very large (e.g., beef plant, chicken farm, fish plant, and milk plant). From the government standpoint, it would be important to ensure that priority is given to projects from which more population could benefit.

### *(3) THE AGRO INDUSTRIAL PARK APPROACH*

**279. The experience of other countries shows that the establishment of an agro-industrial park, the third approach discussed in this study, could potentially help Uganda to achieve the much needed transformational impact.** The high cost of modern technologies, equipment and infrastructure makes it difficult (sometimes almost impossible) for most small-scale initiatives in developing countries working in isolation to keep pace with change.

**280. Shared facilities are a means of meeting this challenge, and may provide both the critical mass and the catalyst that will enable small-scale processor to compete.** Many governments have therefore been pursuing the idea of creating facilities that can be shared within the framework of agro-industrial parks. A well designed agro-industrial park with all the requisite facilities including power, water, and waste disposal, has considerable potential for commercial success. Nevertheless, stories of failure of industrial parks in developing countries abound: empty parks, subsidized land speculation and tax erosion, and often no parks at all. As such, while such initiatives have potential for success, they also have high chances of failure when set up incorrectly and there is no interest on the side of private sector to participate.

**281. The establishment of an industrial park has been proposed in the *National Content Policy for the Petroleum Sector of Uganda, currently under development*<sup>94</sup>.** The government has earmarked 29 square km of land for the construction of the refinery and infrastructure, and 2-

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<sup>94</sup> Section 4.3.3, *To facilitate clustering of petroleum related companies* of the National Content Plan suggests that relevant governmental bodies should organize and plan for development of a central geographical area in which existing and future petroleum related companies and institutions are stimulated to co-locate. This could be organized as an industrial park in which IOCs, foreign suppliers, Ugandan companies and supporting institutions such as Association of Uganda Oil and Gas Providers are stimulated to establish by means of incentives and attractive terms

3 km could be available for housing of agro-processing enterprises within this area. On the agricultural side, such facilities could include processing of fruit and vegetables, milk, meat and fish, among others. With confirmed demand coming from the IOCs, this park could attract investors from other parts of the country and even overseas to establish farms and plants and supply the camps with high-quality food products.

**282. Annex 8 contains the summary of considerations for the establishment of the Agro Industrial Park.** Some of the plants which could be set up include:

- **Meats:** Plants for beef, chicken and pork, including facilities for slaughter and freezing with options for canning depending on identified demand;
- **Dairy:** Milk processing plants able to handle a range of processed milk products;
- **Fish<sup>95</sup>:** Fish processing plants able to produce a variety of fish products including chilled and frozen products with options for smoking Tilapia and Cat fish, the most prominent species in the aquaculture sub-sector;
- **FFV:** The region has the capacity to grow a wide range of these products;
- **Maize, Cassava and Beans:** The crops are so widely grown in the region that industries based on these products would be able to involve highest number of households.

**283. Although an Agro Industrial Park approach can be considered, significant caution needs to be exercised with this endeavor.** Uganda already has negative experiences with the establishment of industrial parks, and lessons learned from these initiatives need to be accounted for. Nevertheless, if the Park is set up appropriately and with buy-in of the major players, these plants and factories could benefit the local population as they would provide contract farming and employment opportunities. But more importantly, these plants would make a significant contribution to national content in the agriculture sector, adopting modern technology and increasing value addition in the sector. In future, when the oil sector enters production phase and demand from the IOC starts going down, these plants would be sufficiently viable to continue in business producing food for hotels in the area as well as supermarkets throughout the country and for export markets both regionally and internationally.

### **3.4 OBSERVATIONS AND RECOMMENDATIONS**

**284. Various approaches and views regarding managing and facilitating participation of smallholder farmers of the Albertine Region in the supplies of food to oil camps have been discussed in this chapter.** They all need to be considered carefully by the government as they have their pros and cons.

**285. The NGO approach, which is currently used, is useful in assisting local farmers to supply food to the oil camps, but the impact of this type of initiative on the economy of the region has so far been small.** The current efforts of Traidlinks are commendable but the range of food items supplied to the camps is limited. Given the lack of processing in the region currently and the lack of cold chain facilities, possibilities for supplying meat, fish and milk products to the

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<sup>95</sup> Fish farming is one of the priority sectors for development in Uganda. The GoU has set a goal of meeting the country's requirements for fish through increased aquaculture production from the current approximately 90,000 tons to a projected 300,000 tons by 2016. As part of the roadmap for achieving the set aquaculture production targets, government will create 'concentrated aquaculture production areas' known as Aquaculture Parks.



camps with the current level of funding are limited. Traidlinks also has a somewhat limited outreach having managed to mobilize only a few hundred farmers from around Hoima town.

286. **With increased funding, this initiative could achieve much more impact.** The project could be scaled up, with centers opening in other districts of the Albertine Region (e.g., Kibaale, Buliisa, Masindi) to target many farmers throughout the Albertine Region. With the increase number of oil workers on site and potential addition of other oil camps (besides Tullow) to the list of potential customers, the demand for FFV from HODFA would increase twenty-fold or even more. Several hundred farmers currently mobilized would likely not have the capacity to produce such volumes, and the number of participating farmers would need to be increase to several thousands of farmers. There would also be a need to increase the number of staff who are performing sorting/grading of the produce, proving training, as well as the number of collection centers. Additional funding could also be used to alleviate some of the constraints the initiative is currently facing to supply items other than FFV (acquisition of refrigerated transport, irrigation technologies, establishment of refrigerated storage facilities).

287. **Implementation of the other approaches discussed in this study, large investor approach or the Agro Industrial Park approach, have potential to make a significant contribution to the economic development of the region.** These approaches could help to organize and empower smallholder farmers, who are key partners in the transformation process both during and beyond the demand boom and for many years to come.

288. **The large scale investor approach would mean attracting several large scale investors to establish processing facilities relevant to the agricultural activity in different parts of the Albertine region.** For example, if Masindi is leading in terms of cattle kept, opportunities would be promoted to large investors to establish beef processing facilities there.

289. **Agro Industrial Park approach should be explored given high potential benefits, but some caution needs to be exercised as there have been some negative examples in Uganda previously.** A detailed feasibility study would need to be undertaken to establish the level of demand and justify the investment. Based on their negative experience with Kampala Industrial Business Park, popularly known as Namanve Park, a number of stakeholders have expressed reservations about the successful implementation of the proposed park. According to the views expressed by processors, it is possible to obtain their buy-in and maximize their appetite for participation in the Park if they are brought on board early during the planning stages.

290. **Overall, it is also important to note that even if a portion of food gets supplied to the oil camps by local producers based outside the Albertine Region (such as Kampala), this would still be a positive development from the standpoint of development of national content in the oil and gas sector.** As long as the food does not come from other countries, Uganda will be able to enable its agriculture sector to benefit from the development of the oil and gas sector.

291. **Nevertheless, there are several important reasons for providing support to maximize participation of the Albertine Region in supplying food to the oil camps.** On the one hand, this would help to alleviate social tensions. The population in the region already has expectations that they would somehow participate in the sector and benefit from it. Given that most of the people are engaged in agriculture, it would only be natural to look for opportunities to link these

smallholders with the oil camps. Moreover, a lot of people were negatively impacted by the resettlement in the Hoima area, and the poverty levels of the region are already higher than the average for Uganda, so they need support. On the other hand, from a purely economic standpoint, it would be beneficial to support the development of this fertile region which already has significant potential to produce major food groups both for domestic consumption and export, but is not able to achieve the right quality due to lack of processing facilities. With the demand for processed high quality food coming from the oil camps, there appears to be a business case for investments in the processing facilities in the region, as well as alleviation of major infrastructure bottlenecks.

## CHAPTER 4. OIL AND TOURISM- CO-EXISTENCE OF THE TWO KEY DRIVERS OF UGANDA’S ECONOMY

### 4.1.UGANDA TOURISM IN CONTEXT

#### *Linkage of Uganda Tourism to Economy*

292. **Tourism is a critical player in Uganda’s economy.** The economic analysis of tourism in Uganda shows that on average, each dollar of expenditure by a foreign tourist generates 2.5 dollars of the gross domestic product (GDP) – the total impact includes the indirect value added along the supply chain, plus the induced effects of household spending of wages earned. This figure compares with 2.3 dollars of GDP generated by one dollar’s-worth of traditional exports<sup>96</sup>. Although Uganda’s tourism sector faces serious competitors in the region as **Table 20** shows below, the forecasted growth rate for Uganda’s tourism indicates great potential.

**Table 20: The Travel & Tourism Competitiveness Index, Tourism Arrivals and Direct Contribution to GDP<sup>97</sup>**

Country	The Travel & Tourism Competitiveness Index, Regional rank, 2013 <sup>98</sup>	International tourist arrivals, 2010	Direct contribution to GDP, 2012, %	Travel & Tourism Industry GDP growth forecast, 2013-2022
Kenya	8	1,470,000	5.0	3.7
Rwanda	9	619,000	3.1	5.4
Tanzania	12	754,000	4.8	5.5
Uganda	13	946,000	3.7	5.2

#### *National Parks in Uganda*

293. **Uganda is rich in tourism resources, which are essential to establish a tourism industry that can compete internationally and sustainably.** Its main resources include renowned national parks and wildlife. The national parks are the backbone of the leisure tourism sector in the country and offer a wide range of tourism products including nature guided hikes, village walks and rare fauna and flora species. **Annex 10** profiles ten national parks in Uganda and their diverse tourism offerings. Among these ten national parks, three parks make up the major attractions tourists are coming to see: Bwindi, Queen Elizabeth, and MFNP. MFNP is where some of the biggest oil reserves are found. This park also attracts the largest number of visitors. According to the data collected by the Uganda Wildlife Authority, the number of MNFP visitors reached 60,803 in 2012 the number of visitors to national parks increased 33 percent between 2008

<sup>96</sup> *Economic and Statistical Analysis of Tourism in Uganda*. The World Bank, June 2013

<sup>97</sup> Source: Travel & Tourism Competitiveness Rankings, World Economic Forum, 2013; Tourism Highlights, UNWTO, 2012; Travel and Tourism Economic Impact, World Travel and Tourism Council, 2013

<sup>98</sup> The rankings for Sub-Saharan Africa region are calculated among 31 countries in the region. The highest rank is 1 (Seychelles) and the lowest is 31 (Chad). Uganda has the regional rank of 13, behind Kenya, Rwanda and Tanzania. Competitiveness is determined based on the assessment of travel and tourism regulatory framework, business environment and infrastructure, and human, cultural and natural resources.

and 2012. Notably, the number of visitors to MFNP saw a notable increase of 72 percent<sup>99</sup> over four years and reached 60,803 in 2012.

294. **Leisure tourism is one of the top segments in Uganda’s tourism.** Economic analysis of tourist expenditures found that leisure tourists spend 30-100 percent more per visit than other types of tourists such as business tourists. Spending by leisure tourists stimulates more GDP per dollar spent than the average traditional export in Uganda. Leisure tourism is strongly linked to the Ugandan economy through formal sector employment and the generation of government revenues<sup>100</sup>. To develop a sustainable and competitive tourism sector, strategic planning and conservation is paramount.

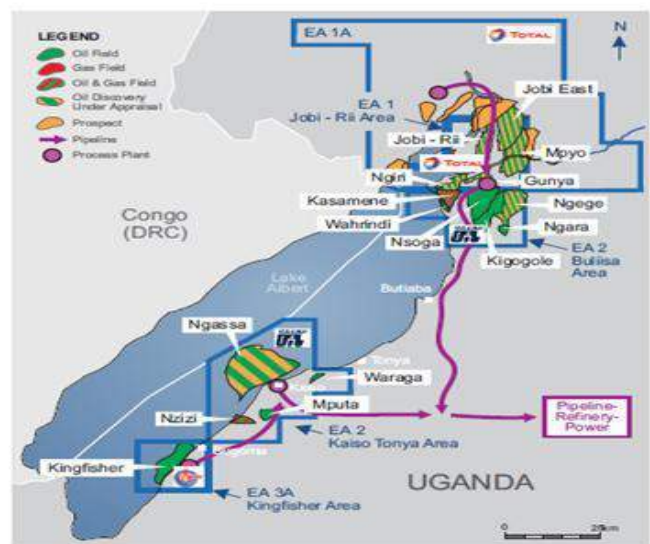
*Uganda’s 10-year Tourism Development Strategy*

295. **Uganda’s 10-year tourism masterplan was prepared by UNWTO in 2013.** Making sustainable use of natural assets was highlighted in the vision of this plan. As **Figure 7** and **Table 21** show, the identified development areas in the strategy focus on key existing attractions, national parks and protected areas, as anchors and key visitor attractors. In addition to the nature resources, strengthening of the wildlife product in the main national parks is recognized as an effective way to diversify tourism products. The strategy also recommends that visitors’ experience be upgraded to reflect the iconic nature of attractions, particularly in MFNP where the overall tourism image is already being negatively impacted by oil exploration activities. **Figure 8** illustrates how the current oil exploration areas highly overlap with the north-western tourism development areas where MFNP is located.

**Figure 7: The Structure Plan of Tourism Development Area<sup>101</sup>**



**Figure 8: Oil Exploration Areas in the Albertine Graben<sup>102</sup>**



<sup>99</sup> Visitors to National Parks (Citizens and Foreigners) 2008-2012, Uganda Wildlife Authority

<sup>100</sup> Economic and Statistical Analysis of Tourism in Uganda. The World Bank, June 2013

<sup>101</sup> Uganda Tourism Development Master Plan 2014-23, UNWTO, 2013

<sup>102</sup> Developing the Lake Albert Upstream Resources, Total, 2013

**Table 21: Tourism Development Areas and Tourism Products<sup>103</sup>**

Tourism Development Area (TDA)	Tourism Products
The Central TDA	“Cultural Heartland”, which focuses on Kampala as the capital city and main tourism service hub as well as Entebbe as the air gateway to Uganda. In addition, this TDA incorporates the Sesse Islands and the Mabira Forest.
The South-Western TDA	“Gorilla Forests”, covering The Bwindi Impenetrable Forest and Lake Mburo National Parks.
The North-Western TDA	“Safari and River”, incorporating Murchison Falls National Park as well as Bugungu and Karuma Wildlife Reserves and the north east shoreline of Lake Albert.
The Western TDA	“Lakes and Mountains of the Moon”, in the central area of Uganda, western frontier. This TDA focuses on the Queen Elizabeth, Rwenzori Mountains and Semliki National Parks. It also incorporates the Kigezi, Kyambura, Katonga and Toro Semliki Wildlife Reserves.
The North-Eastern TDA	“Tribal Cultures and Open Plains”, lying along the borders of South Sudan and Kenya. The TDA focuses on the Kidepo Valley National Park extending southwards to the Matheniko and Bokora wildlife Reserves
The South-Eastern TDA	“Nile and Adventure”, emanating from Jinja and covering the Mount Elgon National Park. This TDA also incorporates a section of the Victoria Niles as well as the Pian Upe Wildlife Reserve and RAMSAR sites on Lakes Nakawa, Opeta and Bisino.

### *Challenges in Uganda’s Tourism Development*

296. **The Uganda Tourism Sector Situational Assessment<sup>104</sup> identified several key challenges in the development of the tourism sector.** It noted that, moving forward, the increasing oil exploration activities may bring more challenges for the tourism sector.

297. **One major challenge identified is that local governments do not have adequate capacity in policy development and strategic planning.** As oil exploration and tourism will coexist, the tourism sector needs to have effective policies and integrated planning to address the current infrastructure gaps and minimize the negative impact from oil extraction. There is a serious shortage of skilled tourism planners and managers within the government and related bodies and this will have an impact on the overall quality and image of Uganda’s tourism. Future complex interactions between the oil industry and tourism industry require higher qualified workers. The conservation of tourism resources, such as natural resources and wildlife, need to be enhanced given the declining numbers of wildlife and increasing human-wildlife conflicts in national parks. Unlike other competitors in the region, Uganda is yet to build an effective destination brand and develop an efficient marketing mechanism. As the competition moves forward, the tourism products in Uganda need to be diversified.

298. **Another broader effort required is improved coordination within the tourism sector and with multiple stakeholders in the oil industry.** An oil and tourism communications unit

<sup>103</sup> Uganda Tourism Development Master Plan 2014-23, UNWTO, 2013

<sup>104</sup> *Uganda Tourism Sector Situational Assessment: Tourism Reawakening*. The World Bank, June 2012

needs to be established to help coordinate between different groups and coordinate planning and implementation efforts in a number of areas. This unit would need to be government endorsed but it would not necessarily need to be within the government structure.

#### **4.2. THE IMPACT OF OIL EXTRACTION ON TOURISM**

299. **Oil fields development is a rather long and complex process which involves different activities at each phase.** The entire oil exploration and production cycle spans about 20-50 years. During this period, oil will play a significant role in the Ugandan economy. However, the economy of the Albertine region where oil has been discovered also depends on agriculture, fishing and tourism. These sectors not only diversify the economy during the oil extraction period, but also contribute to the sustainability of the regional economy and prosperity of local community. A holistic plan and systematic monitoring mechanism should be in place to minimize the negative impact produced by each phase of oil fields development.

##### *Current Oil Exploration Activities in the Murchison Falls National Park*

300. **The Lake Albert region, where oil has been discovered, contains many parks and protected wildlife and forestry areas; some 40 percent of the known oil resources are found in the MFNP<sup>105</sup>.** At present, Total operates in two exploration areas which are mainly located in the northwestern part of MFNP. As of May 2014, Total had completed exploration and appraisal activities which included drilling, testing wells and carrying out seismic surveys. Next, Total will start the construction phase in MFNP and new wells will be drilled. It is estimated that around 750-800 wells will be needed. Development drilling activity will span over 13 years, with a maximum of 8 rigs operating simultaneously, of which up to three rigs could be drilling simultaneously in the park<sup>106</sup>.

301. **While carrying out its operations, Total has committed to respecting the natural and human environment.** Environmental and Social Impact Assessments are conducted prior to all activities and this process includes stakeholder consultations. Specific actions have been taken to (i) ensure effective waste management, (ii) develop an oil spill contingency plan and (iii) restore the locations after activities are concluded. In addition, Total has developed a tourism stakeholder strategy. The company has consulted and engaged extensively with tourism stakeholders on an ongoing basis to ensure continuity of activities in a sustainable manner. The company has two Tourism Liaison Officers (TLOs) based at MFNP to address day-to-day concerns. Total maintains an email list of the tourism stakeholders. It is used for regular updates on Total Uganda's upcoming activities and plans, such as movement of the rig at MFNP. Total hosts regular meetings with interested tourism stakeholders, in the Park and in Kampala. These meetings are used to update stakeholders on activities, review any changes to the longer-term plans, and discuss current issues.

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<sup>105</sup> Besides MFNP, oil reserves were reportedly discovered under Queen Elizabeth National Park (QENP). QENP is not part of any licensed discovery area at this stage, so no exploration is currently taking place. There is a possibility that a block covering QENP will be tendered in the next round

<sup>106</sup> Total Tourism Sector Information Pack. July 2013

Furthermore, Total has adopted the horizontal oil drilling method as a way to reduce impact on the environment and wildlife in MFNP<sup>107</sup>.

302. **On the public sector side, the UWA has provided operational guidelines for oil and gas exploration and production in protected areas.** These guidelines were developed to regulate the behaviors of oil companies operating in the park. Given that oil E&P involves multiple sectors and authorities, roles and responsibilities could be better defined in the guidelines. The current guidelines mainly focus on the private sector activities and enforcement procedures were not specified. In addition, the activities identified in the guidelines were very general and only for exploration and production. More emphasis should be put on the construction phase when there is maximum intrusion. To be more practical, the guidelines could be organized by phases of oil field development in sequence, identify activities and stakeholders involved in each phase, so stakeholders can easily refer to the roles and responsibilities at each phase. Another important aspect missing in the operational guidelines is the oil spill contingency plan which prepares the public and private sectors to respond to the potential disaster quickly and minimize the negative impact. Currently the preparation of a national oil spill contingency plan has been initiated by PEPD with the support from Norwegian government.

303. **Besides its wealth of oil reserves, Albertine region also harbors important geothermal and hydropower reserves.** Uganda is facing a huge electricity supply deficit; as a result, there is great pressure to harvest these resources. Also in the MFNP are the Karuma Falls, the location of the 600 MW Karuma Power Station, which is currently under construction and will be the largest hydropower station in Uganda when the construction is completed. Road construction, hazardous waste contamination, and other consequences of poor management will also add pressure to the precious tourism assets in and around the park. While there is a lot of scrutiny around oil fields development, less attention is devoted to the co-existence between tourism and other projects in the Albertine region while equally important.

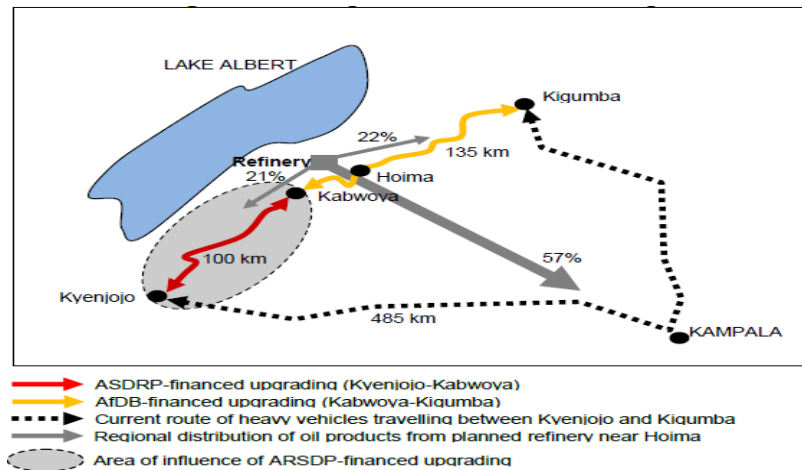
### *Potential Opportunities for Tourism*

304. **Even with strategic planning and day-to-day management, the ongoing oil-related activities will bring challenges as well as opportunities to the tourism sector and the local communities.** Full-scale oil operations require improved access and upgraded infrastructure which will benefit the development of the tourism sector in the region. The World Bank has recently approved the Albertine Region Sustainable Development Project which is designed to improve regional and local access to infrastructure, markets and skills development. This project can be leveraged to support infrastructural interventions in the Albertine Region which would strengthen supply chains and enable local suppliers to participate in the oil industry. In component 1, the project will finance the first 100 km of road from Kyenjojo to Kabwoya as shown in **Figure 9**.

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<sup>107</sup> Total Tourism Sector Information Pack. July 2013

**Figure 9: Albertine Region Project - Location and Scope<sup>108</sup>**



305. **This road will form part of the link between the Queen Elizabeth and Murchison Falls National Parks and will enable tourists to significantly reduce driving time between these two parks.** The upgrade of this road will directly benefit the oil sector, promote the co-existence of oil and tourism sectors and provide direct benefits to the local communities.

306. **This sustainable development project is also designed to finance planning and development of infrastructure in the region.** It will focus on rural and urban roads, markets and storage facilities. In addition, there are eight key urban centers in the Buliisa and Hoima Districts to be invested for development. These key urban centers anticipate growth from the oil development and they are likely to contribute to the future development of the region. The improved infrastructure will directly and indirectly benefit the tourists and local communities in rural and urban areas.

307. **To accommodate the increasing business travelers for oil operations and related conferences, the region has already attracted significant investments in hotels.** Protea Hospitality Group is planning to open a new hotel in the town of Hoima in 2014. The manager at the Hoima Resort Hotel indicated that most of their visitors came for oil related activities and 65 percent of the workshops they host are on oil<sup>109</sup>. As the oil sector moves from exploration phase to development and eventually production, there is growing opportunity for local supply for services such as accommodation and transport. Business travelers and service providers for the oil sector are also likely to travel to other parts of the country. With more effective planning and a regulatory system, local communities could be expected to benefit more from the growing hospitality industry.

308. **Since the full-scale oil production in the Albertine region is not expected to begin before 2018, the exact impact on Uganda's tourism is difficult to fully estimate at present.** The following section features case studies illustrating oil extraction and tourism activity in other countries and implementation of risk mitigations to minimize negative impacts. Both good practice

<sup>108</sup> The Albertine Region Sustainable Development Project, Project Appraisal Document, World Bank, March 2014

<sup>109</sup> Atuhairwe, R. *Uganda: Oil-Cost of Living Explodes in Hoima*, All Africa, July 8, 2012



and potential crisis are considered. These can assist stakeholders in Uganda's tourism and oil sectors to understand the potential impact and manage the challenges strategically.

309. **Increased anti-poaching efforts in the national parks represent another potential opportunity for the tourism sector arising from oil activity.** Due to increased scrutiny over oil activities in the park, there has been significant progress in the fight against poaching: UWA has discovered hundreds of snares targeting animals in the park, which otherwise would not have been discovered.

### *Challenges between Conservation and Development*

310. **For some developing countries, the extractive sectors represent one of the most crucial sources of investment and income in their economies.** Therefore, they would take risks to have exploration activities in protected areas where the ecosystem is fragile. These operations have the potential to drive economic growth, yet poor planning and governance can lead to increased macroeconomic instability, conflict and negative environmental and socio-economic impacts.

311. **Uganda is not the only country to discover oil reserves in the national parks.** Several developing countries around the world are also facing the challenge of balancing extractive activities and tourism activities in protected areas.

312. **In the Amazon basin area, both Ecuador and Peru have announced that oil exploration will start in their National Parks.** In Ecuador, an estimated 850 million barrels of petroleum was discovered beneath the Tasumi National Park which is a fragile Amazonian park inhabited by nomadic tribes. This area is not only home to indigenous people but also one of the most biologically diverse places on the planet. Oil production could begin as early as 2016. Biologist Kelly Swing, a professor at the Universidad San Francisco de Quito, evaluated the environmental impacts of various oil operations in Ecuador, and he cited cases in which oil companies planned to damage no more than two percent of their concessions, but because loggers and settlers used oil roads to enter the area, as much as 20, 30 or 50 percent of the forest was damaged or destroyed. In the 1980s and 90s, the Amazon already suffered from an oil spill and the toxic waste is still there. There will also be potential oil exploration activities in Manu National Park which is a UNESCO World Heritage Site.

313. **In Peru, the government approved expansion plans in 2012 for the Camisea gas project in the heart of a reserved area for isolated indigenous peoples<sup>110</sup>.** The expansion plans also has indicated that it is likely to span the eastern section of the reserve incorporating the headwaters of the River Serjali and the River Manu in the neighboring Manu National Park which is a UNESCO World Heritage Site. The potential negative impacts will not only threaten the fragile ecosystem, but also the indigenous people who rely on the forests and are extremely vulnerable. In 1980s, the Nahua, one of the indigenous peoples of the Reserve, offered a tragic example of such vulnerability. When Shell started first oil exploration in the area, the Nahua population was reduced by almost 50 percent due to outbreaks of respiratory infections to which they had no immunity. The surviving Nahua also expressed concerns that the impact would even spill over to

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<sup>110</sup> Tickell, O. *Peru: Amazon Tribes Sacrificed to Gas Project*, Ecologist, January 27, 2014

neighboring areas and would mean that other isolated groups living in areas like Manu National Park will also be affected.

314. **In the DRC, oil exploration activities have been permitted in Virunga National Park which is Africa's oldest national park and home to critically endangered mountain gorillas.** Although according to the laws of DRC, activities harmful to the environment are prohibited in all protected areas, including national parks, around 85 percent of the park has been allocated as oil concessions by the DRC. Soco is the only company moving forward with the exploration plans. Other companies, such as Total, have committed not to explore within Virunga. Soco explained that the oil exploration activities would be separate from the mountain gorilla habitat and has planned to work in partnership with locals to help conserve the park while ensuring economic development. Several organizations have raised concerns regarding the potential negative impact of oil exploration activities. The World Wildlife Fund criticized that Soco is putting the livelihoods of local communities at risk and UNESCO indicated that the oil exploration would breach Virunga's World Heritage Site agreement. In addition, Soco's own environmental impact assessment showed that exploratory drilling could lead to air pollution, lung diseases, water contamination, invasive species or habitat loss in the fragile ecosystem. In June 2014, Soco announced it would withdraw from Virunga after concluding its current operational activities.

315. **The problem of co-existence between mining and tourism around the globe has also received attention recently.** The Zambian government has allowed mining in the environmentally sensitive Lower Zambezi National Park. In Asia, Mongolia's tourism sector is facing competition for the limited resources from the mining industry. Mining companies have acquired land-use rights in several places of interest; attracted young people to move from hospitality jobs to mining jobs; and received increasing support for transportation services. Although the development of the mining industry could lead to an increase in the number of business travelers, there is an urgent need for integrated and enhanced land protection laws to protect tourism products.

316. **Due to the national economic interests, the challenges between protected areas and the extractives industry are not unique to the developing countries, developed countries are also working to identify the best practices.** Although many companies do not make explicit and public no-go commitments to protected areas, it is common practice for governments and companies to employ impact mitigation responses to safeguard biodiversity both within and outside of protected areas.

317. **Within the extractive industry there are a number of examples of oil and mining companies supporting improvements in protected areas systems.** Support is provided through contributing to the creation and extension of protected areas to include biodiversity values identified through project site assessment; providing direct financial assistance or non-monetary resources to unfunded parks; and supporting the development or implementation of protected area management plan<sup>111</sup>. For example, in Sable Island National Park, Canada, Exxon Mobil developed a code of practice to guide all personnel working on aspects of the project concerning human interactions with the Sable Island environment. Parks Canada, Canada's national parks agency, is also working on its vision for Sable and a management plan to facilitate opportunities for Canadians to connect with Sable Island in a sustainable way. In Queensland, Australia, natural gas

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<sup>111</sup> Protected areas and the extractives industry: challenges and opportunities, UNEP, December, 2014

companies have put joint effort to establish a 15.5 km<sup>2</sup> national and regional park in the project area on Curtis Island in response to Queensland law that requires impacts to be offset.

318. **In order to better understand how the oil, mining and tourism industries can coexist in nature reserves and protected areas, a number of examples in other countries have been studied in detail.** These case studies are contained in **Annex 11**. They aim to illustrate some good practices implemented in a variety of locations applicable to Uganda, as well as some negative experiences, such as oil spill disaster in the Gulf Region of the United States.

#### 4.3.MFNP SURVEY - RESULTS AND FINDINGS

##### *Tourists' Views*

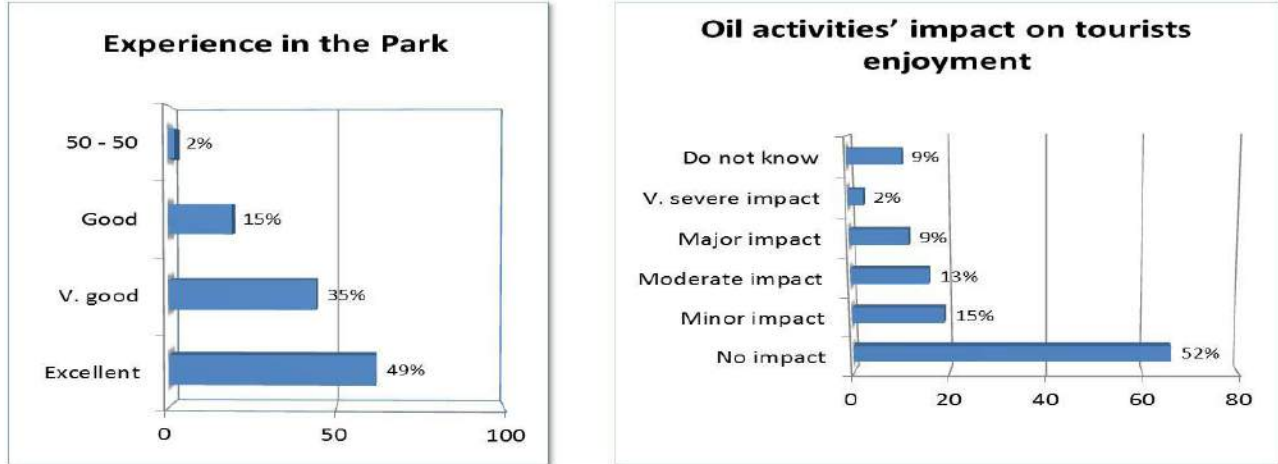
319. **To better understand current tourists' experience in the MFNP, a survey was conducted by the team from the Ministry of Tourism, Wildlife and Antiquities and the World Bank in MFNP in 2014.** The goals of the survey were to provide insight into the potential impact of oil activities on tourism and the possible mitigation measures to ensure the beneficial cohabitation of oil and tourism in the park. This survey was designed to follow up on the pilot survey of 40 respondents at 4 lodges (Paraa, Murchison River Lodge, Sambiya, and Red Chilli), conducted in March 2014, which indicated that a number of tourists had suggestions as to the improvement of their experience in the park. It was decided to expand the number of respondents and also the number of lodges where survey took place to obtain more representative results.

320. **The survey was conducted during the high season utilizing face to face interviews and self-enumeration methods to collect data.** A total of 129 valid questionnaires were gathered at 6 lodges (Paraa, Chobe, Murchison River Lodge, Red Chilli, Budongo, and Yebo Park), with a response rate of 96 percent. In addition, 38 guides and park rangers and 6 tour operators were interviewed. The complete data collection instrument and methodology are presented in **Annexes 12-15**.

321. **The tourists' survey results captured the profile of tourists visiting MNFP.** The sample indicated that the majority of the tourists were under 45 (79 percent) and visited MFNP for the first time (52 percent). The primary purpose of visiting Uganda was for vacation (58 percent). When asked about the main source of information for MFNP, 42 percent of the sample reported that they relied on travel guidebooks and travel agencies. Overall, respondents were satisfied with their experience at MFNP. Ninety-eight percent of the respondents rated their experience in the park as good to excellent and 88 percent of them would come back to the park or advise a friend to visit the park.

322. **It is important to note that at the time when the survey was conducted, Total had already completed exploration and appraisal activities and there were no oil exploration activities ongoing.** Nevertheless, 45 percent of the sample still reported that they noticed some oil activities in the park. They saw workers, tracks, oil rigs, and no entry signs etc., and 39 percent of respondents reported that oil activities had some negative impact on their experience (see **Figure 10**).

**Figure 10. Tourists' Experience at MNFP and Impact of Oil Activities on their Enjoyment**



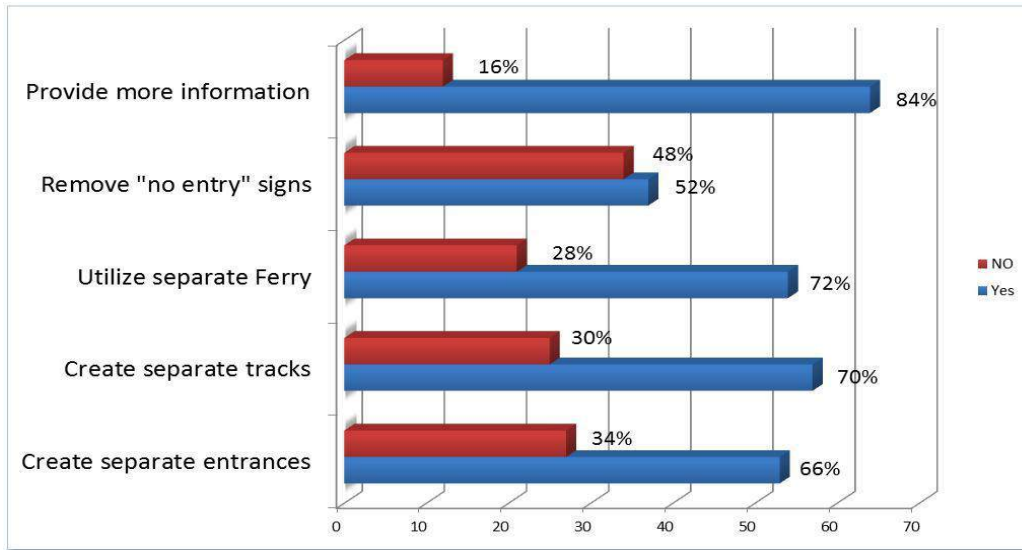
323. **In comparison, during the pilot survey which took place several months earlier, Total was still wrapping up its activities in the park and activity was more visible.** At that time, rigs were already moved out of the park, but 58 percent of respondents still reported that they noticed oil-related activities and the majority stated that these activities negatively impacted their experience in the park.

324. **When activities in the park re-start at a much higher scale during the construction phase, there will be much more visibility and noise (which was not the case during the time when both the pilot and the full-scale survey were undertaken).** As mentioned previously, Total estimates that there will be 750-800 wells drilled and up to three rigs could be drilling simultaneously in the park. There will also be a lot of congestion in the park and surrounding areas coming from the oil workers and movement of machinery.

325. **The ratio of oil workers to tourists in the park can become quite high when there will be several rigs drilling in the park simultaneously.** Assuming that 60,000 tourists visit MNFP in a year (based on UWA 2012 numbers), on an average day we would expect less than two hundred tourists in the park. If three rigs simultaneously operate within the park (~80 workers per rig), we would expect 240 workers. This would make the ratio of workers to tourists higher than 1. The ratio would fluctuate during the course of the year based on the number of rigs operating inside the park and the number of tourists at the park on a given day. It would be important to take into consideration seasonality of activities in the park and coordinate activities of the park and the oil sector to the maximum extent possible in order to at least partially mitigate the impact on tourists' enjoyment.

326. **When asked about the improvements which could be done to enhance tourists' experience at the park, the majority of the full survey respondents agreed that improvements were desirable.** Tourists were largely in favor of separating oil and tourism activities as much as possible, including utilizing separate tracks, entrances and ferries (see **Figure 11**).

**Figure 11. Improvements Suggested by Tourists**



327. **Qualitative comments provided by the tourists reflected many concerns.** A number of comments indicated that some of the tourists were particularly disturbed that the ferry was being used by both oil workers and tourists, which made it quite congested and created a rather unpleasant experience for tourists (see **Figure 12**). It is important to keep in mind that the issue of the ferry is less pressing now when oil activities in the park are minimal, but it will become particularly serious when construction phase commences. During this phase significant numbers of workers and equipment will be moved via the ferry, and tracks inside the park will also be utilized extensively by the oil trucks.

**Figure 12. Ferry across the Nile in the MFNP during Appraisal Phase in January, 2014 - Oil Workers and Tourists Travelled Side by Side**



328. **Answers also indicated that tourists need to be provided more information on oil exploration activities than is currently being provided.** The completed interviews showed that the majority of tourists (72 percent) were not aware of oil activities in the park before they arrived and 84 percent of them reported they would want information to be provided. Some of the qualitative comments indicated that many tourists were deeply concerned about the consequences of oil exploration in the park for animals and nature in general, and did not see how the benefits outweighed the costs. A number of tourists were wondering whether exploration should even be undertaken in the park given potential negative impact on wildlife and wondered if the park will be ruined as the result of oil activities. One tourist wrote: “It is awful to have an oil company in a national park. It must be strictly forbidden!” Another tourist wrote: “This is alarming! We are not being told the truth! Animals will leave and there will be no park! ...”

329. **Overall, it appeared that lack of provided information on oil issues made some of the tourists perceive oil-related activities in the park very negatively and be completely unaware of the efforts which are being undertaken by multiple stakeholders.** The situation could be quite different if visitors were provided all of the details as to how environmental impacts are being mitigated through the significant efforts of both the government and the IOCs and that the goal is to leave the park in an even better state than when oil exploration started.

330. **At present, information is provided only when tourists specifically ask for it.** While the team noted that some lodges had a Total flyer pinned to the wall in the lobby, it was not very noticeable. Other lodges did not even have such a flyer. Since most tourists only spend 2 nights at MFNP, they would hardly have time to look for information on oil-related activities and leave with the impression they formed on their own. It is important to emphasize that the information should come from the government and not from the IOCs to ensure its objectivity.

331. **The team also explored whether there was any evidence of decline in the sightings of animals due to oil activities in the park.** Seventy-seven percent of the sample reported not having seen all the species of animals they wanted to see. Two main reasons the respondents reported included: (i) not right timing and (ii) they did not expect to see the animals all the time. The respondents were also asked to report the source of these explanations, 71 percent reported from the guides and 17 percent was informed by the park officials.

### *Guides' and Rangers' Views*

332. **In addition to the tourists, the team interviewed 38 guides and park rangers to understand what oil-related comments usually came from tourists and particularly gain insights into the changing patterns of some species of animals.** The interviews yielded a number of important observations. From the guides' perspective, 87 percent of the guides who completed the interview reported their belief that decline in sightings of animals was due to oil exploration in the park. One guide noted: “The challenge is about many cars in the park especially in the areas where we find most of the Game (animals)”. Another guide stated: “Noise, light, dust, extra trucks, and more human activity scares away some animals”. To complement these findings, the results of a study on the impact of oil exploration on wildlife in MFNP showed that elephants, buffalos and giraffes were most negatively affected and activities at the oil pads led to lower densities of

the large mammals and birds in MFNP<sup>112</sup>. Guides also frequently mentioned that cat family sightings were lower due to increased activity in the park. It was also apparent that some guides did not appear informed on the oil field development cycle and had very limited idea as to what kinds of oil-related activities can be expected in the next several years.

**333. When asked about the tourists' comments, guides and rangers reported comments similar to the ones gathered as part of the tourists' survey.** The most common complaints they received from tourists related to congestion at park gates and ferry, trucks moving on the same road with tourists, low sightings of interesting species, as well as fear that the park's beauty will be destroyed as the result of oil-related activities.

### *Tour Operators' Views*

**334. The team also conducted a number of discussions with tour operators in Kampala to seek their views on the oil activities in the MFNP and impact on tourism.** The discussions with tour operators confirmed that MFNP was essential for Uganda's tourism due to its unique nature. MFNP offers tourists an opportunity to see the spectacular falls, go on game drives and boat rides (this unique combination is not available at many parks) and the park is also not very far from Kampala. The park has historically been highly popular among the tourists.

**335. All of the interviewed tour operators were well aware of oil activities taking place in MNFP.** Some of the concerns highlighted by them included visual intrusion, presence of large numbers of oil workers and trucks, lack of adequate restoration of sites, and use of the same ferry by the oil workers and tourists. Some tour operators also voiced fears about an increase in poaching activities at MNFP due to presence of a large number of workers in the park, as well as migration of people from other areas closer to the oil fields development area in search of jobs.

**336. Tour operators argued that it was crucial to ensure that MNFP does not lose its attractiveness due to potentially lower sightings of animals and visual intrusion as the result of oil activities.** Negative experience at MFNP could even impact the tourists' overall impression of Uganda as a tourism destination. One important point for consideration, however, is that rather few international tourists book tours to Murchison Falls exclusively; most go on a safari circuit tour which includes several parks. Even if the tourists were to experience some small issues during the safari ride at MFNP, they would still have several other parks to visit and improve their overall impression of Uganda's safaris. Another important point is that once construction phase is completed, oil activity in the park will be much more limited during the production phase. Finally, MNFP offers a lot of other activities besides safaris, which are not affected by oil exploration. These can be leveraged to the maximum extent to compensate for any temporary visual intrusion during the construction phase.

### *Restoration Sites*

**337. During the visit to MFNP, the survey team also examined some of the sites within the park which were restored by Total after oil exploration was over.** It was noted that some

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<sup>112</sup> S. Prinsloo, P. Mulondon, G. Mugiru, and A.J. Plumptre, *Measuring Response of Wildlife to Oil Operations in Murchison Falls National Park*, September, 2011

restoration sites needed more effort to mitigate the potential negative impact. For example, similar vegetation that was found on the site originally needs to be planted for animals to come back. **Figure 13** shows that only grass has been planted but not the trees. It also shows that water ponds are present in previous oil rig areas that could be a health hazard to wildlife. Comments about inadequate site restoration were also voiced by several tour operators.

**Figure 13: Restoration Sites in MFNP**



#### **4.4. OBSERVATIONS AND RECOMMENDATIONS**

##### *Lessons Learned*

338. **The cases studies presented in this chapter and Annex 11 provide examples of the cohabitation of oil extraction and tourism**, in order to foster economic development through growth in both the oil and tourism sectors, continuous collaboration between different stakeholders is critical to optimize growth while identifying, avoiding, and mitigating risks.

339. **Oil field development is a long and complex process which involves different activities at each phase.** The impacts on tourism are different in each of these phases. The impact on tourism will not be limited to natural capital, but also human capital, services and the regional economy.

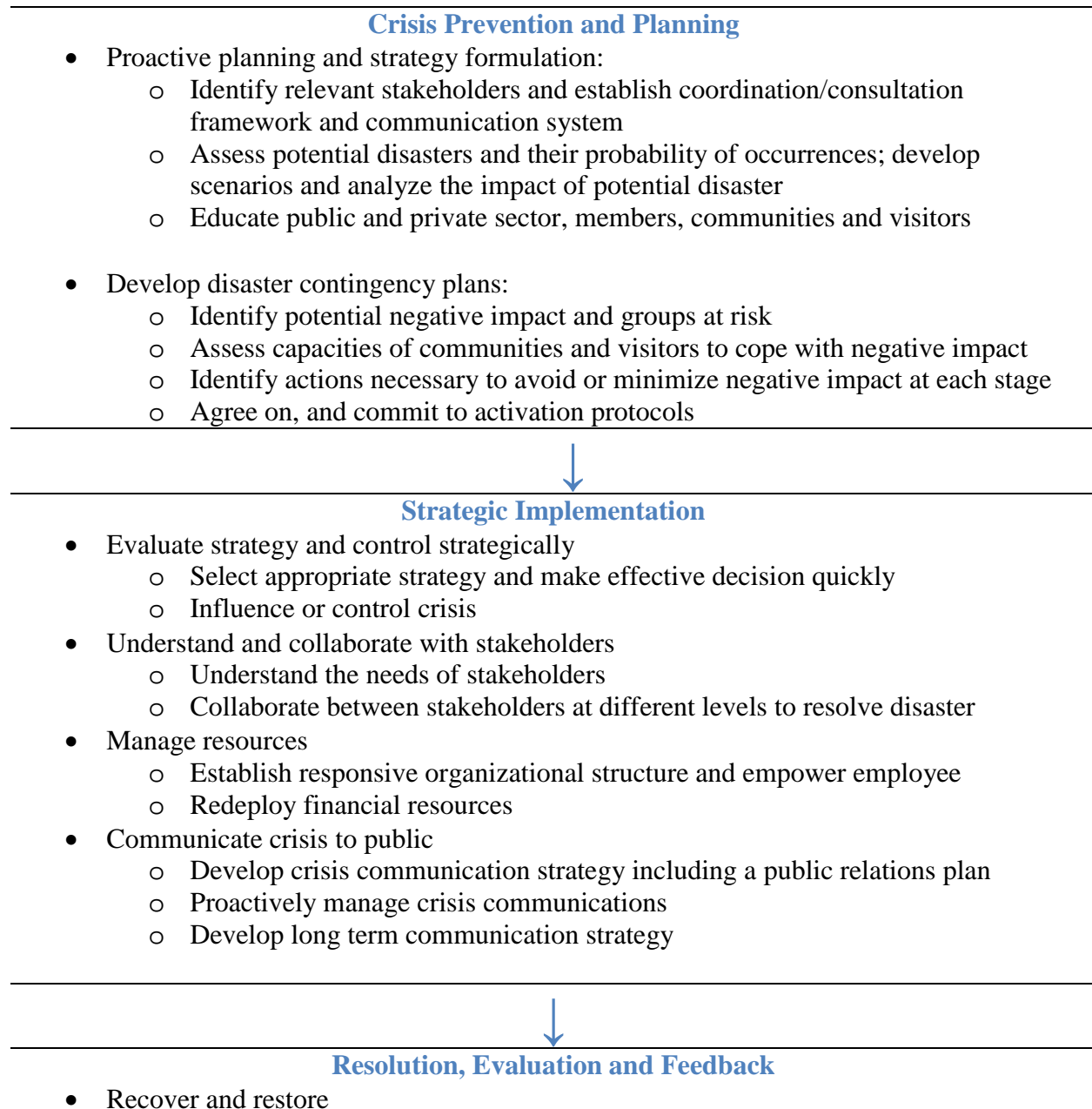
340. **In a disaster scenario, the scope of impact can go beyond the geographic area where the accident takes place.** In addition to the direct impact on travel demand, there is the more extensive impact on the regional economy and livelihoods of local communities. The duration of impact can last long, particularly in terms of the damage to a destination's brand and its ability to attract future investments and tourists. Tourists' perceptions towards a destination are difficult to manage and the recovery efforts require extensive resources and technical assistance.



## ***Policy Recommendations***

341. **Based on the results of survey and the lessons learned from other countries' experiences, Uganda's stakeholders and policy makers need to develop a strategic framework to protect and promote the co-existence of oil and tourism sectors during the lifecycle of oil fields development.** There are three main stages in managing such cohabitation strategically:

**Table 22: Strategic Management Framework<sup>113</sup>**



<sup>113</sup> Adapted from: Richie, B.W., *Crisis and Disaster Management for Tourism*, 2009

- Restore destination to pre-crisis situation
- Use crisis as agent of change
- Evaluate and provide feedback
  - Evaluate the effectiveness of strategies and responses
  - Reassess the destinations

342. **Currently, Uganda is at the prevention and planning stage which is the most critical stage to foster the desired development in both oil and tourism sectors.** Besides the national oil spill contingency plan which is under preparation, the table below summarizes some specific recommendations to address the identified potential negative impacts.

**Table 23: Issues and Policy Recommendations**

Main Issues	Policy Recommendations
Potential deterioration of natural and wildlife assets	<ul style="list-style-type: none"> <li>● <b>Develop integrated landuse plan.</b> It is critical to assess the diverse activities in the national parks and develop an integrated landuse plan for the entire oil extraction project cycle. Areas with high tourism value (for example, where animals are sighted most frequently) should not be subject to oil extraction activities. At the same time, areas inside the park where animal sightings have historically been low could be less valuable for tourists and activities could be conducted there. Such an assessment and landuse plan would minimize the negative impacts on animals, tourists' experience and for Ugandans linked to the sector.</li> <li>● <b>Intensify restoration efforts in the areas where exploration has finished.</b> It is important to ensure that vegetation is restored and trees are planted in these areas for the animals to come back to them. Water accumulation around old rig areas needs to be removed.</li> <li>● <b>Continue monitoring the migration and sightings patterns of the key animal species.</b> During the construction phase, there will be extended disturbances for animals, and changes in their behavior will need to be monitored.</li> </ul>
Disruption of tourism activities	<ul style="list-style-type: none"> <li>● <b>Separate oil activities from tourism activities as much as possible and focus on tourism offerings which are not affected by oil.</b> Some of the possible suggestions include using separate entrances, tracks, and ferries for oil workers and tourists in the park. Moreover, more weight needs to be given to the development of tourism activities in the park which would not be impacted by the oil. For example, bird watching, walking safari market in other</li> </ul>

locations of the park, boat rides can be very attractive for tourists and at the same time not impacted by the oil activity.

- **Provide sufficient information to the tourists and guides/rangers in the park to ensure they possess up-to-date information on the oil-related activities in the park.** Based on the results of the survey, the majority of tourists, guides, and tour operators wanted to be provided more information. The information should not come from the IOCs but the government to ensure its objectivity.
- **Conduct periodic surveys of tourists' and guides'/rangers' perceptions once oil-related activity re-starts in the park during the construction phase.** The results of the current survey can be used as the baseline, as exploration and appraisal activities were finished by the time the survey was administered. It will also be beneficial to make projections of the ratio of oil workers to tourists in the park during the upcoming construction phase and make appropriate changes into the oil-related activities plans if the ratios are expected to be very high at some point in time.
- **Engage cross-sector stakeholders.** It is crucial to engage with multiple stakeholders and local communities at the early stage of development to enable full understanding of the two industries and foster collaboration. At present, the multiple agencies in the tourism sector still lack of coordination. Moving forward, a greater scale of consultations and coordination is needed to manage the risks and ensure the growth in both industries.
- **Establish operational guidelines and legislation.** One policy priority to promote the combined growth of the oil and tourism sectors is to enhance the existing operational regulations in national parks to mitigate the risks. A priority is to provide training and clear guidelines for the workers involved in oil extraction in the parks. The public sector needs to provide adequate supervision to ensure the operational guidelines are fully complied with by the oil companies. At the national level, legislation needs to be in place to specify enforcement procedures for the guidelines, as well as identification of areas that should not be subject to exploration activities and of endorsement of the conservation strategy.
- **Improve community readiness and capacity building.** It would be essential to provide effective training to the local communities, lodging and park staff in the national parks regarding ongoing oil activities, engage local Ugandans during the consultations and provide updated information regularly, as well as make sure that

	<p>local communities understand the benefits of diverse tools for local economic growth and have the necessary resources for them to adopt the changes. Given that there will be more population moving to the park areas, it is also critical to ensure the distance between the human settlements and the limits of the park. Communities need to be educated about the potential environmental and wildlife issues. At the same time, training should also be provided to the oil workers in the national park to understand the tourism. Improving capacity for planning and management in the public sector is also critical.</p>
<p>Threat of negative destination brand</p>	<ul style="list-style-type: none"> <li>• <b>Develop communication strategy.</b> Communication strategy is critical both internally and externally. Tourists and stakeholders need to be informed about activities in the parks to limit the misperceptions and mitigate negative impact on the destination brand.</li> </ul>
<p>Threat of oil spill disaster</p>	<ul style="list-style-type: none"> <li>• <b>Require IOCs to put up an environmental bond.</b> An environmental bond needs to be issued to pay for environmental damages in case the spill occurs and can be a valuable complement to other regulatory approaches. It covers environmental damage and restoration of the affected environment. With the bond in place, the oil producer has some of its own money at stake, and is further motivated to make good choices to improve environmental protection.</li> <li>• <b>Implement disaster prevention mechanism.</b> Since the process of oil extraction is lengthy, a disaster prevention mechanism is important to manage the risks in each phase. Monitoring and assessing the impact of each phase is also an effective way to minimize the likelihood of disaster. Effective prevention and preparation can also enable a faster and more effective response to the potential disaster.</li> <li>• <b>Develop disaster response strategy and action plans.</b> Fast response to the disaster can minimize the negative impacts on tourism and speed up the recovery. The existing institutional infrastructure gaps need to be addressed in order to provide the capacity to respond to the disaster as fast as possible.</li> </ul>

## CONCLUSIONS AND RECOMMENDATIONS

### KEY CONSIDERATIONS FOR NATIONAL CONTENT DEVELOPMENT

343. **Discovery of oil resources offers a unique opportunity to Uganda to leverage these resources for the development of the economy.** Even before oil production commences and oil revenues start coming in, local private sector can participate in supplying the oil industry and grow their business and national economy in general. The majority of suppliers in Uganda would not be expected to become prime contractors for the IOCs and would often fall in the bottom of supply chain, which has implications for the national content policy design. In order to achieve maximum impact for the economy, some of the considerations to be kept in mind by the policymakers in Uganda include importance of encouraging FDI into the oil and gas sector, addressing constraints faced by domestic oil and gas suppliers, and ensuring sustainability of national content development programs.

#### *I. Encouraging FDI in the oil and gas industry of Uganda*

344. Policymakers need to encourage FDI in the oil and gas industry of Uganda. This industry is very new for Uganda and local capacity in many sectors needed to supply the IOCs is quite low. While it might be possible to develop local capacity in some sectors to reach the level of quantity and quality required by the IOCs, it might not be feasible in others.

345. In sectors which are too complex to develop locally in a short period of time, few joint ventures would be expected to be established due to limited local capacity, and MNCs need to be encouraged to set up subsidiaries in Uganda. By setting up operations in Uganda, MNCs would greatly benefit Uganda's economy from the standpoint of technology transfer, employment and sourcing of local goods/services to carry out production. As mentioned above, in most cases, domestic suppliers would not be expected to become prime contractors to IOCs anyway, so the opportunities to become sub-contractors of subsidiaries of foreign market leaders would be quite valuable for them.

346. For those sectors which already exist in Uganda or capacity can be easily developed, there would be more feasibility to establish joint ventures, and they should be greatly encouraged. Each individual deal would be structured depending on unique circumstances and requiring a specified percentage of local ownership is not recommended.

347. National content needs to be defined in terms of value addition in Uganda, as opposed to ownership of the company performing the value addition. This is essential to recognize the benefits of FDI in Uganda.

348. Some of the countries which offer useful lessons to Uganda in balancing "localization" and "nationalization" include Malaysia and Brazil. They understood higher benefits of FDI compared to the benefits of mandating local ownership, and focused on attracting foreign firms to the country so that know-how could be transferred to the nation gradually.

## ***II. Developing competitive local industries***

349. For Uganda's private sector, significant opportunities are opening up in supplying goods and services demanded by the oil industry. Given the highly entrepreneurial culture of Ugandans, this channel of transmitting benefits of the oil industry into the economy seems very promising. Unfortunately, many emerging opportunities for Ugandan suppliers might not materialize due to a number of constraints which local private sector is presently facing.

350. It is essential to address the constraints which the private sector is facing in supplying the oil industry in a timely manner. Given that the construction phase when the majority of contracts will be tendered is expected to commence in a couple of years (assuming the FID is made), support to the private sector needs to be provided as soon as possible. The earlier private sector receives support, the more time enterprises will have to build their capacity.

351. Interventions can be designed and implemented to address general constraints for all suppliers, but can also be more focused, targeting specific sectors and regions to achieve more impact. In addition, strategies need to be designed for the periods following the scale-down of procurement by the IOCs when the construction phase is over.

### ***(a) Addressing general market failure***

352. All oil and gas suppliers in Uganda, especially MSMEs, face a number of constraints, including lack of information on opportunities in the oil and gas sector; business environment unconducive to private sector growth; challenges with access to credit; inadequate infrastructure; difficulties with meeting IOC quality standards; difficulties with meeting high volume/quantity requirements; limited business knowledge of suppliers; and other constraints.

353. Interventions can be designed to address the general market failure and alleviate these constraints for all the suppliers of the oil and gas industry. Such interventions include establishment of the IEC to build the capacity of local suppliers in a number of areas, including, inter alia, quality standards, bidding on contracts, preparing business plans, financial statements and loan applications; implementation of business environment reforms; assistance with improving access to finance for suppliers; and alleviation of infrastructure bottlenecks.

### ***(b) Promoting specific sectors for national content development***

354. In addition to alleviating constraints common for all oil and gas suppliers in Uganda, additional support can be provided to priority sectors for national content development. Such interventions have the potential to solve bottlenecks in a focused way. The IBS identified twenty five sectors with high potential for local content (transportation and logistics, food supply, domestic waste management, facility management, manpower agency, work safety products, road construction and others). These are the sectors which are less technical and where local capacity exists. Unfortunately, there are only two sectors (security and cement manufacturing) among the twenty five which are meeting O&G standards and have a quantity gap of less than 10 percent. The remaining twenty three sectors face either quantity, or quality gap, or both. Without support, national content in these sectors will be much lower than it could be. Support can be provided

through matching grants for technology improvement, quality certification, infrastructure interventions benefitting these sectors, dedicated financing programs.

*(c) Promoting specific regions*

355. Additional support can also be targeted to specific regions of the country to improve competitiveness of the private sector there. Due to the importance of Kampala for national economy and availability of many businesses which could serve the oil and gas industry there, it is strongly recommended that Kampala become the center of national content initiatives. Further strengthening of the capacity of enterprises in Kampala would be the priority. The IEC would be expected to be headquartered in Kampala.

356. The possibilities for involving the private sector of the Albertine Region in the oil and gas sector as suppliers also need to be explored. The prospect of supplying food to the oil camps appears a major opportunity for the region given that most of the population is involved in agriculture. Achievement of high level of participation of the Albertine Region is highly desirable—both from the social and economic standpoint. The GoU has several approaches to choose from, such as NGO, large scale investor, or agro industrial park. Furthermore, in order to build the capacity of the private sector in the Albertine Region, one or several satellite IEC could be set up there. These centers would facilitate the inclusion of local suppliers in the supply chain of the IOCs.

*(d) Ensuring sustainability of national content interventions*

357. When designing national content development programs in Uganda, it is important to keep in mind that the ultimate goal is the creation and development of the competitive and sustainable local businesses which would be successfully operating well beyond the construction phase of the oil and gas industry. Promotion of inefficient businesses which are given contracts with the IOCs solely to meet national content targets would breed unproductive practices and only increase the costs. Both the authorities and the businesses need to keep in mind that the high demand from the oil and gas sector will be very short lived. After the demand of the O&G industry declines, businesses which benefitted from the IOC contracts will be expected to continue serving other industries in Uganda and abroad, and for this they need to be competitive.

358. A labor mobility strategy (e.g., redeploying skilled professionals from O&G industry to other fields) needs to be carefully thought through. Strategies for redeploying suppliers to other industries also have to be developed. When selecting priority sectors for national content development, it would be particularly important to consider possibility of using products of these sectors in other industries in Uganda and/or overseas.

**359. The GoU, the IOCs, the local private sector and the development partners all have a role to play in supporting the development of national content in Uganda.** Some of the interventions which could help to alleviate these constraints are presented in **Table 24** below. Multiple national content support initiatives are already underway. These include, inter alia, the establishment of the IEC, documentation of O&G quality standards, and simplification of processes of business registration and licensing.

**Table 24: Key Interventions to Enhance Participation of Uganda’s Suppliers in the Oil and Gas Industry**

Challenge	Desired Outcomes/ Timeframe	Roles of Key Stakeholders			
		IOC/EPCs	Government Authorities (MoFPED, MEMD, BoU, MTIC, local governments)	Private Sector (e.g., associations, banks)	Development Partners
<b>ADDRESSING GENERAL MARKET FAILURE</b>					
<p><b>1. Lack of information on opportunities in the oil and gas sector for local suppliers</b></p> <p><i>Vulnerable groups (small businesses, women...) have even less information than others</i></p>	<p>All interested local suppliers, including MSMEs, have access to information on the pipeline of procurement opportunities with the IOCs through a public website and IEC. “Connection” to IOCs/EPCs is not needed to obtain information.</p> <p><b>12-18 months</b></p>	<p>-Submit their procurement plans to the government showing projected demand for goods and services -Conduct workshops with suppliers on a regular basis to communicate upcoming opportunities -Create a supplier register</p>	<p>-Enforce the requirement to communicate demand by IOCs -Ensure access to procurement opportunities for all suppliers; make effort to involve small suppliers and women -Monitor numbers of MSME applications per bid and require both IOCs and EPCs to report on the national content -Support the establishment of an IEC</p>	<p>-Raise awareness among their members on upcoming opportunities and how to apply for them (<i>private sector associations</i>)</p>	<p>-Provide capacity-building to the authorities on M&amp;E and approaches of engaging vulnerable groups of suppliers</p>
<p><b>2. Business environment uncondusive to private sector growth</b></p>	<p>Environment created for smooth business operations</p> <p><b>24-36 months</b></p>	<p>-Communicate challenges faced in the business environment to the authorities</p>	<p>-Implement reforms to create an environment for smooth business operations (e.g., simplification of the process of business registration, business licensing, obtaining construction permits, paying taxes, registering property etc.)</p>	<p>-Communicate challenges faced by enterprises to the authorities (<i>private sector associations</i>)</p>	<p>Provide support to the authorities with the implementation of the business environment reforms</p>
<p><b>3. Challenges with accessing credit for local suppliers:</b></p> <p><i>-Low financial literacy of suppliers -High perceived risk of small suppliers to financial institutions due to undeveloped financial infrastructure -Lack of long-term resources in the system</i></p>	<p>-O&amp;G suppliers can access credit at financial institutions -Counseling is available at a centralized location on bookkeeping, how to prepare a loan application and a business plan, etc. -IOCs/EPCs modify their procedures to improve chances of suppliers to obtain credit where possible</p> <p><b>12-18 months</b></p>	<p>-“Pre-qualify” suppliers, making them more likely to obtain financing from financial institutions. -Expedite invoice payment -Share information about suppliers with financial institutions to reduce perceived risk -Issue more definitive contracts as opposed to “framework” contracts</p>	<p>-Implement reforms to strengthen financial infrastructure (e.g., credit reporting system, insolvency, secured transactions framework, implementation of collateral registry) -Provide support for pension system reform and capital markets development -Set up credit lines and risk-sharing facilities for O&amp;G suppliers -Avail training to suppliers to prepare financial statements and loan applications (through the IEC)</p>	<p>- Build awareness among their members of the available programs (<i>private sector associations</i>) -Develop new products targeting O&amp;G suppliers (financing backed by IOC contracts) (<i>financial intuitions</i>)</p>	<p>-Provide funding for credit lines, risk sharing facilities, and financial infrastructure -Build capacity of the authorities and the private sector (MSME and financial institutions) -Make investments in eligible suppliers (IFC).</p>
<p><b>4. Inadequate infrastructure:</b></p> <p><i>- Poor road infrastructure -Lack of electricity access</i></p>	<p>Infrastructure is adequate for businesses to operate smoothly</p> <p><b>24-36 months</b></p>	<p>- Communicate challenges faced to the authorities</p>	<p>-Alleviate major infrastructure bottlenecks (access to electrical networks, water). -Explore possibilities for establishing an industrial park with shared facilities</p>	<p>-Communicate challenges faced by enterprises to the authorities (<i>private sector associations</i>)</p>	<p>Provide funding for the key projects and capacity-building of authorities</p>



<p><b>5. Difficulties meeting IOC quality standards:</b>  - Differing standards between the IOCs;  - High costs of certifications;  - Challenges with finding service providers</p>	<p>-Standards are harmonized between the IOCs  -Suppliers know what standards apply to activities  -Suppliers can find BDS providers in Uganda</p> <p><b>12-18 months</b></p>	<p>-Harmonize the quality standards between the IOCs so that local enterprises do not need to meet separate standards for each of the three IOCs</p>	<p>-Complete the documentation of the required standards  -Communicate standards to suppliers and provide capacity-building on them through the IEC</p>	<p>-Build awareness among their members of the available programs (<i>private sector associations</i>)</p>	<p>-Provide TA to the authorities with the strengthening of quality infrastructure  -Provide funding for matching grants  -Provide TA to BDS providers</p>
<p><b>6. Difficulties meeting high volume/quantity requirements</b>  - Contracts are large and require suppliers to have significant capacity  -Financing to increase production capacity is difficult to obtain</p>	<p>- There are more contracts with smaller volume/ quantity requirements for which more suppliers would be eligible  -Financing, including for medium and long term, is available for eligible suppliers</p> <p><b>12-18 months</b></p>	<p>-Unbundle contracts where possible to ensure that more local suppliers can become eligible to bid</p>	<p>- Establish a requirement to unbundle contracts  -Monitor numbers of MSME applications per bid  -Provide assistance with access to credit to enterprises (see #3 above)</p>	<p>-Build awareness among their members of the available programs (<i>private sector associations</i>)  -Provide financing (see #3) (<i>financial intuitions</i>)</p>	<p>See #3 above</p>
<p><b>7. Limited business knowledge of suppliers:</b>  -Limited knowledge on how to prepare bids, what standards to use etc.</p>	<p>Suppliers have a centralized location where they can obtain training</p> <p><b>12-18 months</b></p>	<p>Establish an IEC which would provide comprehensive local content development programs to facilitate participation of local suppliers in the oil and gas sector</p>			
<p><b>DEVELOPING PRIORITY SECTORS AND REGIONS</b></p>					
<p><b>1. A number of sectors have substantial gaps in meeting quality and quantity requirements of the IOCs</b></p>	<p>Support is provided to enterprises in key sectors to upgrade their facilities to meet standards, increase volume of production etc.</p> <p><b>12-18 months</b></p>	<p>-Communicate projected demand for goods and services  -Pre-qualify eligible competitive suppliers</p>	<p>- Alleviate infrastructure bottlenecks in key areas  -Establish dedicated credit facilities  - Provide matching grants for quality certifications  -Establish IEC in priority regions  -For sectors where local capacity cannot be easily developed, provide incentives to the foreign companies to set up subsidiaries in Uganda</p>	<p>- Facilitate supplier business relations, encourage formation of JVs (<i>private sector associations</i>)  -Provide financing (see #3) (<i>financial intuitions</i>)</p>	<p>- Provide funding for support of select sectors/regions  - Provide capacity-building to enterprises</p>
<p><b>2. Priority regions for national content development have not yet been selected</b></p>	<p>Priority regions identified and their key challenges addressed</p> <p><b>12-24 months</b></p>				
<p><b>ENSURING SUSTAINABILITY OF NATIONAL CONTENT INTERVENTIONS</b></p>					
<p><b>No strategy exists to facilitate labor mobility and develop intersectoral linkages for the periods following the completion of construction</b></p>	<p>A clear strategy to redeploy both skilled labor and O&amp;G suppliers after the completion of construction is developed with participation of all key stakeholders</p> <p><b>Within 12 months</b></p>	<p>-Communicate timelines for scaling down procurement  -Provide inputs for the strategy for periods following the completion of construction</p>	<p>-Manage expectations of the enterprises  -Develop a strategy for periods following the completion of construction  -Leverage the IEC to provide capacity-building to suppliers on re-focusing their operations</p>	<p>-Raise awareness of suppliers of short-lived nature of O&amp;G demand and encourage to expand customer base</p>	<p>-Provide TA to the authorities on possible strategies to facilitate labor mobility and encourage intersectoral linkages  -Provide capacity-building to enterprises</p>

## CO-EXISTENCE BETWEEN OIL AND TOURISM

360. **The GoU needs to be conscious of the relationships between the emerging oil sector and tourism, which is one of the long-term drivers of Uganda's economy.** 40 percent of Uganda's known oil reserves are found in the MFNP, one of the most popular parks in Uganda. When construction phase commences, Total estimates that there will be 750-800 wells drilled and up to three rigs could be drilling simultaneously in the park. There will also be a lot of congestion in the park and surrounding areas coming from the oil workers and movement of machinery, causing disturbance for animals and tourists.

361. **To better understand current tourists' experience in the MFNP, a survey was conducted by the team from the MoTWA and the World Bank in MFNP in 2014.** The goals of the survey were to provide insights into the potential impact of oil activities on tourism and the possible mitigation measures to ensure the beneficial cohabitation of oil and tourism in the park.

362. **At the time when the survey was conducted, Total had already completed exploration and appraisal activities and there were no oil exploration activities ongoing.** Nevertheless, the survey yielded a number of useful observations:

- 45 percent of the sample still reported that they noticed some oil activities in the park. They saw workers, tracks, oil rigs, and no entry signs.
- 39 percent of surveyed tourists reported that oil activities had some negative impact on their experience.
- When asked about the improvements which could be done to enhance tourists' experience at the park, the majority of the respondents agreed that improvements were desirable. Tourists were largely in favor of separating oil and tourism activities, including utilizing separate tracks, entrances and ferries. Answers also indicated that tourists need to be provided more information on oil related activities than is currently being provided.

363. **In addition to the tourists, the team interviewed guides and park rangers to particularly gain insights into the changing patterns of some species of animals.** 87 percent of the guides who completed the interview reported their belief that decline in sightings of animals was due to oil exploration in the park. Guides also frequently mentioned that cat family sightings were lower due to increased activity in the park. Finally, it was apparent that some guides did not appear informed on the oil field development cycle and had very limited idea as to what kinds of oil-related activities can be expected in the next several years.

364. **It is essential for the GoU to ensure that appropriate measures are taken to minimize disruption to the tourism activity at MFNP while oil activities are ongoing and affected sites are restored following the completion of activities.** Based on the results of survey and the lessons learned from other countries' experiences, Uganda's stakeholders and policy makers need to develop a strategic framework to protect and promote the co-existence of oil and tourism sectors during the lifecycle of oil field development. **Table 25** below shows key interventions to support the co-existence between oil and tourism at MFNP.

**Table 25: Key Interventions to Support the Co-Existence between Oil and Tourism**

Challenge	Desired Outcomes/ Timeframe	Roles of Key Stakeholders			
		IOCs	Government Authorities (MoTWA, UWA, UTB, local governments)	Private Sector (e.g., lodges, tour operators, guides)	Development Partners
<b>1. Information on oil-related activities in the park is limited and mainly provided by the IOCs</b>	-An oil and tourism communication unit endorsed by the government is established to coordinate between stakeholders. -Stakeholders, including tourists and guides, are provided with up-to-date information from objective sources. <b>12-18 months</b>	-Provide updated information on the timeline and extent of various oil activities to government authorities	- Establish an oil and tourism communication unit to enable efficient coordination among various agencies -Monitor IOCs' ongoing oil-related activities at MFNP and review documentation submitted by the IOCs - Provide information on oil-related activities in the park to the key stakeholders (e.g., tourists, guides)	-Raise significant issues to the authorities	-Build capacity of the authorities in monitoring of oil-related activities in the park -Provide support with the establishment of the oil and tourism communication unit
<b>2. Potential deterioration of natural and wildlife assets</b>	-Comprehensive land use plan developed; -Sites are properly restored <b>12-18 months</b>	-Intensify the efforts for sites restoration	- Visit restored sites, verify if they have been restored appropriately and require prompt remedial action if necessary -Develop and implement an integrated land use plan for the entire oil extraction cycle	-Communicate sightings patterns of the key animal species and any concerns to the authorities	-Provide support for the continued monitoring of the changes in vegetation, migration and sightings patterns of the key animal species
<b>3. Disruption of tourism activities</b>	-Oil activities and tourism activities are separated as much as possible -Development of new tourism offerings in the park which are not impacted by oil -Operational guidelines and legislation issued <b>12-18 months</b>	-Provide information about upcoming activities to the authorities -Provide training to oil workers regarding tourism activities in the park and implement operational guidelines	-Engage cross-sector stakeholders and foster collaboration -Enhance existing tourism offerings -Conduct periodic surveys of tourists' experience in the park -Issue legislations and regulations -Provide infrastructure in the park necessary for separation of oil activities from tourism	- Collaborate on the tourism products development -Provide insights to the authorities and IOCs regarding any operational challenges	-Build capacity of the authorities and the private sector -Provide support to tourism MSMEs -Provide funding for infrastructure
<b>4. Threat of negative destination brand and lower competitiveness</b>	-Communication strategy developed <b>12-18 months</b>	- Provide information about upcoming activities to the authorities	- Increase destination marketing efforts to mitigate misperception -Enhance existing tourism offerings	-Offer alternative tourism products	-Provide funding for the marketing campaign -Capacity-building of government authorities
<b>5. Threat of oil spill disaster</b>	-Disaster prevention mechanism developed and implemented -IOCs put up environmental bond -Disaster response strategy and action plans developed <b>18-24 months</b>	-Put up environmental bond -Follow safeguards guidelines -Implement disaster prevention mechanism	- Monitor and assess the impact of each oil field development phase -Finalize oil spill contingency plan, improve institutional arrangement and capacity to address the challenges if oil spill disaster were to occur	- Raise significant issues to the authorities	- Capacity-building of government authorities

## ANNEX 1: ACTIVITIES AT EACH STAGE OF OIL & GAS VALUE CHAIN - GOODS & SERVICES<sup>114</sup>

Goods	Exploration	Development	Production	Oil & Gas Treatment & LNG	Transport & Storage	Refining	Petrochem.	Primary Distribution
<b>Subsea Equipment</b>	Wellheads , Sub-surface Safety Valves, Compressors, Meters, Separators, Risers, Umbilicals							
<b>Downhole Equipment</b>	Casing Hardware, Completion Equipment , Drilling tools, Wireline Logging Tools, Perforating Systems							
<b>Tubular Goods</b>	Drill Pipe, Casing, Tubing, Manifolds							
<b>Rigs, Platforms &amp; FPSOs</b>	Land Rigs, Offshore Fabrication, Vessel Conversions, Rig Equipment, Unit Manufacturing			Steel Structures, Production Topsides			Steel Structures	
<b>Rotating Equipment</b>		Compressors, Blowers, Turbines & Pumps						
<b>Static Equipment</b>		Surface Equipment, Columns & Exchangers	Transport Pipes, Tanks	Columns & Exchanges (e.g. Reactors, Vessels)				
<b>Pipes, Valves &amp; Fittings</b>		Pipes, Valves & Fittings						
<b>Electrical Equipment</b>		Transformers & Switchboards, Drive Motors, Cables						
<b>Instrumentation &amp; Control</b>	Sub-surface Sensors, Surface Production Monitoring (e.g., Separators, Multi-phase Flowmeters)			Control Systems & Valves, Instruments & Analysers				
<b>Fluids &amp; Chemicals</b>	Drilling & Completion Fluids, Upstream Specialty Chemicals			Catalysts & Additives				
<b>Other Materials</b>	Corrosion protection, Insulation, Coating & Painting							

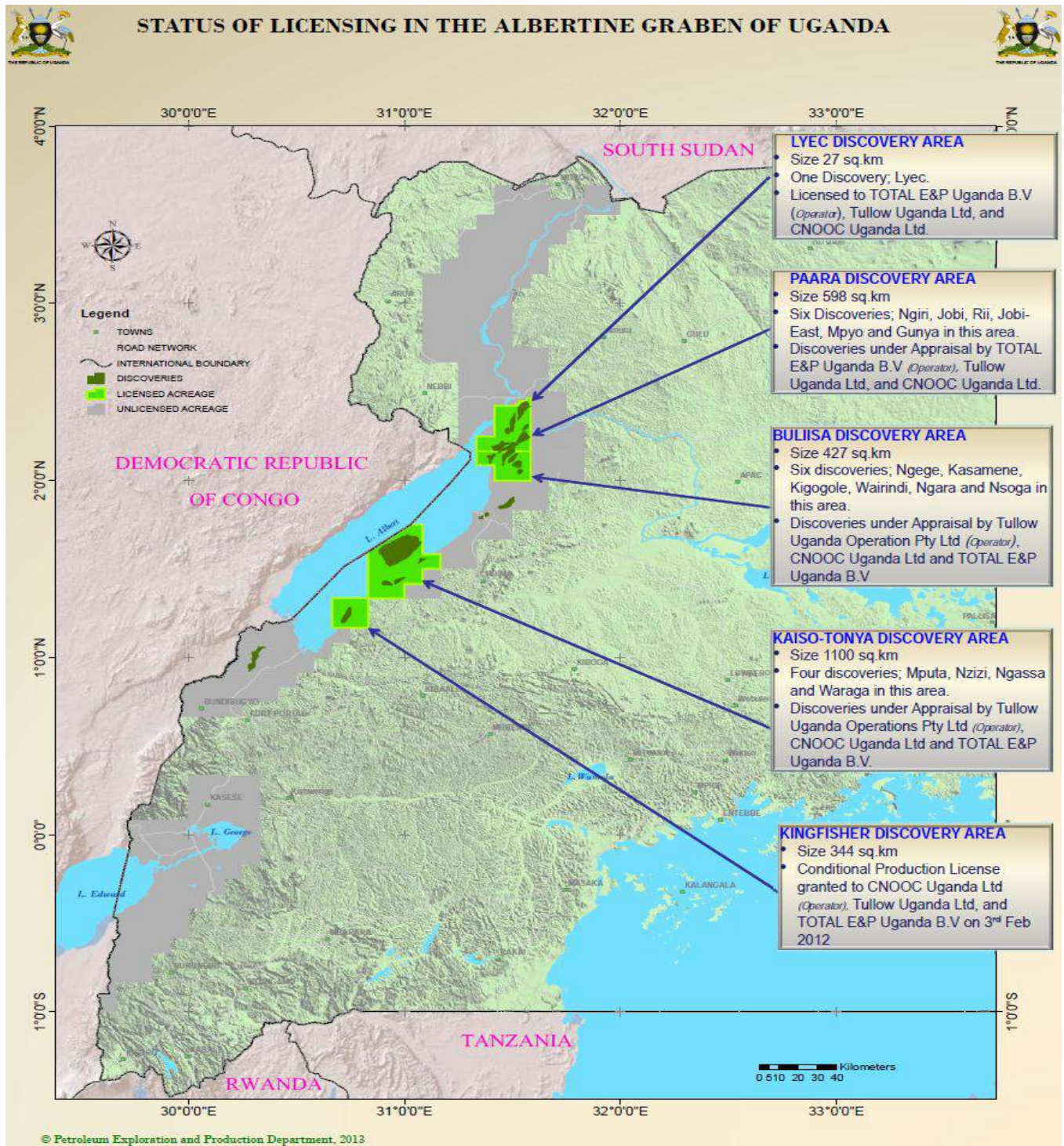
Source: World Bank data.

<sup>114</sup> Tordo S, Warner M., Manzano O. and Anouti Y. Local Content Policies in the Oil & Gas Sector. The World Bank. 2013

Services	Exploration → Development → Production → Oil & Gas Treatment & LNG → Transport & Storage → Refining → Petrochem. → Primary Distribution						
	<b>Geophysical Services</b>	Acquisition of Seismic Data, Data Processing, Imaging of Reservoirs, Management of Data					
<b>Drilling Services</b>	Land Contract Drilling, Offshore Contract Drilling, Directional Services, Mud Logging						
<b>Reservoir Services</b>	Logging While-Drilling (LWD) , Wireline Logging, Production Testing Services						
<b>Well Services</b>	Coil Tubing Services, Well Servicing , Rental & Fishing Services						
<b>Downhole Pumping</b>	Downhole Pumping Services						
<b>Completion Services</b>	Casing & Tubing Services , Coating and Piping, Completion Services						
<b>Engineering &amp; EPC</b>	Engineering, Procurement, Construction and Construction Management				Technology Licensors		
<b>Erection &amp; Trade Works</b>	Upstream Erection & Civil Works		Erection & Civil Works (Pipelines, Depots, Jetties &Terminals)		Erection & Civil Works (Refineries and Processing Plants)		
<b>O&amp;M Services</b>	Facilities O&M, Maintenance, Ship & Rig Maintenance, Dry-Docking						
<b>Logistics</b>	Aviation, Land Transportation Services, Operations Support Vessels, Heavy Goods Transport, Catering						
<b>Utilities</b>	Fuel, Steam, Power, Water Supply and Treatment, Industrial Gases						
<b>Other Services</b>	Auditing and Certification, inspection, Surveying, Hot-Tapping & Freezing, HSE Services, Consulting				Inspection, Vetting, Pigging		

Source: World Bank data.

## ANNEX 2: STATUS OF LICENSING IN THE ALBERTINE GRABEN OF UGANDA<sup>115</sup>



## ANNEX 3. LOCAL CONTENT OBJECTIVES OF THE NATIONAL OIL AND GAS POLICY

### *Objective 7: To ensure optimum national participation in oil and gas activities*

Strategies:

- Promote state participation in Production Sharing Agreements with a view of providing better opportunities for the state to understand the basis for decisions in exploration, development and production, together with acquiring the skills necessary for commercial management of the sector
- Promote use of the country's materials, goods and services in oil and gas sector activities.
- Promote participation of the country's entrepreneurs in providing goods and services to the sub-sector as a way of optimizing the contribution of oil and gas activities to the overall development of the country.
- Promote public private partnerships whose benefits outweigh their cost, and whose costs and benefits are mutually and fairly shared by the partners.
- Encourage civil society to participate in the building of a productive, vibrant and transparent oil and gas sector.
- Promote employment of Ugandans in the oil and gas sector.
- Promote transfer of skills and technology to the country.

In order to achieve these strategies, the policy specifies several actions:

- Put in place the necessary regulatory framework for state participation and implementation of national content.
- Put in place an institution to undertake state participation in oil and gas activities.
- Identify the opportunities for national content in oil and gas activities and plan for its implementation.

### *Objective 8: To support the development and maintenance of national expertise*

Strategies:

- Identify the training skills required for the sector and plan for their development through both formal and industrial training.
- Utilize oil and gas activities in the country to support provision of the necessary training.
- Promote provision of goods and services to the sector by national enterprises and entrepreneurs as a way of building national expertise.
- Provide appropriate training to Government personnel in the relevant fields as one of the ways to facilitate professional dialogue with oil companies

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<sup>115</sup> Maps and Publications of the PEPD, <http://www.petroleum.go.ug/publications.php>

- Broaden the national education curricula to prepare the necessary workforce for the growing oil and gas sector in the country
- Promote the development of skills during the implementation of oil and gas activities

In order to achieve these strategies, the policy specifies several actions:

- Train Government personnel in monitoring oil and gas exploration, development and production.
- Review and expand the education curricula in the country with a view of producing the workforce required for oil and gas activities nationally.
- Support the development of skills and competitive competencies necessary for the country's entrepreneurs to participate in the delivery of goods and services for the oil and gas sector.
- Require licensed oil companies and their subcontractors to provide training to Ugandans.



## ANNEX 4. ANALYSIS OF ENTERPRISE DEVELOPMENT CENTERS IN SELECT COUNTRIES

### 1. Angola

#### Context

1. **In order to alleviate some of the constraints faced by the local enterprises in Angola, in 2003 an international NGO- CDC Development Solutions- started working with operators and the authorities** to develop solutions to improve the capacity and competitiveness of local suppliers so that they could become suppliers and contractors of the oil industry. A gap analysis of existing SMEs was carried out, and a number of measures were identified to enable local business development. A comprehensive implementation strategy was developed by CDC, initially with the support of British Petroleum (BP) and the Ministry of Petroleum.

#### Enterprise Development Center

2. A couple of years later, in line with the recommendations, the Centro de Apoio Empresarial (CAE) was established with the support and funding of the national oil company, Sonangol, BP, Exxon Mobil, Total, and Chevron. CAE's support ranged from assisting local SMEs with financial analysis, the preparation of bids, and training on specific elements associated with the provision of goods and services to the oil industry. CAE beneficiaries were restricted to wholly owned or majority owned Angolan companies. A company directory was created including certified local companies and an assessment of their services and capacity. In 2010, CAE extended its range of services to include the provision of assistance to qualified SMEs in accessing financing to help address barriers to local SMEs development and growth (the A2F Program). The program was successful in raising awareness of financial services, and helped SME to create innovative investment and lending models. CAE's inception strategy included a plan to transfer, employ, train, mentor, and empower Angolan staff, with the ultimate goal of transitioning the program entirely to Angolan leadership. Angolan staff held all but two key leadership roles.

3. Since its inception the CAE had the following achievements:

- 4,809 job generated;
- Over 100 companies certified in various sectors;
- 224 business trainings delivered to more than 3386 participants representing over 2151 Angolan companies;
- Database established with more than 1490 national SMEs
- Participant SMEs won 348 contracts worth over US\$ 241 million.

4. Lessons learned from CAE's experience include the following:

- CAE provided a way to catalyze oil companies' local procurement efforts into a common platform, providing uniformity of approach and the scale necessary to make the initiative relevant. The approval of the Angolan authorities, and Sonangol's support was critical to

the success of the program, ensuring the necessary level of coordination among private companies' initiatives and government actions.

- CAE facilitated the exchange of information and ideas between buyers and suppliers on ways to streamline supply chains.
- The A2F program was a crucial element of CAE's success, enabling local SMEs to access financing opportunities to support investment in capacity and processes necessary to participate in larger oil and gas contracts and become competitive going forward.
- The early involvement of all stakeholders was important to the design of the correct design of the program, as well as to manage expectations.
- Although inefficiencies may still cause local suppliers to be less competitive than international ones, costs are expected to fall with rising transaction volumes and efficiency gains.

### **Other Local Content Development Initiatives**

5. Besides the implementation of the enterprise development center, there were some additional initiatives in Angola to support local content development.

- Angolan Enterprise Program. The US\$4 million program, financed by Chevron and the Spanish International Cooperation Agency, funded the Luanda business incubator that provided premises and training on seminars in finance, management knowledge, human resource skills, and technology networking.
- Zimbo Fund. Total launched the Zimbo program in 2006 with Angolan bank Banco Totta and several NGOs to support the creation and growth of small and medium-sized companies. As part of the program, they set up a guarantee fund to facilitate access to loans for small businesses. The program minimized the credit risk for Banco Totta, making it easier for it to grant affordable loans to small and medium-sized businesses. Zimbo has led to the creation of 300 jobs and a dozen local businesses, including a textile workshop, an Internet café and a farm cooperative.

## **2. Chad**

6. **The situation in Chad at the time of the introduction of the enterprise center was somewhat similar to Uganda:** highly informal economy with few existing companies meeting contractual requirements set by the IOCs; domination of MSMEs as compared to large enterprises, and lack of the basic technical, public, and financial infrastructure necessary to fully reap the benefits of the development of oil fields in the region. Corruption perception index in both Uganda and Chad is rather low, meaning that corruption is widespread<sup>116</sup>. Nevertheless, there were also some differences. Chad's population is much smaller (approximately 10 million people in 2006).

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<sup>116</sup> Corruption perception index is set by Transparency International. In 2013 report, Uganda ranked 140 on the corruption perception index, compared to Chad at 163 (out of 175 countries). In 2006, which is more relevant for Chad project, Chad ranked 156 (out of 163 countries).

7. **IFC's program in Chad was designed to go hand in hand with the lending operation.** After the Board approved a US\$100 million IFC direct investment in the Chad-Cameroon Pipeline Project in 2001, IFC developed the accompanying Chad SME Linkages Program.

8. **IFC's linkages team partnered with the oil consortium, sub-contractors, international NGOs and Chad's Chamber of Commerce to support local SMEs and build linkages between the oil industry consortium and local suppliers.** The Enterprise Center in Chad, which became operational since December 2004, was established by IFC in association with the local Chamber of Commerce. It has since been positioned as the major vehicle for delivering IFC's local MSME development efforts in Chad. The Center had facilities located in N'Djamena, with satellite centers in Doba, Moundou and Sahr in the South. This Enterprise Center was a one-stop shop for a spectrum of services, such as local supplier identification and evaluation, training, consultations on contract management and delivery, information dissemination, and access to finance. In addition, efforts were begun to increase communication between ExxonMobil and the local suppliers regarding the company's procurement procedures to make contracts more accessible. Counselors were hired and trained locally.

9. **All services to SMEs were available at relatively low-cost to local companies** (US\$5 - US\$80) because (i) the local private sector had limited financial resources; and (ii) Chad does not have a market tradition to pay for business development services.

10. Overall, the program in Chad include the following components:

- i. **SME mapping.** A comprehensive survey of local SMEs was conducted to locate SMEs and maximize the outreach for the company's tender announcements. For example, in Chad, ExxonMobil had a list of only 117 SMEs, while the Enterprise Center jointly run by IFC and the Chamber of Commerce of Chad developed a list of more than 1,300 SMEs. Developing a comprehensive database of suppliers went a long way toward making the local supplier development program more effective through greater outreach. In Chad, this task was conducted by the Enterprise Center staff through on-the-ground surveys.
- ii. **SME rating system.** All the SMEs were evaluated according to their level of competency and given a rating. Tender announcements publicly specified the prerequisite rating required for bid applicants, eliminating the potential for special interest favors.

Local SMEs were rated according to four star categories and they were able to perform certain levels of services based on their rating:

- **Zero star contractors.** These are suppliers which do not have the adequate level to work on the company's contracts. They lack a structure and border on being in the informal sector.
- **One star contractors.** These are base suppliers which have the attributes to perform Level I services. They are established SMEs with proper administration and paperwork, but they lack basic form of management tools and practices.

- **Two star contractors.** These are aspiring world class suppliers and they have the attributes to perform Level II services. These SMEs are fairly well run, specialize in specific sectors, and are managed using modern practices. At the same time, there is room for growth.
  - **Three star contractors.** These are world-class suppliers. They have the attributes to perform Level III services. These contractors would be expected to perform a lot of high-technology services at the same level of quality with international contractors.
- iii. **Public workshops.** Open to all, public workshops corrected information asymmetries in the market by providing SMEs with access to information regarding the pipeline of bidding opportunities over a medium to long term (six months to two years), as well as standards demanded by ExxonMobil from its suppliers. As a result of the workshops, applications per bid in Chad increased five-fold, from 5 to 25 SMEs.
- iv. **eProcurement system.** A transparent system for local contracting was designed, using the eProcurement system developed by Ariba software for ExxonMobil. The program was implemented by the IFC in association with ExxonMobil and the Chamber of Commerce of Chad. Introduction of an eProcurement system ensured that the actual procurement process is transparent, as well as free of corruption and error.
- v. **Access to infrastructure.** The SMEs were provided access to computers and the Internet.
- vi. **SME capacity building:**
- Business development training. Training modules include: launching a business, determining legal structure, accessing financing, effective marketing, and e-commerce
  - Electronic bidding training. SMEs were offered continuous training and capacity-building to use the lead company's eProcurement system, submit required documentation and tender bids, and deliver contracts effectively. One-on-one coaching was available.
  - Personalized business consultation. One-on-one meetings with Enterprise Center officers were available to assist small business owners in the process of addressing issues in their business. The consultations occurred in one of two forms of either short-terms consultations (2 hours in a series of three sessions), or intensive consultations (3 half-days/month over 3 month periods).
- vii. **Access to finance.** Strategies and programs were developed in association with financial institutions to help SMEs get access to resources and demonstrate their ability to execute a contract
11. **Despite the challenging context of the country in terms of security and tumultuous relations with the World Bank, the Chad Enterprise Center managed to achieve significant results.** Indeed, several months in 2006, 2007 and 2008 marked very difficult periods for Chad: suspension of the World Bank's programs, fighting between government and rebel forces, threats

by the Government of Chad to shut down oil operations as a result of tax disputes, staff evacuations. Despite these obstacles, the EC program did not suffer any major disruptions.

12. **The program yielded a number of important achievements.** As of June 2009, 102 local firms were assisted in electronic bidding. 30 contracts worth over \$56 million were awarded. In 2012, the project's support of Chad and Cameroon's economies through purchases of goods and services from local suppliers totaled 88 billion FCFA (US\$175 million)<sup>117</sup>. Since the project began, its purchases of goods and services from local suppliers in Chad and Cameroon totaled over US\$3 billion (with Chad accounting for about two thirds).

13. **In 2010 management of the Chad Enterprise Center was transferred to the Chamber of Commerce.** The center became an integral unit of the Chamber of Commerce, with dedicated personnel trained in key enterprise training and support services such as electronic procurement for oil companies, management training, business planning, and access to finance facilitation.

### **3. Ghana**

14. **Ghana's Enterprise Development Centre (EDC), inaugurated in Takoradi in May 2013,** is the Government of Ghana's initiative spearheaded by the Ministry of Energy and Petroleum (MoEP) and Ministry of Trade and Industry (MoTI) in collaboration with the Jubilee Partners (Tullow, Kosmos, Anadarko, Sabre Oil and Gas, and Ghana National Petroleum Corporation (GNPC). The Jubilee partners are funding the project over the next five years at a cost of US\$ 5 million.

15. **The EDC is commissioned to provide support to Ghanaian SMEs to competitively position them and take advantage of the numerous business opportunities in the oil and gas sector.** The goal of the center is to ensure that Ghanaian SMEs get a fair share of the investment in the oil and gas industry. The EDC is consistent with Ghana's wider strategy of strengthening the private sector and particularly local SMEs to grow on sustainable basis and to drive the viable development of the oil and gas industry.

16. **Enablis Entrepreneurial Network Ghana (Enablis) was appointed by the Jubilee Partners and MoEP to establish the EDC.** Enablis is the largest entrepreneurial network in Africa, and is present in such African countries as South Africa, Tanzania, Kenya, Rwanda, and Ghana. It was founded by the Canadian telecommunications entrepreneur Charles Sirois and global consulting firm Accenture. Enablis' goal is to reduce poverty through exponential job creation, and a unique entrepreneur development model includes identification of promising entrepreneurs at the SME level; nurturing of their professional and personal development and providing them with networking, coaching, mentoring, skills acquisition and financing. By 2012, Enablis reached more than 2,400 accredited members in many industries. Enablis Ghana was established in Accra in 2009. Given Enablis' mission, it appears to be an appropriate organization to establish the EDC in Ghana.

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<sup>117</sup> Chad/Cameroon Development Project. Project Update #33. 2012.

17. **The main functions of the EDC include:**

- Identification of opportunities and facilitating the development of local SMEs for their participation in the oil and gas sector.
- Identification, review, and communication of required standards for effective participation in the oil and gas industry.
- Promotion of collaboration amongst the local SMEs.
- Offering of training and development, business incubation, and consultancy services to SMEs to be competitive. The training modules will include general business skills development as well as skills development in oil and gas-specific areas like contracting processes, terms and conditions, and the fundamentals of offshore environment, health and safety policy
- Arranging third party support where necessary.

18. **The EDC is an essential part of the local content development in Ghana.** As mentioned earlier in this report, regulations in Ghana set rather ambitious targets in terms of what minimum percentage of local content needs to be achieved in different categories of goods and services over the 10-year timeframe, taking into consideration the level of complexity of these services. While at the start, only 10% of local content in goods and services (in aggregate) needs to be achieved, after 10 years, local content for goods and services is planned at 60-90% which is rather high. If local capacity is not developed properly over the years, these targets will create perverse incentives (e.g., creation of shell companies, increase in costs of operation for IOCs, lower level of quality). It is critical to build up local capacity to ensure that the targets can be achieved. Laws and the targets alone cannot guarantee the achievement of local content aspirations unless carefully planned mechanisms are in place to help achieve them.

19. **The expectation is that the center's activities would not solely be focused on the oil and gas sector but would also provide capacity-building opportunities for other sectors such as mining, aviation, petrochemical and the wider economy with the attendant linkage effects.** Due to this flexibility, as needs develop in certain sectors, certain capacity-building activities can be easily added to the center's agenda.

20. **Ghana is also working on the establishment of an *Oil and Gas Business Development and Local Content Fund* to support local capability development aspects of the local content framework.** The fund will be used primarily for education, training and research and development in oil and gas. Sources of the fund will include contribution from Licensed Operators (at amounts specified in the applicable Petroleum Agreements), Oil and Gas Revenue, levies, grants and other support from Ghana's Development Partners.

#### **4. Azerbaijan**

21. **The Enterprise Centre in Baku was established as the focal point for BP's and its partners' efforts to maximize local content of their business in Azerbaijan and increase both the number of companies participating in their contracts and the value of contracts awarded locally.** The Enterprise Centre was launched in May 2002 and subsequently refurbished and

upgraded in 2006<sup>118</sup>. The Center worked closely with the country's leading companies, foreign investors and contractors, trade associations and other groups to support local enterprises and encourage their participation in BP contracts. The Enterprise Centre coordinated its training programs with a range of development organizations like GIZ and certification bodies like Moody International.

22. **Local SMEs received training at no cost in health, safety and environmental (HSE) policies; tender process participation; technical requirements of oil and gas operators; and the identification of foreign partners for local projects.** In addition, a series of seminars, under the broad heading, "How to do Business with Oil Companies," which cover topics ranging from the IOC bidding process to steps to ISO certification has been offered local SMEs. This targeted communication with SMEs was critical to developing local firms who understand how to develop business with international operators. The Enterprise Centre aimed to provide targeted assistance to individual firms and supports local SMEs by identifying publicly available, yet not widely known, sources of credit, training and certification. In addition, it maintained a supplier database tracking firms' activities.

23. **In 2003, the IFC partnered with BP, Statoil, GIZ, and the Baku Enterprise Center to launch an enterprise development and training program to help local businesses benefit from investments in the oil industry, including the Baku-Tbilisi-Ceyhan pipeline.** This support was directed at expanding the local supply and distribution chains to create more opportunities for smaller businesses and to assist in sustainable community development efforts. The program was linked to IFC's proposed investments in the Azeri, Chirag, and Deepwater Gunashli oilfield and the Baku-Tbilisi-Ceyhan pipeline projects. The objective of the program was to better equip Azeri businesses to participate in business opportunities related to, but not exclusively, the on-going oilfield developments. The program focused on helping companies overcome obstacles preventing them from winning contracts related to the projects.

24. **The program centered around three principal areas:** (i) Technical assistance to targeted Azeri service and supply companies; (ii) The development of local consultancy capacity in the provision of business services; and (iii) The development of new financial products aimed at improving access to capital for SMEs in Azerbaijan.

25. **Companies taking part in the program came from subsectors that the project team had identified as providing long-term opportunities when the oilfield projects come on stream.** Each company underwent a "diagnostic" review to establish what sort of technical assistance was needed. The assistance was then tailored to their needs and provided over a period of one year, addressing issues such as business planning, assistance with access to capital, management training, and the attainment of standards required by the international business community based in Baku. Also included in the linkage program was the generation of an "SME map", which described the business environment in which local companies operated, including access to enterprise support services and finance. All of the partners in the program — BP, Statoil, GTZ, and the Baku Enterprise Center—provided funds in kind and in cash. GIZ was responsible for delivery of the program providing expertise to work with local companies. The Baku Enterprise

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<sup>118</sup> East Azeri Ahead of Schedule. Azerbaijan International. 2006

Center provided data on the industry as well as individual expertise. A full-time SME coordinator managed the program on behalf of the partners.

26. **The program achieved a number of results.** As the result of the efforts of the program, 1000 companies registered with supplier database since 2007 and participated in development activities; 93 companies undertook the development process and successfully graduated from the program; 360 gap analysis and tailored development plans were produced.

27. **In order to provide further support to the suppliers of the oil and gas sector, a supplier finance credit facility (SFF) of US\$15 million was funded by IFC, BP and Micro Finance Bank of Azerbaijan (MFBA) to provide financing to SME contractors to BP and its affiliates in Azerbaijan.** The project aimed to help increase local content by expanding the participation of local Azeri enterprises in the supply chain. Insufficient collateral was identified as one of the main factors that limited access to finance for SMEs and slows their development in Azerbaijan. In order to overcome this challenge, the SFF was designed.

28. **Loans to local suppliers were backed in part by the local companies' contracts with BP and its co-venturers** (mainly shareholders in a number of oil and gas projects in Azerbaijan). IFC and BP each took 40% of the facility's risk, while MFBA took 20%. IFC's role in the project was to design and structure the facility; initiate and facilitate the partnership between BP, IFC and MFBA; play an active role in the early implementation phase as well as in the supervision and monitoring of the facility thereafter; and support the growth and development of small and medium businesses in Azerbaijan. The SFF drew on lessons learned from a 2006 pilot phase that was funded through grants from the partners.

29. **MFBA was selected for this role as it was already working with over 18,000 businesses in Azerbaijan and was the leading financing partner of SMEs in the country.** MFBA was founded in 2002 by IFC, EBRD, Black Sea Trade and Development Bank (BSTDB), KfW and LFS Financial Services (LFS) as the first formal provider of financial services to SMEs in Azerbaijan. The Bank's goal is to provide a comprehensive set of financial services to micro and small business with limited access to finance, using international best practice.

30. **Following the successful completion of the Enterprise Center (2002-2008), the Enterprise E-Centre was launched in 2009 by BP on behalf of its co-venturers to guide local enterprises through development process in support of major oil and gas developments in Azerbaijan.** It marked another progressive milestone in offering innovative solutions in Azerbaijani oil and gas sector.

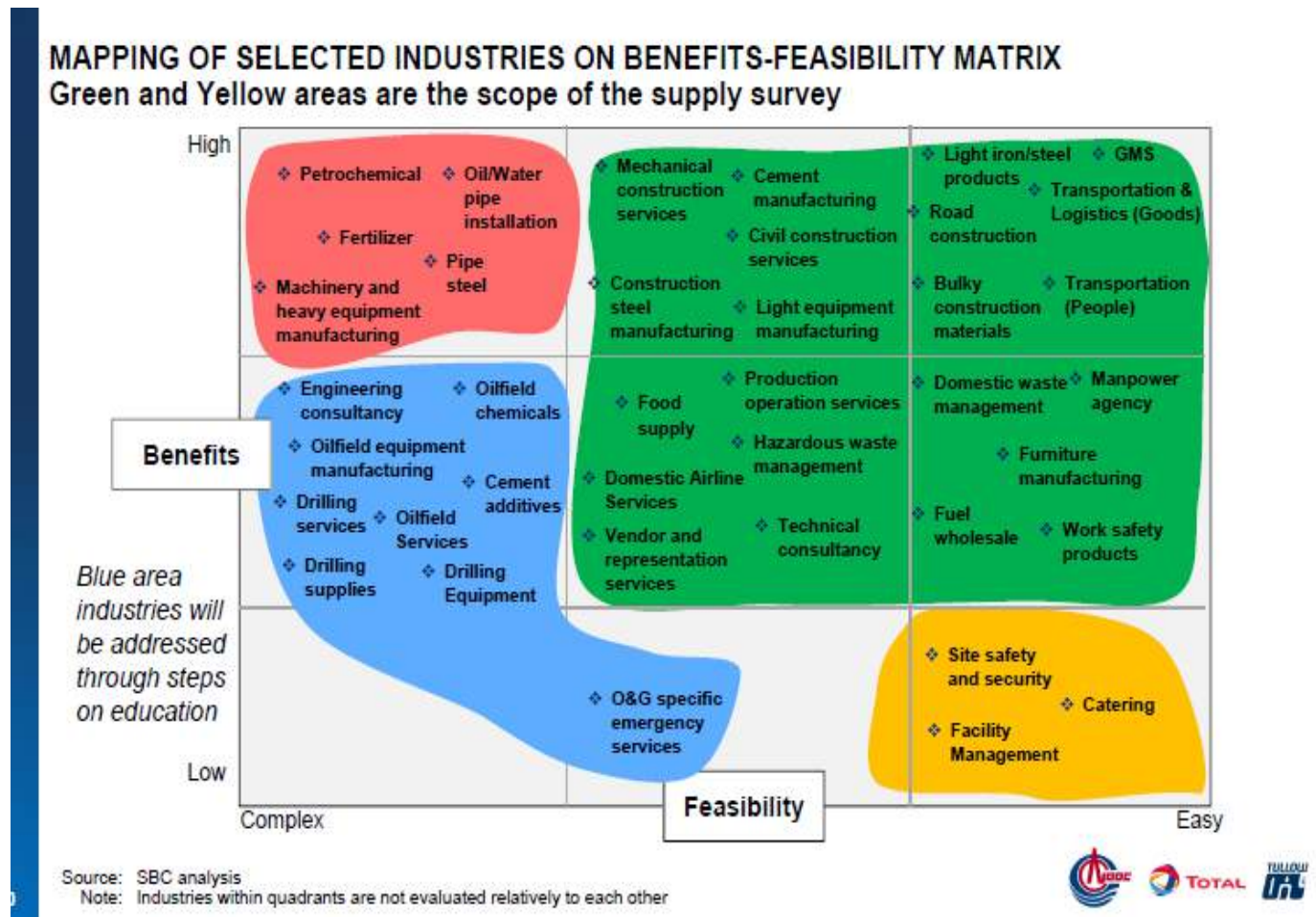


## ANNEX 5. IOC BASELINE SURVEY

1. **IOCs have taken important steps in supporting national content.** They contracted Schlumberger to conduct an industry survey to map the Ugandan market and find out what companies and competencies are available. The baseline survey identified a number of sectors with high potential for national content. The study started with an initial list of industries (~420), then narrowed them down to target list of ~40 industries (O&G direct and indirect industries based on a detailed value chain of O&G activities and industries widely recommended for national content) and finally, to 25 industries with high potential for national content.

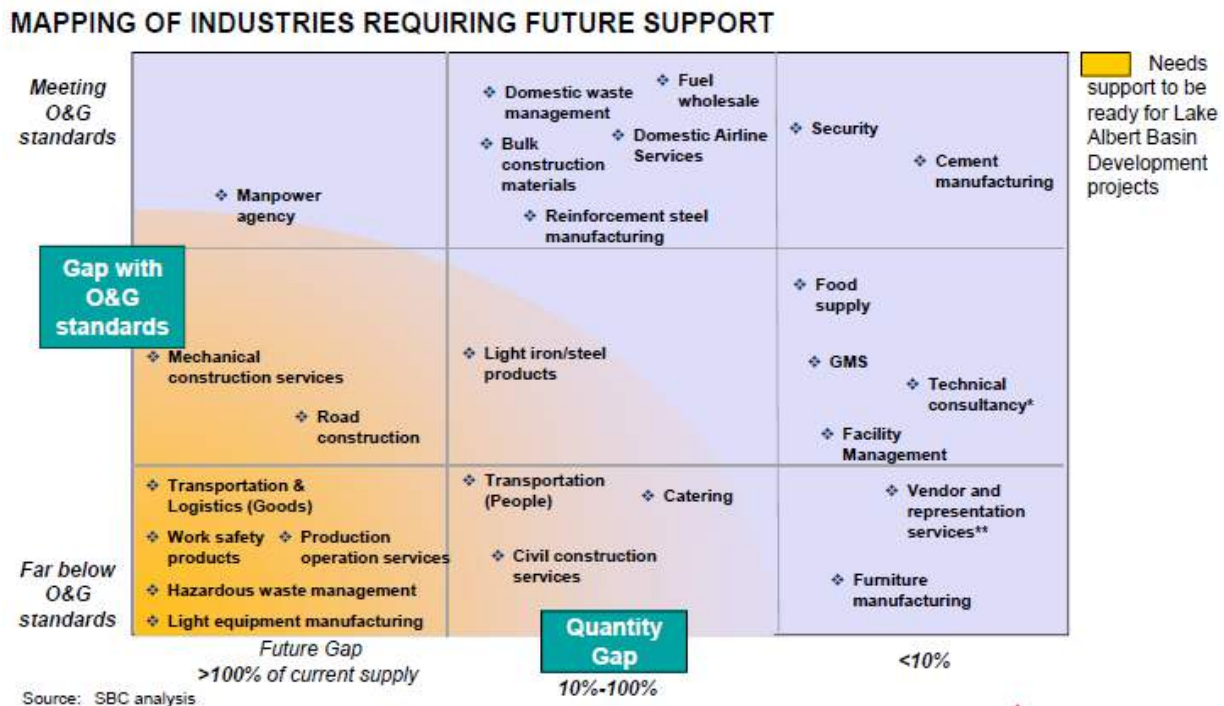
2. **Industries related to O&G projects in Uganda have been classified in terms of potential for national content development.** As demonstrated in **Figure 1**, the industries were judged on two dimensions: benefits and feasibility. The 25 industries with relatively high benefits and feasibility (green and yellow quadrants) were selected for the supply survey. These include transportation and logistics, food supply, domestic waste management, facility management, manpower agency, cement manufacturing and others.

**Figure 1: Mapping of Selected Industries on Benefits-Feasibility Matrix**



3. The enterprises in the 25 industries identified above in Uganda were later studied in detail in terms of their ability to meet quality requirements (strict O&G standards) and quantity requirements. Questionnaires were sent to 700 companies and their responses used to estimate the available supply in particular industries in Uganda. At the same time, demand by the three IOCs was also calculated, and gap assessed for each of the 25 sectors. Figure 2 shows that there are only 2 sectors (security and cement manufacturing) among the 25 sectors which are meeting O&G standards and have a quantity gap of less than 10%. The remaining 23 sectors face either quantity, or quality gap, or, in most cases, both.

Figure 2. Mapping of Industries Requiring Future Support

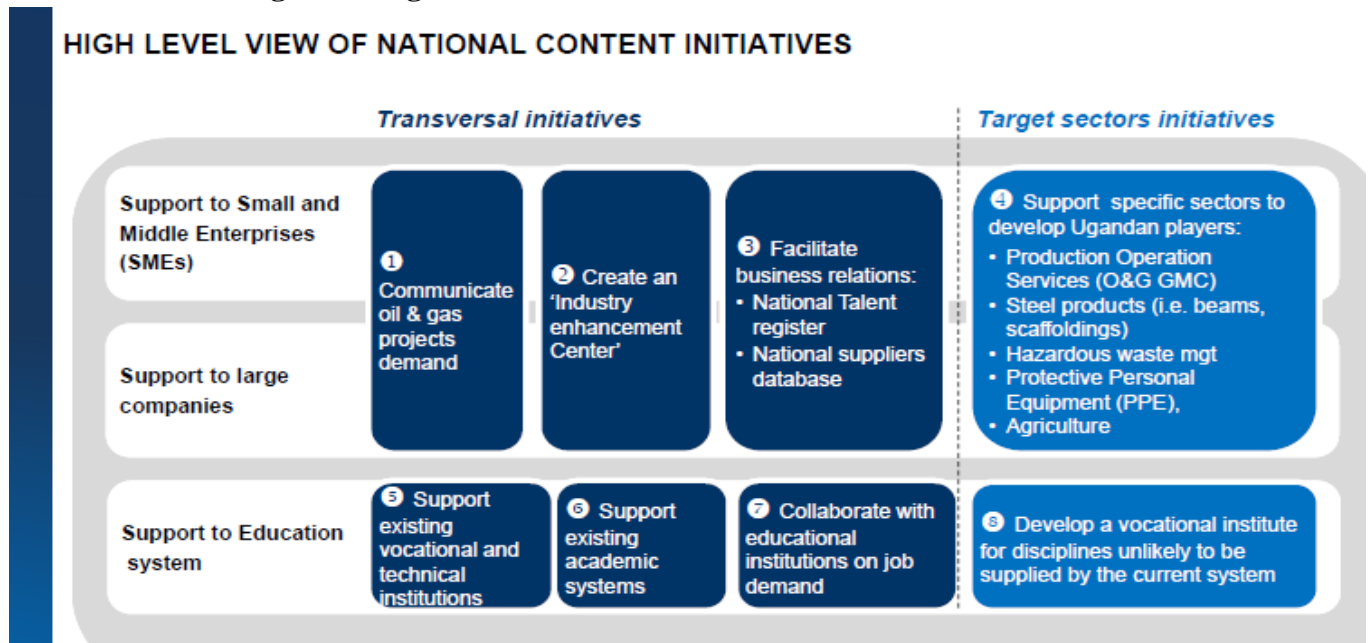


4. Main support actions requested by suppliers in the Baseline survey included:

- (1) Visibility over demand
- (2) Access to finance
- (3) Improvement of infrastructure
- (4) Administration (process of obtaining required approvals)
- (5) Training of skilled people
- (6) Reinforcement of O&G certification process
- (7) Increase capacity of suppliers.

5. Based on the analysis performed, the Baseline Survey proposes way forward to support the O&G development in Uganda (Figure 3). The suggested initiatives for support to enterprises are both horizontal, which would benefit all the local suppliers of the O&G industry in Uganda (communication of demand by IOCs, creation of an Industry Enhancement Center, and facilitation of business relations, such as creation of the National Talent Register and National Suppliers Database) and vertical (support to target sectors).

Figure 3. High Level View of National Content Initiatives



6. **The Industry Enhancement Center is expected to assist and coach enterprises with a number of issues:** securing funding from investors, HSEQ and compliance standards, accounting rules, answering to tenders, contractual clauses in large contracts, technical standards and other issues. Potential actors in the establishment of the center include IOCs, inspection and certification companies, financial sector players, accounting and law firms, professional associations, investors, and international donors.

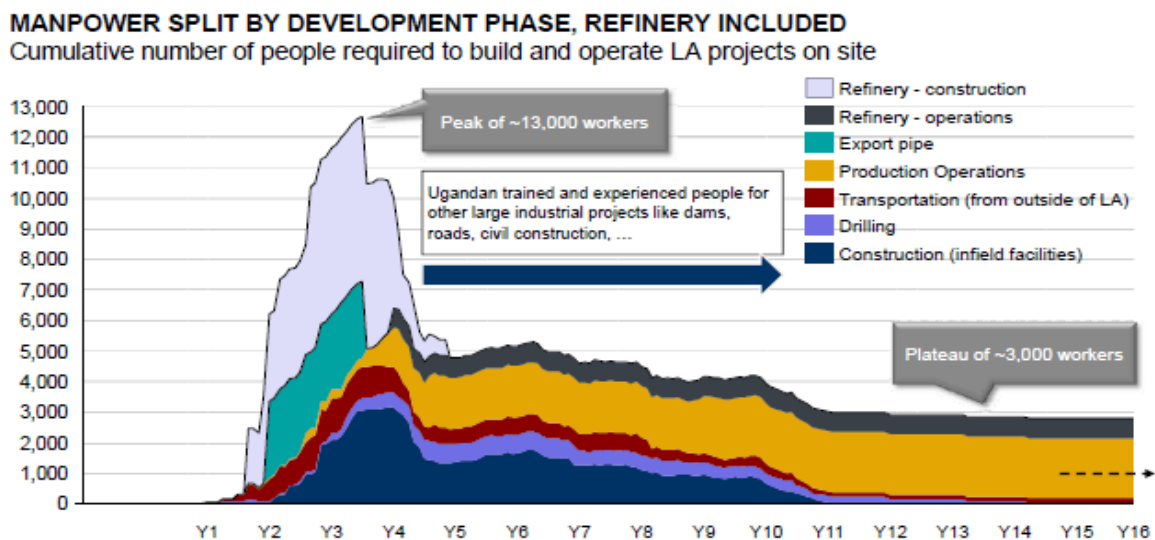
7. **In terms of facilitation of business relations, supplier database is proposed to be developed** to track availability of qualified suppliers and business connections will be facilitated between Ugandan companies.

8. **The Baseline Survey identifies the following sectors with national content potential:**

- **Hazardous waste management.** Local enterprises do not meet O&G standards in this industry due to inadequate training, long certification process, and lack of transportation/treatment infrastructure. This could be a promising sector for development as hazardous waste is disposed of not only by IOCs but also hospitals, automobile repair shops, dry cleaners etc., which opens a rather wide market. Moreover, services could be provided in neighboring countries. By extending their capacity beyond local transportation and waste disposal, Uganda can leverage their first mover advantage and become a regional leader in the sector, retaining key know-how and treatment capacity.
- **Operations and maintenance services.** There are currently no such services in Uganda, while demand will reach 1000+ people at the peak of construction. Short training time to start work makes this industry highly promising for local content development, as later these skills could be used in many other industries.

- **Metal scaffolding.** Traditional bamboo/wooden scaffolding used in Uganda scaffolding is not compliant with O&G standards. Development of metal scaffolding industry in Uganda could be very beneficial as it could be used for sectors other than O&G industry (such as construction).
- **Protective personal equipment (PPE).** Work safety products produced in Uganda are not up to standards and most PPE are imported. PPE meeting O&G standards could find a lot of applications in Uganda and could potentially be exported to neighboring countries.
- **Road safety.** The number of accidents is increasing every year, and oil production will only intensify traffic between Mombasa-Kampala-Hoima.
- **Agriculture.** Agriculture is the first employer in Uganda. There are significant opportunities for supplying food to oil camps if strict O&G standards are met. The peak of workers on site will reach 13,000 (**Figure 4**).

**Table 1. High Level View of National Content Initiatives**



- **Light equipment manufacturing.** Currently, Uganda is almost a 100 percent net importer for all kinds of light equipment: high-voltage cables from China and India, generators from Europe, transformers from Tanzania, and electrical motors from China. Only power cables are produced locally. Development of this sector in Uganda could therefore be highly promising for import substitution.

9. **IOCs have already commenced work on a number of initiatives recommended by the IBS.** Table 1 below has been provided to the World Bank team by the IOCs and shows the status of initiatives. As evidenced by this table, several initiatives proposed by the IOCs have been approved by PEPD and therefore will be implemented. Working group meetings on these initiatives have commenced.

**Figure 5. JVP National Content Initiatives**

NC INITIATIVES	PURPOSE
1. Industry Enhancement Centre	To support capacity development of Ugandan companies to enable them position to effectively respond to business opportunities on the oil and gas project.
<b>Facilitation of Business Relations</b>	
a. Talent Register	To create a record of Ugandan personnel for the Project and for subsequent projects post oil and gas development
b. Supplier Database	To create a prequalification framework for Uganda suppliers of goods and services to the oil and gas project
2. Definition of technical Standards (excluding logistics)	To document and publish all standards required of goods and services to the project.
<b>Support to specific Sub-Sectors</b>	
a. Steel products	To support the development of specific Ugandan sub-sectors judged to be critical for the project. These sub-sectors are currently weak and yet they can easily be developed to the required standards
b. Hazardous Waste Mgmt	
c. PPE	
d. Agriculture	
3. <b>Education Support:</b> Gap analysis of support to vocational training structure	The identify and develop urgently required skills to enable effective Ugandan participation in the oil and gas project
4. Definition of technical qualification standards	To document and publish all qualifications standards required of personnel for the project.

## **ANNEX 6. ROUNDTABLE DINNERS ON NATIONAL CONTENT – CROSS-COUNTRY LESSONS**

### **RATIONALE**

As Uganda emerges as an important oil player on the global stage, the growth opportunities for Uganda enterprises and the local labor force increase dramatically. The benefits for the local private sector are expected through increased employment, value addition and technology transfer.

To maximize the benefits of natural resource extraction to their economies (above and beyond the direct value added of the extractive sector), many resource rich nations have designed National Content Policies (NCPs) that foster linkages to other sectors and promote domestic enterprise development. Policies and regulations have differed widely among countries, and while some of these policies have stimulated sustainable and broad-based economic development, their impacts in oil and gas rich countries have been mixed.

In Uganda, a lot of analysis has been conducted on national content development and some important initiatives are under way. Most importantly, the Government of Uganda is in the final stages of concluding the “National Content Policy for the Petroleum Sector in Uganda.” This policy will clarify the national intent, roles and responsibilities, and provide guidance to subsequent legislative, regulatory and strategic actions both for the Government of Uganda as well as for the private sector. The development of the National Content Policy is supported by the Norwegian Oil for Development programme, “Strengthening the Management of the Oil and Gas Sector in Uganda”, 2009 – 2014. This is a government funded programme that aims to support the development of Uganda’s emerging oil and gas sector. Through the programme, the study “Enhancing National Participation in the Oil and Gas Industry in Uganda”, has also been supported. Another relevant study is the “Constraints and Opportunities for SME Investment in Uganda’s Oil and Gas Sector” The study was undertaken by the Uganda Investment Authority (UIA) and Makerere University, and was funded by Trust Africa and International Development Research Center. Furthermore, the Association of Oil and Gas Service Providers has been formed with the idea of supporting Ugandans’ participation within the oil industry. International Oil Companies (IOCs) have also taken steps in supporting national content in Uganda by undertaking the Industrial Baseline Survey, providing support for education and employment of Ugandans, as well as enterprise development.

Nevertheless, a number of policy questions still remain on the government’s agenda as the National Content Policy is being developed.

### **OBJECTIVE**

The Ministry of Energy and Mineral Development, the Royal Norwegian Embassy and the World Bank would like to contribute to the National Content Policy dialogue by organizing a cycle of roundtable dinners in Kampala for a selected group of key local content stakeholders. Invitees will include representatives from the Government, the private sector (including international oil companies), academia, the civil society and donors active in the local content agenda.

The objectives of these roundtable dinners will be:

- ***Sharing Knowledge***: Expert practitioners from other oil and gas producing nations will share their deep knowledge of the design and implementation of national content policies.
- ***Achieving a Common Language***: The seminars will promote a common understanding of terms, options, opportunities, pitfalls, and best practices.
- ***Informing the Design and Implementation of national content policies***: From knowledge and common language gained, these seminars are expected to be an input into the local content policy making and implementation process.

## FORMAT

The roundtable dinners will be chaired by the Ministry of Energy and Mineral Development and will benefit from the technical support and practical knowledge of an expert coming from the country featured at a particular session. Each roundtable dinner will address the following five questions around one specific country. The final roundtable dinner will act as a capstone that aims to summarize and integrate the discussions and lessons from the previous sessions.

- What were the objectives of national content policies in these countries?
- What was the content of national content policies?
- How did these countries formulate their national content policies?
- What tools were used to implement the national content policies?
- What was the outcome of these national content policies?

The agenda of the roundtable dinners will be the following:

- 5.30pm: Arrival of invited guests
- 6.00pm: Welcome by the Norwegian Ambassador, Mr Thorbjørn Gaustadsæther
- 6.15pm: Introduction by Hon. Peter Lokeris, Minister of State for Mineral Development (Chair)
- 6.30pm: Presentations
- 7.30pm: Dinner and discussion
- 9.30pm: End and closure of the roundtable dinner by Country Manager, World Bank, Mr Ahmadou Moustapha Ndiaye

## **CASE STUDIES (EXPECTED)**

The first roundtable dinner will feature the experience of Ghana.

The participants will then have the opportunity to express their preferences for the following countries in order to feature the ones that raise the greatest interest among local content stakeholders.

Some of the countries which could be considered for the following dinners include Nigeria, Angola, Malaysia, Brazil, Oman, Indonesia, Azerbaijan, and Chad.

### **Keynote Speaker for Ghana**

Mr Vincent Yankey is an oil and gas finance specialist, currently, the Director of Finance and Administration at Petroleum Commission, Ghana. He is a seasoned executive with a blend of private and public sector experience as well as local (i.e. Ghana) and international track record in energy investments in Emerging Markets, Corporate Valuations, Financial Management, Risk Analysis, Project Management and Enterprise Resource Planning.

Past positions held include Management Consultant at PricewaterhouseCoopers Ghana, Country Manager of E&Co Ghana, a global energy investment company, headquartered in New Jersey and an Investment professional in a leading private equity fund Manager in Ghana (now Jacana Ghana). He has very deep knowledge in structuring of debt and equity finance for start-up companies, particularly, in the energy sector.

As a key member of the Management team of the Petroleum Commission, which is the main regulatory body of Ghana's upstream oil and gas industry, Mr Yankey plays a pivotal role in promoting local content and local participation in petroleum activities for the overall benefit of the citizens of Ghana.

Mr Yankey holds a Master of Business Administration (MBA) from Manchester Business School (The University of Manchester) and a first degree in Computer Science and Statistics from the University of Ghana. He is a Chartered Accountant and a Fellow of the UK-based Association of Chartered Certified Accountants (FCCA).



## ANNEX 7. SIMPLIFIED STRUCTURES OF SELECT VALUE CHAINS IN THE ALBERTINE REGION<sup>119</sup>

**Figure 1: Food Crops Value Chain**

	Procuring inputs	Production	Processing	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Seed Labour Tractor hire service Extension services Finance	Land preparation Planting Weeding Harvesting Storage	Collection Sorting Drying Milling Packaging Distribution	Wholesaling Retailing	Delivery
<b>MAIN ACTORS</b>	Households NAADS NGOs Financial institutions	Households Traders	Agents Traders Millers	Agents Traders	Households Institutions Hotels & Restaurants

**Figure 2: FFV Value Chain**

	Procuring inputs	Production	Processing	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Seedlings Labour Tractor hire service Extension services Finance	Land preparation Planting Weeding Harvesting Storage	Collection Sorting Cleaning Packaging Distribution	Wholesaling Retailing	Delivery
<b>MAIN ACTORS</b>	Households Traidlinks Financial institutions	Households	Traidlinks Farmer groups HODFA	Traidlinks Urban markets	Oil Camps Households Restaurants and hotels

**Figure 3: Beef Value Chain**

	Procuring inputs	Rearing	Trading	Slaughter	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Procurement of: Suitable bulls AI Vet drugs Vet services	Grazing Watering Geneal care	Collection Selling animals	Slaughtering	Butchering	Buying meat
<b>MAIN ACTORS</b>	Households NAADS Vets Financial Institutions	Households Hired herdsmen	Households Middlemen	Slaughter joints Households	Butcheries Market stall Butcheries	Household consumers Institutional consumers

<sup>119</sup> Source: WB team's elaboration

**Figure 4: Dairy Value Chain**

	Procuring inputs	Production	Transporting & Bulking	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Procuring services viz: Extension services, AI services, other Vet services in general, Vet drugs	Grazing Watering Geneal care Administering AI (Artificial insemination)	Collecting and transporting raw milk from smallholder farmers to Milk Collection Centres (MCCs)	Retailing milk and milk products	Buying milk and milk products
<b>MAIN ACTORS</b>	Households NAADS Vets Financial Institutions	Households Hired herdsman Vets	Bicycle trader Collection/bulking Pont trader	MCCs	Household consumers Institutional consumers

**Figure 5: Poultry Value Chain**

	Procuring inputs	Production	Transporting & Bulking	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Procuring services viz: Extension services, Chicken feed, Other Vet services in general Vet drugs	Feeding the birds Watering the birds	Collecting and transporting live birds from smallholders and village markets to urban markets	Retailing chicken to household and institutional consumers both live and dressed	Buying chicken from retailers
<b>MAIN ACTORS</b>	Households NAADS Vets Financial Institutions	Households Vets	Households Bicycle traders	Grocery shops Urban markets Other retailers	Household consumers Institutional consumers

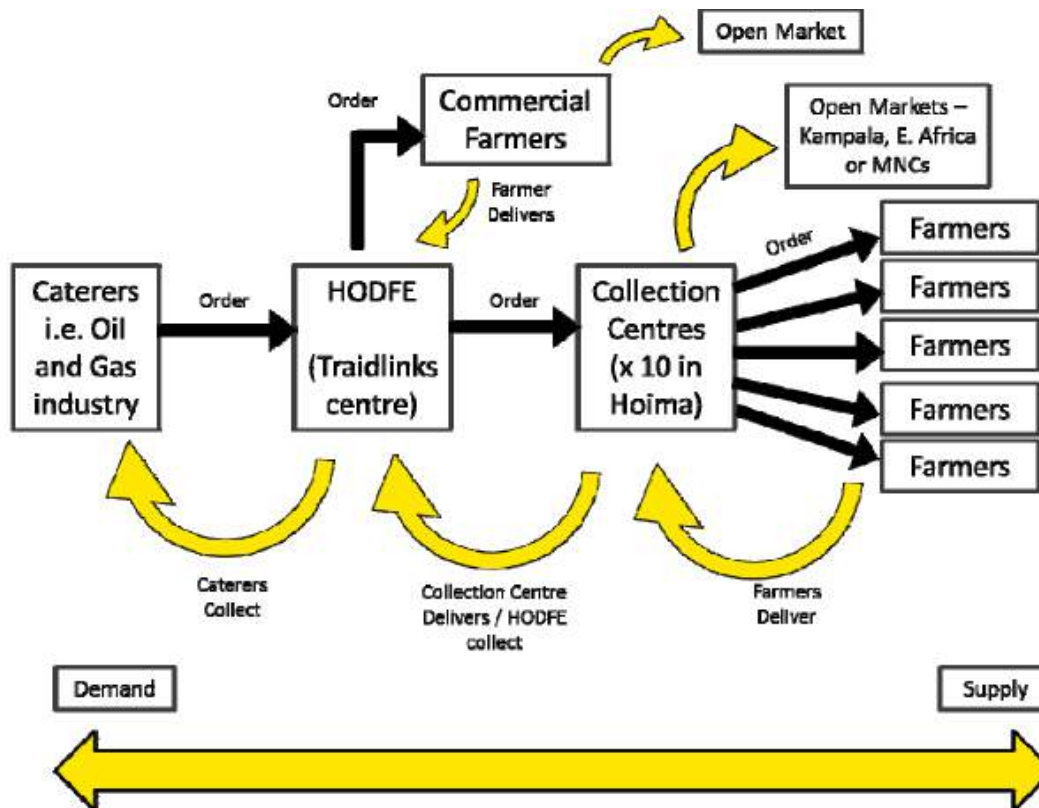
**Figure 6: Fisheries Value Chain**

	Procuring inputs	Fishing	Processing	Transporting	Marketing	Consumption
<b>VALUE ADDING ACTIVITIES</b>	Main inputs include: Fishnets Outboard engine Fishing boat	Preparing fishing gear Fishing Landing the catch	Cleaning, scaling and gutting Drying and hot smoking Packing	Collecting & transporting fish from fishermen and artisan processors at the landing to the village and Urban markets	Retailing fish to household and institutional consumers	Buying fish from retailers
<b>MAIN ACTORS</b>	Fishnet manufactures Dealers in outboard engines, boat builders, Ice makers Fin Institutions	Fisherfolk	Fisherfolk Artisanal processors Local traders	Fish traders (pickup based) Bicycle based fish traders	Fish stalls in urban and rural markets	Household consumers Institutional consumers

## ANNEX 8. APPROACHES TO MAXIMIZE THE PARTICIPATION OF THE ALBERTINE REGION IN SUPPLYING FOOD TO OIL CAMPS

### *(1) TRAILINKS ACTIVITIES*

Figure 1. Traidlinks Approach



1. **The Traidlinks project uses the approach as presented in Figure 1.** First, smallholder farmers are sensitized about the project, HODFA, and Traidlinks, and the services accessible by members and the benefits that come with the scheme. Farmers are then encouraged to form groups of like-minded participants with shared vision and objectives. The groups do not have to follow Government Administrative Structures. After groups are formed, HODFA carries out a needs assessment of the newly formed groups and goes on to design training for the farmers on the basis of the training needs identified.

2. **The training content covers a wide range of topics including the following:**

- Group dynamics;
- Enterprise identification/ selection;
- Entrepreneurship;
- Quality standards;
- Quality management;

- Agronomy/ enterprise management including best practice in planting; use of chemicals; organic fertilizers; application of fertilizers; pest and disease control, and post-harvest handling.

3. The project procures and stores approved seed as well as fertilizers which are sold to participating farmers at affordable rates on credit terms that among other things provide for payment to be recovered from the farmers' dues arising from proceeds of sale of farmers produce which comes from the oil camps through HODFE. HODFA provides extension services and helps to provide participating farmers with information about the market as well as communicating purchase orders to the farmers' groups as and when they are received.

4. On receipt of purchase orders, Traidlinks passes on the order to HODFE which splits the order between participating farmers in depending on the nature of enterprise. Individual farmers in their respective groups then proceed to prepare their produce in accordance with the specifications given, and when ready, prepare and deliver their produce to their respective collection centers, from where HODFE transports the produce to the Traidlinks Enterprise Centre for processing and shipping to the oil camps.

5. **Food items supplied in May 2014 are presented in Table 1 below as an example.** Prices for produce were agreed between HODFE/Traidlinks and Equator Catering (the company which supplied Tullow camps and has recently been replaced by Supreme Catering) during Phase I of the ASC project. For the most part, these prices have remained static.

6. **Overall, according to the Ernst and Young report, the project has faced a lot of challenges.** Moving significant numbers of smallholders from subsistence to commercial farming cannot be done overnight. Farming as a business' is an alien concept to many of them, as are notions of profit, loss and long-term contracts. Most farmers lack the skills and information needed to plan their planting to meet demand, and to increase the productivity of their land. So while there is undoubtedly potential in the region for agricultural production and export on a vast scale, achieving this will take sustained focus, investment and patience over many years<sup>120</sup>.

7. **An important point to emphasize is that the project also supplies other customers beyond Tullow caterers, including hotels and restaurants in Hoima.** As such, there is going to be a market for these products beyond the oil camps. The produce flow for these customers works in the same way, except HODFE will deliver the produce rather than the customer collecting it from the EDC.

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<sup>120</sup> Agricultural Supply Chain Project- Hoima, Uganda. Ernst and Young Report. December 2013

**Table 1: Food items supplied by smallholder farmers to Oil Camps in May 2014**

Food Item	Unit	Conv rate (Kgs)	Week 1	Week 2	Week 3	Week 4	Week 5	Total
Apples	Box	12	24	24	24	-	24	96
Avacado	kg	1	100	80	70	38	70	358
Beans	Kg	1	-	-	-	30	-	30
Beet root	Kg	1	5	4	9	4	2	24
Black Shade	Kg	1	-	-	10	-	-	10
Bogoya	Cluster	2	42	28	28	-	12	110
Broccoli	Kg	1	4	11	15	15	21	65
Cabbages	Heads	2	54	60	10	20	14	158
Carrots	Kg	1	70	90	70	30	50	310
Cassava Flour	Kg	1	-	-	-	20	-	20
Cauli flower	Kg	1	13	18	11	-	14	55
Celery	Kg	1	4	1	1	5	1	11
Coriander	Kg	1	3	4	3	4	4	17
Courgettes	kg	1	16	12	10	18	16	72
Cucumber	Kg	1	8	25	10	10	17	70
Dodo	kg	1	20	35	24	-	25	104
Egg plant	Kg	1	10	18	14	15	-	57
French Beans	Kg	1	10	17	25	3	15	70
Fresh Beans	Kg	1	45	46	50	-	40	181
Fresh Lemon	Kg	1	-	-	-	2	1	3
Fresh mushroom	Kg	1	-	10	-	5	1	16
Fresh Peas	Kg	1	70	55	60	20	50	255
Garden Egg	Kg	1	-	-	10	9	-	19
Garlic	Kg	1	3	6	7	5	8	29
Ginger	Kg	1	2	2	2	-	3	9
Green Chille	Kg	1	-	-	1	1	3	5
Green pepper	kg	1	8	15	10	20	17	70
Irish Potatoes	kg	1	600	400	250	100	500	1,850
Leeks	Bunch	4	8	8	4	8	8	38
Lettuce	Kg	1	13	10	11	13	14	59
Mangoes	Kg	1	30	40	39	-	40	149
Millet Flour	Kg	1	-	-	-	10	-	10
Mint leaves	Kg	1	-	-	-	1	-	1
Nakati	Kg	1	55	50	40	50	35	230
Onions	Kg	1	60	90	75	70	50	345
Oranges	Box	12	24	24	24	12	24	108
Passion fruits	kg	1	70	69	40	-	20	199
Paw paws	Pc	3	125	225	75	75	75	575
Pine apples	Pc	2.0	160	354	200	154	80	948
Pumpkin	Pc	3	34	27	24	27	41	153
Red Apples	Box	7	-	7	-	-	-	7
Red cabbages	pc	1	4	-	-	-	-	4
Red pepper	Kg	1	-	1	-	-	-	1
Solar dried must	25g	0.001	-	-	0	2	0	2
Spinach	kg	1	30	20	20	10	20	100
Spring onions	Bunch	2	12	-	2	4	6	24
Sweet potatoes	kg	1	120	100	80	80	60	440
Tomatoes	kg	1	120	149	60	100	70	499
Watermelon	pc	2	-	-	60	116	60	236
Yams	Kg	1	20	40	50	-	-	110
Yellow banana	Bunch	6	36	48	30	18	18	150
Yellow Pepper	Kg	1	-	1	-	-	-	1
Yellow/Red pep	Kg	1	5	3	9	-	-	17
<b>Total</b>			<b>2,035</b>	<b>2,227</b>	<b>1,566</b>	<b>1,123</b>	<b>1,527</b>	<b>8,477</b>

## **(2) PROSPECTS FOR ESTABLISHING AN AGRO-INDUSTRIAL PARK IN THE ALBERTINE REGION**

10. **Large scale agro processors interviewed as part of this study considered that the idea of an Agro Industrial Park in the Albertine region could be viable.** Nevertheless, based on their negative experience with Kampala Industrial Business Park, popularly known as Namanve Park, they expressed reservations about the successful implementation of the proposed park. Some players wonder whether it will not end up as another failure unless certain actions are taken to guarantee its success.

11. **In order to maximize the chances of success, key agro processors recommend that the park should have a master plan, and should be a fully serviced park and provisions should be made for the following:**

- **Infrastructure** consisting of a good road network reaching all plots in the park; water; drainage; serious electricity; railway system and land. The infrastructure needed should be properly planned and implemented to be ready at the same time.
- **Tax incentives:** Consider giving tax holidays for processors setting up in the park
- **Partitioning the Park:** Partitioning of the park should be done in such a way as to ensure that likeminded industries are in the same division of the park, to avoid the Namanve scenario which was haphazard.

12. **Processors interviewed also noted that buy-in of the industry is crucial to makes this endeavor a success.** They recommended that whoever is responsible for setting up the park should: (a) engage with practicing processors and let them play a key role in the planning of the park by starting a processors forum /working group (b) engage with UMA (Uganda Manufacturers Association) to make an input in the master plan, and any other plans for the development of the park.

13. **Consultations with various stakeholders have yielded three broad views about the perceived viability of the Park.** One view holds that the park is not viable because two years demand boom is too short to enable processors recoup their investment. Proponents of this view recommend that we should focus on a small park targeting 3,000 to 5,000 workers (the surplus of 2,000 being a provision for natural growth), suitable for small scale investors with a combined capacity to meet this demand that is there for a long time. Another view is that the park may not be viable because it tends to concentrate the action in one central location, recommending that we should map out agricultural activities in the region and establish processing facilities relevant to the agricultural activity in particular areas e.g. if Buliisa's main agricultural activity is fish and cattle, develop a beef processing plant in the area, and if Masindi's main activity is grain, then develop a grain plant in the place. The third, and most frequently held, view is that the park as conceived is a brilliant idea and is viable.

14. **A wide range of actions were suggested with a view to maximizing viability of the park if the decision is made to establish it.** Following is a summary of the main actions mentioned:

- **Support to smallholder farmers:**
  - Smallholder farmers supplying food to the processors in the park should be supported with effective extension services in order to maximize the quality and quantity of the food produced;
  - Organize smallholders into farmer groups and equip them with knowledge and skills necessary to enable them embrace modern farming methods so as to increase production and productivity;
  - Assure smallholders of a fair return;
  - Support farmers to mechanize agricultural production in order to enable them expand acreage under cultivation;
  - Provide appropriate capacity building to farmers as well as technical personnel responsible for planning and delivery of agricultural extension services in the community;
  - Ease the access of farmers to favorably priced finance for acquisition of inputs such as tractor hire service, fertilizers, and labor;
  - Assist farmers to access appropriate irrigation technology to enable farmers engage in continuous production of fresh foods , fruits and vegetables all year round;
  - Assist farmers develop and or upgrade storage facilities to maintain necessary quality standards of their produce;
  - Processors should be encouraged to engage smallholders under contract farming arrangements;
  - Train and equip smallholders in the use of irrigation and green house technologies to enable them enhance the range of their products to include certain other fresh vegetables that would do much better under those technologies;
- **Upgrading Road Infrastructure.** Government should provide and or upgrade road infrastructure to the communities in the region in order to guarantee speedy delivery of perishable foods to the park whether or not it is a rainy season;
- **Communication Strategy.** Leaders at all levels in the region should be sensitized to embrace and support all efforts aimed at increasing food production in the region;
- **Land.** Government should provide land for the park as well as extending necessary incentives for private investors. The park should be fully serviced, with streets in the park being fully developed and paved, with water and power accessible by every plot.
- **Agriculture Industries to be included:** A list of industries that stakeholders prefer to see included in the park covers virtually all food produced in the region, but the most frequently cited include: (a) fruit processing; (b) fish processing; (c) poultry and poultry products; (e) beef and beef products; (f) FFV; (g) piggery products; (h) maize milling; (i) cassava processing; and (j) honey processing
- **Location of the park:** Most stakeholders hold the view that the most appropriate location for the park is Hoima district, with others going further to specify Buhimba sub-county in the district as being the ideal location, while others indicated Bugambe and Butema sub-counties as being most suitable locations. Another view held by a few stakeholders was that Kyankwanzi area would be a good location for the park as it is between Hoima and Kampala, and has the advantage of being further away from the refinery and associated industries and could therefor provide a pollution free environment

- **Obstacles likely to hinder the success of the Park:** In addition to the obstacles mentioned by large scale processors, the other stakeholders considered the following as being possible obstacles to the success of the Park: (a) procuring suitable land for the park in a suitable location; (b) attracting the right investors able to understand and capture the vision for the Park; (c) inability on the part of smallholders to access finance for acquisition of inputs like tractor hire service, pesticides, postharvest handling associated costs such as transportation of produce to the market; (d) lack of public transport; (e) poor infrastructure, especially lack of electricity and all-weather roads in the areas producing food for the park, and (f) illegal fishing that is depleting fish stocks in Lake Albert.

## Summary of Considerations for the Establishment of the Agro-Industrial Park

### **(b) Viability**

15. **Three divergent views have emerged regarding the viability of the concept of setting up the proposed Agro Industrial Park.** While one view dismisses the idea for the reason that the duration of the demand boom is too short to justify such large scale investments another is not comfortable with the park idea because it tends to concentrate the action in one location. Ordinarily it would not be prudent to invest significant resources in a venture whose products may not have any demand from the targeted market 3 years after plant commissioning. Targeting small scale investors with an eye on the market that is there to stay after the demand boom is over, may be a reasonable proposition especially if the venture is expected to produce goods that are not likely to attract any demand on the export market.

16. **However, for ventures with good prospects for the export market, the demand boom presents a launching pad, from which to commence production, develop capacity to handle large volumes at high quality standards, so that when the demand boom is over, the venture can easily find market abroad.** While it is true that an industrial park tends to concentrate the action in one location, the main objective of this approach is to leverage the large investment in infrastructural facilities to cover as many agro processing industries as possible in order to spread the cost and minimize the unit cost per industry covered. If such infrastructural facilities were to be set up for agro processing industries scattered across the region, the cost per industry would be prohibitive and difficult to justify, and worse still, it would take very long to mobilize resources and complete construction of the infrastructural facilities

### **(c) Location of the Agro Industrial Park**

17. **The overwhelming view among stakeholders that the Agro Industrial Park should be located in Hoima District,** which is central to the five districts making up the sub-region, is a reasonable and safe position which should not give rise to any controversy among the community in the region.

### **(d) Industries that should be included in the Park**



18. **In considering which industries should be given priority in the park, it would be prudent to consider industries engaged in processing agricultural products which have the potential to involve the greatest number of households in the region.** This would include:

- **FFV:** The region has the capacity to grow a wide range of these products if there is demand for the same;
- **Meats:** Plants for beef, chicken and pork, including facilities for slaughter and freezing with options for canning depending on identified demand;
- **Dairy:** Milk processing plants able to handle a range of processed milk products;
- **Fish:** Fish processing plants able to produce a variety of fish products including chilled and frozen products with options for smoking Tilapia and Cat fish, the most prominent species in the aquaculture sub-sector;
- **Maize, Cassava and Beans:** Maize, Cassava and Beans, are so widely grown in the region that industries based on these products would be able to involve higher number of households than any other crop.

#### **(e) Implementation of the park**

19. **According to the views expressed by processors, it is possible to obtain their buy-in and maximize their appetite for participation in the Park if they are brought on board early during the planning stages so that their concerns and fears are tabled are taken into account.** The example of Namanve (Kampala Industrial and Business Park- KIBP) cannot be ignored. The large processors that this Park would be targeting are among the same industrialists that were allocated industrial plots in KIBP. Please refer to **Box 1** below for an overview of experience with KIBP and other industrial parks in Uganda.

#### **Box 1. Uganda Experience with Industrial Parks**

UIA has been working on developing a portfolio of twenty three industrial parks which would enable manufacturers benefit from regional comparative advantages, with Kampala Industrial Business Park (KIBP) the first to be developed. This was considered an ambitious program.

KIBP was expected to be Uganda's biggest industrial park, one that would enable Uganda's industry to immediately leverage production for the local and export market. A WB-funded project was expected to finance the development of primary external or off-site infrastructure (access roads, intersections, water and electricity supply facilities, sewerage and wastewater treatment); capacity building of UIA in investment promotion and facilitation as well as industrial planning; development of an Implementation Plan for the KIBP, and assistance in the rolling out of the plan; and other activities.

In the beginning of this project, UIA undertook investment promotion efforts and succeeded in attracting a substantial number of businesses in multiple sectors; over 300 projects had been proposed and screened. Despite this marketing accomplishment, serious problems soon emerged. Decision was made to go for a more ambitious design than originally planned and this significantly increased costs and had significant environmental implications. The weak capacity of UIA to

effectively manage the component, especially related to civil works and environmental management, created significant challenges for implementation. Addressing these challenges took a long time, and Government made a decision to cancel this sub-component out of the WB project.

Overall, from 2006, when UIA invited investors to apply for land leases to date, a small number of investors have established structures and operations and much of KIBP's land still remains idle. Pioneers in the park, mainly Roofings Rolling Mills, Hima Cement, Export Trading Company, Kyagalanyi Coffee and Victoria Seeds have endured transport infrastructure challenges, as well as other major concerns like inadequate power, lack of water and fiber optic cables, as well as inadequate drainage and solid waste management facilities. Stakeholders note that they did not receive what was promised to them, such as serviced land and other ancillary services including street lighting, garbage collection and security.

A number of lessons can be learned from KIBP experience. First, the design of the park needs to be commensurate with the capacity of the implementing entity; although it might be tempting to opt for a more ambitious design to achieve a bigger impact, there is a much higher likelihood that the project will not take off at all. Environmental implications need to be taken into consideration during the design as these risks may be very difficult to manage. Second, investors' needs have to be met for them to set up their operations in the park. Investors have to be consulted extensively at different phases and their concerns addressed. Establishment of basic infrastructure in the park is paramount as without it investors will not be able to operate effectively. Finally, although the strategy of the country might be to establish numerous parks, it is important to sequence these initiatives appropriately as these are very complex projects each of which may take a long time to develop.

#### **(f) Smallholder farmers' concerns**

20. **If this park is to maximise the participation of the local community, it will be necessary to address any known challenges that are likely to prevent smallholders from producing to the best of their potential.** One of the most important actions to consider is bringing the processors to understand the benefits of empowering smallholders to produce to their potential, which may include empowering them in various ways. While in some cases it may mean running capacity building programs to ensure that they produce the highest possible quality standard, in other cases it may mean engaging smallholders on contract farming basis, while in other cases it may call for engaging them on a fully fledged outgrower arrangement.

#### *Special Projects*

21. **It is understood that when the necessary arrangements have been finalized, Park authorities will invite interested Agro processors to apply for space in the park which will be appraised and a decision communicated.** However, while certain areas will be left open, there are sub-sectors that possess the potential to employ or affect large numbers or large segments of the population in which Government will need to take particular interest in order to offer guidance and support where necessary. Such sub-sectors include fisheries, beef, dairy, poultry, piggery, fresh fruits and vegetables as well as staples. The paragraphs ahead give brief profiles of the projects which could be considered.

*(a) Fish farming*

22. **According to fish processors, the export orders for Ugandan fish exceed by far the quantity caught.** As a result the installed capacity is grossly underutilized. This situation is not helped by the declining catch from the national waters, which seems to get worse by the day due in part to uncontrolled use of illegal fishing gear that has led to the depletion of the fishery stock. While GoU has put in place a policy to promote fish farming in the country, most of the fish farms in the region have fallen dormant. As a result while the fish farming industry generated a lot of interest in the region, farmers who joined and dug ponds have not seen the benefit, due to a number of factors including lack of advisory services and suitable feeds to sustain production. The depletion of fish stocks from Lake Albert and the demand boom expected to come from the construction phase of the Oil and Gas industry calls for a new approach to promoting fish farming. In this regard it is proposed that the project approach supported by a matching grant mechanism be introduced to drive the effort to promote the industry.

23. **Interested and able investors could be invited to set up and manage large scale fish farming ventures with wide networks of ‘outgrowers’, and demonstration fish ponds that double as collection centers spread across the region, with at least one demo pond for each of the region’s twelve rural counties.** In addition each investor would be expected to establish a large scale fish processing plant with an intake capacity of at least 15 metric tons of raw fish per day, producing both frozen and chilled fillet of Tilapia and or Cat fish, at the highest possible standard. The project would also have a component for producing feed, also by an investor coming on board.

24. **Expected benefits from this project would include:** (a) increased household incomes through the activity and employment generated by the activity; (b) reduced pressure on Lake Albert, leading to reduced illegal fishing, and trade in immature fish, resulting in natural restocking of the lake; (c) increased Nile perch catch, since the domestic market prefers tilapia to Nile perch, and with the increased supply of tilapia, the need for immature Nile perch would diminish; (d) increased fish exports, and with time the unfulfilled export orders would be served; and (e) the project could act as a model for replication within the provisions of the National Investment Policy for Aquaculture.

*(b) Beef project – establishment of a beef plant including a modern slaughter house*

25. **While the region produces a lot of cattle, most of it is shipped to Kampala, and some of it is shipped back to the oil camps as processed meat all because the region does not have a modern slaughter house.** This makes the price of the processed meat in the region more expensive than it should be due to the double cost of avoidable transportation of the animals to and from Kampala *inter-alia*.

26. **The quantity of cattle produced in the region is more than enough to supply oil camps even during the projected peak period, but the absence of a modern slaughterhouse compels farmers to sell their animals to Kampala bound trucks who take the animals for slaughter.** If there was an abattoir, smallholder farmers would benefit by receiving a market for the animals within the region, which would improve their returns from cattle keeping. The cost of the final

product would come down substantially, making the protein affordable by more households who do not consume enough due to pricing related factors. It is believed that the presence of an abattoir in the region would also encourage more and more smallholders to join the sub-sector as suppliers thereby helping contribute to an improvement in the nation's beef consumption per capita which is currently lower than most in the region. It is believed, that the quality of beef cattle would also improve greatly due to the capacity building sessions sponsored by the investor in the slaughter business.

27. **Accordingly, a modern beef plant could be considered for this region.** The plant would comprise a slaughter facility as well as a freezing line together with modern packaging facilities with options for export grade canning.

*(c) Dairy project – setting up a dairy processing plant and a network of milk collection centers*

28. **Although the region has a significant population of dairy cattle, there is no single processing plant in the region save for a few milk cooling centers.** For example, the district of Kibaale with a herd estimated to be in the region of 250,000 has only one MCC that is located at one extreme end of the district. The opposite end of the district, which lies in the cattle corridor, with the biggest concentration of cattle in the district has no cooling plant.

29. **An integrated dairy processing enterprise could be established with the following components:** (a) a network of milk cooling plants, located in areas of high concentration of dairy cattle across the districts, which would provide a market for milk in the area where located; (b) a herd improvement component to provide smallholder farmers with improved breeds and equip them with the necessary knowledge and skills to manage the improved herd; and (c) a milk processing plant with sufficient capacity to meet a reasonable proportion of the industry's requirements. Like the beef project, the dairy project is expected to reach a big segment of the population, raising their household incomes and lifting thousands out of poverty. Accordingly, it is proposed that the project be included among projects to be supported with a matching grant facility.

*(d) Other special projects*

30. **The other sub-sectors with the capacity to impact the community by raising incomes for the vast majority of the region's households are poultry, piggery, fresh fruits and vegetables, and staples.**

#### **Infrastructure and other enabling facilities**

31. **One of the greatest barriers to improving competitiveness for most enterprises in the region is poor infrastructure.** While the region is richly endowed with good soils and an enabling climate and could easily grow a lot of food and a wide range of food types with limited use of chemical inputs, production is heavily constrained by the poor road infrastructure to the extent that when it rains some roads are completely impassable. In such situations smallholders are not able to take their produce to the market, and end up giving the same to the bicycle traders who at times buy the produce at such a low price that it becomes hard to motivate farmers to increase production when they are not sure that their labor may not be in vain.

32. **Owing to lack of power, smallholders do not have access to suitable storage facilities and primary processing of their produce is also limited.** Some of the areas in the region are far from the main water bodies. All these factors inter-alia, are likely to affect the success of the park, and the prospects for the transformation of the region and consequently the national economy.

33. **Accordingly, infrastructure would need to be improved to support the transformation process.** At the minimum, the project would aim at ensuring that every sub-county is connected with an all-weather road, and that produce from any sub-county can be transported to the industrial park even when it is a rainy season. In addition, the project would ensure that each sub-county has access to power and water both for agricultural production.

## ANNEX 9. Projected Weekly Food Requirements for the Oil Camps during the Period 2015-2019

Source: Makindye Country Club

	Food Item	Unit	Conversion	Year 1	Year 2	Year 3	Year 4	Year 5
			Rate (Kgs)	(Kgs)	(Kgs)	(Kgs)	(Kgs)	(Kgs)
<b>A</b>	<b>MEATS</b>							
1	Beef	KG	1	1,395	4,305	6,293	6,106	2,295
2	Chicken	KG	1	1,818	5,441	7,918	7,744	2,827
3	Mutton/Goat meat	KG	1	930	2,870	4,195	4,070	1,530
4	Pork	KG	1	692	2,115	3,087	3,003	1,118
<b>B</b>	<b>FISH</b>			-		-	-	-
1	Tilapia fillet	KG	1	692	2,115	3,087	3,003	1,118
2	Prawns peeled	KG	1	93	383	580	529	246
<b>C</b>	<b>SAUSAGES</b>			-		-	-	-
1	Beef sausages	KG	1	331	1,042	1,527	1,474	565
2	Pork sausages	KG	1	496	1,563	2,291	2,211	847
3	Bacon	KG	1	331	1,042	1,527	1,474	565
4	Cooked ham	KG	1	496	1,563	2,291	2,211	847
<b>D</b>	<b>DAIRY</b>			-		-	-	-
1	Milk (UHT)	LITERS		4,804	14,508	21,139	20,625	7,596
2	Yoghurt	LITERS		486	1,488	2,173	2,112	789
<b>E</b>	<b>FRUITS AND VEGETABLES</b>							
1	Bananas (Bogoya)	CLUST	2	1,601	4,836	7,046	6,875	2,532
2	Cabbages	PIECES	2	889	2,956	4,366	4,160	1,668
3	Egg plant	KG	1	320	967	1,409	1,375	506
4	Onions	KG	1	930	2,870	4,195	4,070	1,530
5	Tomatoes	KG	1	1,622	4,985	7,283	7,074	2,648
6	Fresh beans	KG	1	806	2,455	3,582	3,487	1,295
7	Water melon	PIECES	3	971	2,976	4,346	4,224	1,577
8	Pineapples	PIECES	2	971	2,976	4,346	4,224	1,577
9	Carrots	KG	1	651	2,009	2,937	2,849	1,071
10	French beans	KG	1	651	2,009	2,937	2,849	1,071
11	Couggets	KG	1	320	967	1,409	1,375	506
12	Pawpaws	PIECES	2	651	2,009	2,937	2,849	1,071
<b>F</b>	<b>OTHER FOOD ITEMS</b>							
1	Bananas (Matooke)	BUNCH	10	7,537	20,821	29,918	29,909	10,043
2	Rice	KG	1	1,395	4,305	6,293	6,106	2,295
3	Maize flour	KG	1	1,497	4,090	5,866	5,883	1,950
4	Cassava flour	KG	1	640	1,742	2,497	2,507	828
5	Millet flour	KG	1	640	1,742	2,497	2,507	828
6	Sweet potatoes	KG	1	1,291	3,559	5,112	5,113	1,713
7	Irish potatoes	KG	1	4,877	15,030	21,966	21,320	8,003
8	Dry beans	KG	1	878	2,497	3,605	3,574	1,239
9	Groundnuts	KG	1	878	2,497	3,605	3,574	1,239

## ANNEX 10. NATIONAL PARKS IN UGANDA AND TOURISM OFFERINGS<sup>121</sup>

**Table 1: Visitors to National Parks in Uganda, 2008-2012**

<b>National Parks</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Murchison Falls(MF-NP)	35,316	39,237	53,460	60,273	60,803
Queen Elizabeth(QE-NP)	53,921	62,513	76,037	87,924	58,172
Lake Mburo(LM-NP)	16,539	17,521	20,966	21,480	22,927
Bwindi Impenetrable (BI-NP)	10,362	11,806	15,108	17,335	18,259
Kibaale (K-NP)	7,383	7,799	9,482	10,433	10,372
Semliki(S-NP)	1,732	2,701	3,393	3,152	3,591
Mgahinga Gorilla(MG-NP)	3,303	1,886	3,328	1,899	2,497
Kidepo Valley(KV-NP)	1,633	2,924	3,208	2,452	2,300
Rwenzori Mountains(RM-NP)	2,020	1,281	1,529	1,738	1,663
Mount Elgon(ME-NP)	3,708	2,943	2,660	2,350	1,565
Toro Semliki	955	759	640	770	0
Katonga	287	448	301	-	0
<b>Total</b>	<b>137,159</b>	<b>151,818</b>	<b>190,112</b>	<b>209,806</b>	<b>182,149</b>

**Table 2: Description of Activities at Uganda National Parks  
(in the order of the land area size)**

<sup>121</sup> Uganda Wildlife Authority

#	Name	Areas (km <sup>2</sup> )	Description	Activities
1	Murchison Falls National Park	3,840	Murchison Falls became one of Uganda's first national parks in 1952. It is Uganda's largest and oldest conservation area, hosting 76 species of mammals and 451 birds. The park is bisected by the Victoria Nile, which plunges 45m over the remnant rift valley wall, creating the dramatic Murchison Falls, the centerpiece of the park and the final event in an 80km stretch of rapids. The mighty cascade drains the last of the river's energy, transforming it into a broad, placid stream that flows quietly across the rift valley floor into Lake Albert. This stretch of river provides one of Uganda's most remarkable wildlife spectacles.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounters include Mubako cultural campfire performances, the villages of Kihaguzi and Kigaragara, etc;</li> <li>• Game drive around the Buligi game tracks;</li> <li>• Nature walks through Kaniyo Pabidi, Rabongo forests, Nile-Lake Albert delta, etc;</li> <li>• Launch trips;</li> <li>• Sport fishing.</li> </ul>
2	Queen Elizabeth National Park	1,978	The park spans the equator lines. It is home to over 95 mammal species and over 600 bird species. As well as its outstanding wildlife attractions, Queen Elizabeth National Park has a fascinating cultural history. There are many opportunities for visitors to meet the local communities and enjoy storytelling, dance, music and more. The gazettement of the park has ensured the conservation of its ecosystems, which in turn benefits the surrounding communities.	<ul style="list-style-type: none"> <li>• Birding tours: the park is home to over 600 species. This is the greatest of any East African national park;</li> <li>• Cave tours;</li> <li>• Chimp tracking;</li> <li>• Cultural encounters include Leopard village, Kikorongo women community, Katwe village, Nyanz'ibiri cave community, Kataara village, etc;</li> <li>• Game drives;</li> <li>• Nature walks;</li> <li>• The Kazinga channel tours;</li> <li>• Wildlife research tours.</li> </ul>
3	Kidepo Valley National Park	1,422	Kidepo is Uganda's most isolated national park. It has a profusion of big game and hosts over 77 mammal species as well as around 475 bird species. The park contains two rivers Kidepo and Narus. The local communities around the park include pastoral Karamojong people.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Game drives in Kidepo valley</li> <li>• Nature walks in Lomej mountains, Narus valley, Kidepo river valley, Namamkweny valley, Morungole mountains, etc.</li> </ul>
4	Mount Elgon National Park	1,121	Mt. Elgon has the largest volcanic base in the world. Located on the Uganda-Kenya border it is also the oldest and largest solitary, volcanic mountain in East Africa. The park	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Culture encounters include Sabinu community, Budadiri community, etc;</li> <li>• Nature walks;</li> </ul>



			is home to over 300 species of birds, including the endangered Lammergeyer. The higher slopes are protected by national parks in Uganda and Kenya, creating an extensive trans-boundary conservation area which has been declared a UNESCO Man & Biosphere Reserve.	<ul style="list-style-type: none"> <li>• Mountain biking tours;</li> <li>• Volcano climbing tours;</li> <li>• Nature walks;</li> <li>• Rock climbing tours;</li> <li>• Sport fishing.</li> </ul>
5	Rwenzori Mountains National Park	996	The park was gazetted in 1991 and was recognized as a World Heritage site in 1994 and Ramsar site in 2008. Rwenzori Mountains National Park protects the highest parts of the 120km-long and 65km-wide Rwenzori mountain range. The national park hosts 70 mammals and 217 bird species including 19 Albertine Rift endemics, as well as some of the world's rarest vegetation.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounters include Ruboni community, Mihunga community, Bulemba-Ihandiro cultural trail;</li> <li>• Nature walks;</li> <li>• Mountain/volcano climbing in the central circuit trail and Kilembe trail.</li> </ul>
6	Kibale National Park	795	Kibale National Park contains one of the loveliest and most varied tracts of tropical forest in Uganda. The Kibale-Fort Portal area is one of Uganda's most rewarding destinations to explore. The park lies close to the tranquil Ndali-Kasenda crater area and within half a day's drive of the Queen Elizabeth, Rwenzori Mountains and Semuliki National Parks, as well as the Toro-Semliki Wildlife Reserve.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Kanyanchu primate walk, Chimpanzee habituation experience;</li> <li>• Cultural encounters through Magombe swamp wetlands tours;</li> <li>• Night nature walks.</li> </ul>
7	Lake Mburo National Park	370	It is a compact gem, located conveniently close to the highway that connects Kampala to the parks of western Uganda. It is the smallest of Uganda's savannah national parks and underlain by ancient Precambrian metamorphic rocks which date back more than 500 million years. It is home to 350 bird species as well as zebra, impala, eland, buffalo, oribi, Defassa waterbuck, leopard, hippo, hyena, topi and reedbuck.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Game drives include a variety of landscape features; acacia woodland, wetlands, grassy hillsides, rock outcrops and seasonally flooded valley floors;</li> <li>• Nature walks;</li> <li>• Horseback safaris;</li> <li>• Launch trips;</li> <li>• Sport fishing.</li> </ul>
8	Bwindi Impenetrable National Park	321	Bwindi was gazetted as a National Park in 1991 and declared a UNESCO Natural World Heritage Site in 1994. It lies in southwestern Uganda on the edge of the Rift Valley. Its mist-covered hillsides are blanketed by one of Uganda's	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounters include: Buhoma community tours, Nkuringo community tours, Nyundo community eco-trails, Rubuguri village walks, etc.</li> </ul>

			oldest and most biologically diverse rainforests, which dates back over 25,000 years and contains almost 400 species of plants.	<ul style="list-style-type: none"> <li>• Mountain biking tours;</li> <li>• Gorilla tracking tours;</li> <li>• Six main nature trails include: Muyanga waterfall Walk, Rushura hill walk, muzubijiro loop, the Ivi River walk, the Buhoma-Nkuringo trail, the Habinyanja trail.</li> </ul>
9	Semuliki National Park	220	Semuliki National Park sprawls across the floor of the Semliki Valley on the remote, western side of the Rwenzori. The park is dominated by the easternmost extension of the great Ituri Forest of the Congo Basin. This is one of Africa's most ancient and bio-diverse forests; one of the few to survive the last ice age, 12-18,000 years ago. It is the only tract of true lowland tropical forest in East Africa, hosting 441 recorded bird species and 53 mammals.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounter include Batwa community, boma cultural village, etc;</li> <li>• Game drives;</li> <li>• Nature walks;</li> <li>• Hot springs.</li> </ul>
10	Mgahinga Gorilla National Park	33.7	The park was created to protect the rare mountain gorillas that inhabit its dense forests, and it is also an important habitat for the endangered golden monkey.	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounters through the Batwa trail;</li> <li>• Gorilla tracking;</li> <li>• Mountain and volcano climbing: Mt. Sabinyo, Mt. Gahinga and Mt. Muhavura.</li> <li>• Nature walks.</li> </ul>

## ANNEX 11. CASE STUDIES OF NATURAL RESOURCES EXPLORATION IN NATURE RESERVES AND PROTECTED AREAS

### Good Practice – Case Studies: Canada, Australia, Namibia

#### a) Oil exploration in Sable Island National Park, Canada

1. **Sable Island is located approximately 300 kilometers offshore from Halifax and is an ecological gem.** It is home to wild horses, immense sand dunes, the largest grey seal colony in the world, and a variety of species-at-risk. However, it is also the first national park in Canada that is located in the middle of a petroleum field. The Canadian government has estimated US\$2.4-billion worth of natural gas and oil underneath Sable Island. A legal ban on surface drilling on the island, and out to one nautical mile, is now in place. The legislation attempts to limit oil and gas exploration activities to only those that are considered as low impact such as sub-surface horizontal drilling beneath the island and low-level seismic testing on top of the island. In addition to this new legislation, there is a conservation strategy for Sable Island prepared in 1998 by Environment Canada's Canadian Wildlife Services. The strategy defines the environmental limits within which future activities should proceed and the various conservation priorities.

2. **To protect the uniqueness and integrity of Sable Island, ExxonMobil, which holds the exploration rights on and around Sable, has developed a code of practice.** It provides a guide for the design, development and implementation of the Sable Island project. It also serves as a guideline for all personnel working on aspects of the project concerning human interactions with the Sable Island environment. Parks Canada, Canada's national parks agency, is also working on its vision for Sable and a management plan to facilitate opportunities for Canadians to connect with Sable Island in a sustainable way.

#### b) Co-existence of mining and tourism in Broken Hill, Australia

3. **The experience in Broken Hill, Australia has demonstrated that the mining industry and tourism industry can drive the local economy collectively.** Broken Hill is a mining town located in the west of New South Wales, Australia. The world's richest lead-zinc ore body was found on the Broken Hill Ore Deposit.

4. **The world's largest mining company, BHP Billiton, has roots in the city.** The mining industry has provided the majority of direct and indirect employment in the city. While mining has declined in recent years, the city has made efforts to promote itself as a tourism destination in order to become less reliant upon mining as a source of employment. BHP Billiton also manages the Olympic Dam project which is located in South Australia and is set to be the site of the world's biggest mine. The company and the state government are working together to turn it into a man-made tourist attraction once mining is terminated. One of the plans is to fill the pit with rising groundwater and create a vast outback lake.

#### c) Co-existence of mining and tourism in the Central Namib, Namibia

5. **Namibia's Central Namib Desert is a valued landscape for diverse habitats and people.** The region is also rich in mineral deposits and supports a diverse mining industry. By 2007, when the Ministry of Mines and Energy issued a moratorium on uranium exploration, 36 exploration licenses had been granted in the Central Namib, both inside and outside of national parks, in line with Namibian Policy which allows for mining in Protected Areas under certain conditions. Exploration and mining activities within Protected Areas must comply with the environmental and economic regulatory framework.

6. **A Central Namib landscape assessment was carried out to better understand the ecological, socio-cultural and economic activities within the landscape.** A priority was placed on identifying areas where mining and other development pressures coincided with high tourism values and managing stakeholders' impacts on biodiversity to minimize the conflict. The assessment can serve as a decision support tool for different stakeholders in this region. As indicated in the findings of the assessment, over half of the Central Namib ecosystems were found to be of moderate to high vulnerability. The results also documented that multiple landuses contribute to local livelihoods and the economy outside of the mining industry. Tourism is one of the key drivers and contributes close to US\$70 million per year (2010 value). The growth of the tourism industry in the area depends on maintaining and protecting the natural capital. In the Minerals Policy of Namibia, the government has emphasized that short to medium term projects, such as mining, do not jeopardize the potential for long-term sustainable development in tourism.

7. **In addition to the Central Namib, existing and planned mines are also located on the edge of or within the Namib Naukluft National Park.** In order to mitigate the negative environmental impacts, Namibia has established a public-private collaboration to ensure that uranium mining does not degrade the regional environment or adversely affect the health of employees and has settled populations away from the mines. The government has adopted a set of wide-ranging environmental compliance targets for the whole area in which either mining or exploration takes place, not just with respect to individual operations. In the private sector, the Chamber of Mines of Namibia previously established a Uranium Stewardship Committee to provide leadership and foster good governance.

#### **Potential Risks – Case Study: Oil Spill Disaster in the Gulf Region (USA)**

8. **The Deepwater Horizon oil spill which took place April 2010 in the Gulf of Mexico is the most significant offshore spill in U.S. history.** Given the known risks associated with oil drilling and the case of the 2010 Gulf spill, Uganda's tourism stakeholders can learn from this experience particularly in terms of immediate and longer term impacts.

9. **The total estimated spill ranged from 100 million to 184 million gallons of oil<sup>122</sup>.** The five states in the Gulf that were affected by the spill include Alabama, Mississippi, Louisiana, Texas and Florida. The spill caused extensive damage to marine and wildlife habitats and to the Gulf's fishing and tourism industries.

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<sup>122</sup> Ritchie, B; Crotts, J; Zehrer, A; Volsky, G; Understanding the Effects of a Tourism Crisis: The impact of the BP Oil Spill on Regional Lodging Demand, Journal of Travel Research, 2013

10. **Tourism is one of the top economic drivers of the Gulf region.** Research shows that the tourism sector in the Gulf region generates nearly 400,000 jobs, representing 15 percent of total private sector employment in the region compared with 12 percent for the entire country. The visitor economy is a diverse composite of sectors and the total amount of visitor expenditures exceeded US\$34 billion in 2008<sup>123</sup>.

11. **This oil spill led to significant negative impacts on tourism.** First, travel intentions and demands decreased dramatically. Second, the regional economy has been affected significantly and such negative impact has lasted for an extended period beyond the period of the oil clean up. Third, visitors' misperception and uncertainty led to destination brand damage of the Gulf region. Last but not least, oil that flowed into the Gulf caused significant and lasting damage to tourism assets, including marine and wildlife habitats.

a) **Deterioration of Tourism Assets**

12. **Since the 2010 oil spill began, this environmental disaster decreased fishery outputs and harmed ecosystems throughout the fragile Gulf Coast region.** It was called the “worst environmental disaster the US has faced” by the White House energy adviser. **Figure 1** is a map published by the National Oceanic and Atmospheric Administration highlighting where the explosion took place and the probability of shoreline deposits of the toxic oil. One of the most significant environmental impacts was on marine species. Eight national parks were threatened and more than 400 species that live in the Gulf islands and marshlands were at risk<sup>124</sup>. Other impacts on tourism caused by environmental constraints include contamination and pollution of waterways and land. In addition, the clean-up itself caused damage to the overall fragile ecosystem.

**Figure 1: Probability of Shoreline Threat Deepwater Horizon MC 252<sup>125</sup>**



**Figure 2: National Parks Threatened by the Gulf Oil Spill<sup>126</sup>**



<sup>123</sup> Potential Impact of the Gulf Oil Spill on Tourism, Oxford Economics, n.d.

<sup>124</sup> Gulf Oil Spill Responses, National Parks Conservation Association, 2010

<sup>125</sup> National Oceanic and Atmospheric Administration (NOAA), 2010

<sup>126</sup> National Parks Conservation Association

## *Implication for Uganda*

13. **Nature resources and wildlife are the essential assets for nature-based tourism in Uganda.** The Albertine region has a fragile ecosystem that requires strategic conservation. Wildlife population numbers have been decreasing due to the conflict between humans and wildlife. Nature resources and wildlife are key drivers to the sustainability of Uganda’s tourism sector. The table below illustrates examples of oil exploration activities during the construction phase and potential impact on tourism assets in MFNP.

**Table 1: Examples of Oil Exploration Activities and Impact on the Tourism Assets**

Example of activities	Example of impact on the tourism assets	Tourism offerings in MFNP
Land clearing	Loss of habitat, introduction of plant disease	<ul style="list-style-type: none"> <li>• Birding tours;</li> <li>• Cultural encounters include Mubako cultural campfire performances, the villages of Kihaguzi and Kigaragara, etc;</li> <li>• Game drive around the Buligi game tracks;</li> <li>• Nature walks through Kaniyo Pabidi, Rabongo forests, Nile-Lake Albert delta, etc;</li> <li>• Launch trips;</li> <li>• Sport fishing.</li> </ul>
Construction of facilities, roads, camps and pipelines	Habitats loss or fragmentation, road kills, air pollution, noise and light pollution	
Digging and hauling	Air pollution, vibration, water pollution, noise pollution, changes in behaviors for wildlife	
Chemical usage	Loss of species, toxicity, water pollution	
Waste disposal	Encouragement of pests, disease transfer, contamination of groundwater and soil	
Population growth	Loss of habitat or species, stress on local and regional resources, pest introduction	

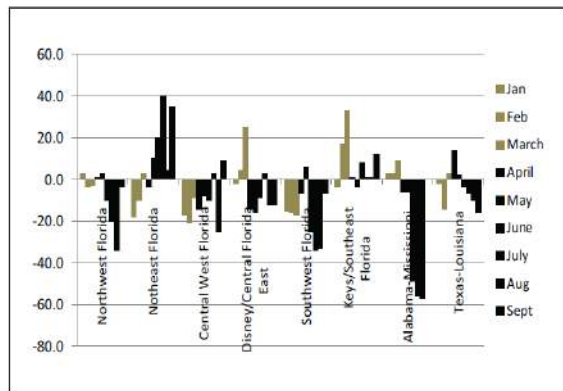
### **b) Loss of Travel Demand**

14. **An immediate negative impact caused by the oil spill in the Gulf region was the decline in travel intention and demand.** According to the June 2010 survey carried out by the leading market research provider TNS, 10% of those already intending to travel to the Gulf region had changed their plans due to the oil spill. Another 22% had decided not to go for unspecified reasons<sup>127</sup>. This represents the average for the entire Gulf shore region including areas that have been untouched by the oil and illustrates that the impact on tourism demand was beyond the geographic areas where the disaster took place.

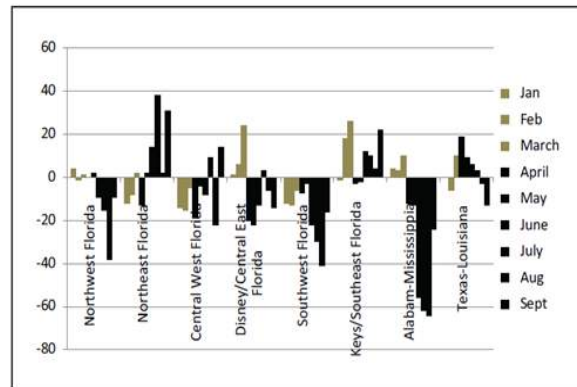
<sup>127</sup> *Potential Impact of the Gulf Oil Spill on Tourism*, Oxford Economics, n.d.

15. In terms of actual demand and revenue lost, a recent study compared the demand and revenue for the vacation rental industry across the Gulf's eight coastal regions in 2010 versus 2009<sup>128</sup>. Starting in April when the oil spill took place, the demand for vacation rentals decreased dramatically. The change in demand is significantly related to changes in rental revenue. Revenue went down for the first month across the region. Once the oil spill began, vacation rental revenue declined even more sharply, down by an average of 7.9%. The study also shows that the vacation rental industry in the Gulf region lagged significantly behind their counterparts across other regions in the United States. Although leisure market demand dropped, hotel revenue across the affected regions benefited from replacement demand generated by the cleanup crews and news media members.

**Figure 3. Change in demand in the vacation rental sector by coastal county region in 2010 versus 2009<sup>129</sup>**



**Figure 4. Change in revenue in the vacation rental sector by coastal county region in 2010 versus 2009**



### *Implication for Uganda*

16. In the context of Uganda's tourism, the leisure market segment is one of the country's largest demand segments. Results from an economic analysis of tourist expenditures indicate spending by leisure tourists stimulates more GDP per dollar spent than the average traditional export in Uganda. In addition, leisure and cultural tourists spend 30-100 percent more per visit than other tourists, such as business tourists. Wildlife safaris and gorilla viewing are the most popular with leisure tourists followed by adventure activities and backpacking. Local hotels, inexpensive motels/inns/guest houses, and private homes are top accommodation choices for most tourists. The data shows private home stays are on average longest. The current budget market demand is healthy as some sites in the parks are operating at or over 100% whereas accommodation at the upper end of demand is weak, with occupancy rates at around 20%<sup>130</sup>.

<sup>128</sup> Ritchie, B; Crotts, J; Zehrer, A; Volsky, G; *Understanding the Effects of a Tourism Crisis: The impact of the BP Oil Spill on Regional Lodging Demand*, Journal of Travel Research, 2013

<sup>129</sup> *Understanding the Effects of a Tourism Crisis: The impact of the BP Oil Spill on Regional Lodging Demand*, Journal of Travel Research, 2013

<sup>130</sup> *Economic and Statistical Analysis of Tourism in Uganda*. The World Bank, June 2013

17. **With this context, an oil spill disaster would lead to decreased demand for leisure tourism and decline in related tourist expenditures which have strong linkages to the local economy.** Another issue that needs to be taken into consideration is the infrastructure and equipment gaps in the national parks. The current capacity is not sufficient for responding to a crisis and needs to be expanded in order to accommodate the operations and crew in a disaster scenario.

**c) Interruption of Local Economic Development**

18. **According to the research, the economic impact caused by the oil spill in the Gulf is expected to last 15 months with a total of US\$7.6 billion lost in the tourism revenue.** However, the existing negative impacts indicate the tourism industry will continue to suffer from the disaster over a period of 36 months, resulting in lost tourism revenues of \$22.7 billion as shown in **Table 2**. Consequently, the scale and duration of this oil spill disaster are significant. The impact is also expected to be beyond the immediate geographical area and affect the tourism in the neighboring regions.

**Table 2: Total Economic Impact Scenarios on Gulf Region<sup>131</sup>**

	Low Impact			High Impact		
Months	15			36		
Revenues	US\$ (billions)	% 1 year outlook*	% 3 year outlook**	US\$ (billions)	% 1 year outlook*	% 3 year outlook**
Total Region	\$7.6	12%	4%	\$22.7	25%	8%
Florida	\$6.3	13%	5%	\$18.6	27%	14%
Louisiana	\$0.7	17%	6%	\$2.0	37%	18%
Mississippi	\$0.4	19%	7%	\$1.2	41%	20%
Alabama	\$0.3	19%	7%	\$0.8	41%	20%
Texas	\$0.0	0%	0%	\$0.1	1%	0%

\*Potential lost revenues in the first 12 months relative to business as usual for coast economies.

\*\* Potential lost revenues over the next 36 months relative to business as usual for coast economies.

***Implication for Uganda***

19. **There is an alarming potential impact for Uganda as the MFNP is located in the Albertine region where two tourism development areas have been identified.** The tourism sector offers multiple employment opportunities for local communities. A possible oil spill would directly interrupt existing tourism activities and future development in this region. Tour operators have indicated that people who visit Uganda usually go on a 10-14 day circuit safari visiting 4-5 parks and also visit neighboring countries. As a result, tour operators' income would not be affected significantly. However, local communities whose income relies on the tourism would be affected the most. Private sector operators that have increasing lodging investments in the national parks are also facing the potential risks and the local communities may lose these opportunities to

<sup>131</sup> Oxford Economics, Potential Impact of the Gulf Oil Spill on Tourism, n.d.



upgrade the infrastructure. The negative impacts created by the oil exploration activities will also extend to the fishing and agriculture sectors which are essential to the local economic development and are of high ecological and biodiversity significance.

**d) Threat of Negative Destination Brand**

20. **Brand damage has a long and profound impact on tourism as it requires multi-year and high cost efforts to attract tourists back to a region.** In the case of the Gulf region, the destination brand had been established over the years. Across the Gulf region, there are several destinations which had earned a world-class reputation among the travelers, such as Florida. However, a US\$500 million marketing effort has now been committed to bring tourists back and stimulate tourist spending, as **Table 3** shows. It is expected that the US\$500 million in marketing would generate US\$7.5 billion in tourism spending in the regions affected by the oil spill.

**Table 3: Gulf Region Expected Event Impacts (US\$ million, three-year cumulative)<sup>132</sup>**

<b>Tourism Industry Loss</b>	
Low Impact	\$ 7,621
High Impact	\$ 22,737
Difference	\$ 15,115
<b>Suggested Marketing</b>	\$ 500
Assumed ROI (Visitor Spend Per Dollar Marketing)	15:1
<b>Visitor Spend Benefit</b>	\$ 7,500
% of High-Low Difference	50%
% of High-Impact Scenario	33%

***Implication for Uganda***

21. **At the time of the Uganda tourism sector situational assessment (2013), there was no sustainable marketing mechanism and no clear strategy on target markets.** An effective destination brand for Uganda is yet to be established and Uganda is facing competition from neighbors in the region. Moving forward, it is critical for Uganda to integrate sustainable tourism into its overall marketing plan, since the oil extraction activities will co-exist with the tourism industry for the next 20-50 years. Visitors’ perception must be well managed by providing adequate information about oil activities in the national parks and taking actions to address tourists’ concerns.

22. **In addition, the overall image of Uganda may also be affected negatively by the oil extraction activities in the national parks even without a spill.** Oil and tourism are both key drivers of FDI for Uganda. Uganda must manage its brand effectively to ensure the investments in both oil and tourism grow.

<sup>132</sup> Potential Impact of the Gulf Oil Spill on Tourism, Oxford Economics, n.d.

## ANNEX 12. SURVEY INSTRUMENT FOR TOURISTS

LODGE \_\_\_\_\_



**The World Bank  
and  
Ministry of Tourism, Wildlife and Antiquities**



### Survey of Tourists' Experience at the Murchison Falls National Park

**Objective.** This survey has the goal of assessing the tourists' experience in the Murchison Falls National Park and determining whether the oil exploration activities have an impact on the tourists' enjoyment of the park. The results of the survey will be used to elaborate recommendations on how to ensure that the two economic activities could co-exist. For instance, some improvements may be identified to minimize disturbance for tourists coming from oil exploration in the park.

**Confidentiality.** The information provided on this form will remain strictly confidential.

#### YOUR PROFILE

**i. Your Age:**

Below 25 years old  25-45 years old  45 – 65 years old  65 and above

**ii. Your Gender**

Female  Male

**iii. Country you have come from**

\_\_\_\_\_

**iv. Your main purpose of visit to Uganda**

Vacation  Visiting friends/relatives  Business  Resident  Other (specify) \_\_\_\_\_

**v. How many times have you been to Uganda?**

Never  Once  Twice  Thrice or more  Resident

**vi. How many nights did you stay: (1) At Murchison? \_\_\_\_\_ (2) In Uganda?**

\_\_\_\_\_

**vii. Have you visited any national parks or game reserves in the past?**

Yes  No

If YES, please name countries and parks/reserves

\_\_\_\_\_

#### YOUR EXPERIENCE AT THE MURCHISON FALLS NATIONAL PARK

**1. What was your main source of information about the Murchison Falls National Park?**

Internet  Friends/Relatives  Travel agent, travel guidebooks  Newspaper, magazine  TV/radio  Other (specify) \_\_\_\_\_

**2. How would you rate your overall experience at the Murchison Falls National Park?**

Excellent  Very good  Good  50-50  Poor  Very poor

**3. Did you see all species of animals you wanted to see at the Murchison Falls National Park?**

Of course, yes  For the most part, yes  Probably not  Absolutely not

**If NOT, did you get an explanation as on why you could not see those animals?**

Yes  No

**If YES, what kind of explanation was provided?  
you?**

**Who provided this explanation to**

The time of the day/weather was not right	<input type="checkbox"/>	Guide	<input type="checkbox"/>
There are fewer animals in the park due to poaching	<input type="checkbox"/>	Hotel personnel	<input type="checkbox"/>
There is oil exploration in the park and animals migrated to other areas	<input type="checkbox"/>	Other Tourist	<input type="checkbox"/>
You are not expected to see all animals every time	<input type="checkbox"/>	Park official	<input type="checkbox"/>

**4. Were you aware of the oil exploration at the Murchison Falls National Park before visiting it?**

Yes  No

**5. Did you notice any oil exploration related activity in the Murchison Falls National Park during your stay (i.e. workers, tracks, oil rigs, ...)?**

Yes  No

**6. Did the oil activities negatively impact your enjoyment of the park and your overall tourism experience?**

No impact	Minor impact	Moderate impact	Major impact	Very severe impact	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. In your view, has everything possible been done to minimize disruption coming from the oil exploration in the park for the tourists?**

Absolutely not  Probably not  May be  Probably yes  Of course, yes  Do not know

**8. If you believe that some improvements could still be made, what would you suggest?**

	Yes	No
Create separate entrances into the park for oil workers and tourists	<input type="checkbox"/>	<input type="checkbox"/>
Create separate tourists' and oil workers' tracks within the park	<input type="checkbox"/>	<input type="checkbox"/>
Utilize a separate ferry for tourists and oil workers/vehicles	<input type="checkbox"/>	<input type="checkbox"/>
Remove "no entry" signs in the park	<input type="checkbox"/>	<input type="checkbox"/>
Provide much more information to the tourists on the oil exploration	<input type="checkbox"/>	<input type="checkbox"/>

Other \_\_\_\_\_  
\_\_\_\_\_

**9. Have you ever visited any national park where oil, gas, minerals etc. exploration is taking place?**

Yes  No

If YES, what lessons can you borrow from there?

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10. Based on your current experience in the Murchison Falls National Park, if you were to advise a friend (or consider yourself) whether to visit a national park/game reserve you would:

Consider visiting/advise a friend to visit Murchison Falls National Park

Visit/advise a friend to visit a national park in Uganda, but other than Murchison Falls National Park

Visit/advise a friend to visit a different country

Please provide any additional comments below:

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## ANNEX 13. SURVEY INSTRUMENT FOR GUIDES AND RANGERS

1. Have you noticed any decline in wildlife environment in MFNP in the recent years?

Yes  No  somewhat

Please provide any comments \_\_\_\_\_  
\_\_\_\_\_

2. Are you aware of oil exploration activities in MFNP?

Yes  No

3. Do you inform the tourists on game drives about oil exploration at MFNP?

Yes  No  Sometimes

4. Based on your experience, are tourists on game drives usually aware of oil exploration in the park before coming on the game drive?

Yes  No  Sometimes

5. Have you received any complaints/comments from tourists regarding oil exploration in the park?

Yes  No

If YES, please provide a brief description of complaints/comments  
\_\_\_\_\_  
\_\_\_\_\_

6. Based on your discussions with the tourists, does the oil exploration in the park impact their enjoyment of the park?

No impact	Minor impact	Moderate impact	Major impact	Very severe impact	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. In your view, due to oil exploration in the park, there has been:

- a) An overall decline in sightings of all animal species

Yes  No

b) Decline in sightings of only certain species animal species

Yes  No

If YES, please name the species \_\_\_\_\_

8. In your own view, and based on feedback provided by the tourists, has everything possible been done to minimize disruption coming from the oil exploration in the park for the tourists?

Absolutely not  Probably not  May be  Probably yes  Of course, yes  Do not know

9. If you believe that some improvements could still be made, what would you suggest?

	Yes	No
Create separate entrances into the park for oil workers and tourists	<input type="checkbox"/>	<input type="checkbox"/>
Create separate tourists' and oil workers' tracks within the park	<input type="checkbox"/>	<input type="checkbox"/>
Utilize a separate ferry for tourists and oil workers/vehicles	<input type="checkbox"/>	<input type="checkbox"/>
Remove "no entry" signs in the park	<input type="checkbox"/>	<input type="checkbox"/>
Provide much more information to the tourists on the oil exploration	<input type="checkbox"/>	<input type="checkbox"/>

Other \_\_\_\_\_

\_\_\_\_\_

Please provide any additional comments below: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## ANNEX 14. SURVEY INSTRUMENT FOR TOUR OPERATORS

1. Number of tourists who booked travel to Murchison Falls National Park (MFNP) through your agency in 2011-2014

2011 \_\_\_\_\_

2012 \_\_\_\_\_

2013 \_\_\_\_\_

2014 \_\_\_\_\_

2. Based on your personal experience, how would you rate MFNP compared to all other National Parks in Uganda?

Excellent	Very good	Good	50-50	Poor	Very poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. How do the tourists generally rate their experience at the MFNP?

Excellent	Very good	Good	50-50	Poor	Very poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Have you noticed any decline in satisfaction of tourists with the MNFP in the last several years?

Yes  No

5. Have you received any complaints/comments from tourists related to their experience in the MNFP?

Yes  No

If YES, what did complaints relate to (check all applicable)?

- Tourists did not see all the animals they wanted
- Tourists did not like the disturbance coming from oil exploration (rigs, workers, trucks)
- Tourists did not like the service provided by lodges

Please provide a brief description of complaints/comments related to oil exploration (if any)

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6. Based on your discussions with the tourists, does the oil exploration in the park impact their enjoyment of the park?

No impact	Minor impact	Moderate impact	Major impact	Very severe impact	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. In your view and based on discussions with the tourists, due to oil exploration in the park, there has been:

c) An overall decline in sightings of all animals species

Yes  No  Somewhat

d) Decline in sightings of only certain animal species

Yes  No  Somewhat

If YES or SOMEWHAT, please name the species

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8. Do you inform the tourists booking trips to MNFP through your agency about oil exploration?

Yes  No  Sometimes

9. In your view and based on feedback provided by the tourists, has everything possible been done to minimize disruption coming from the oil exploration in the park for the tourists?

Absolutely not	Probably not	May be	Probably yes	Of course, yes	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. If you believe that some improvements could still be made, what would you suggest?

	Yes	No
Create separate entrances into the park for oil workers and tourists	<input type="checkbox"/>	<input type="checkbox"/>
Create separate tourists' and oil workers' tracks within the park	<input type="checkbox"/>	<input type="checkbox"/>
Utilize a separate ferry for tourists and oil workers/vehicles	<input type="checkbox"/>	<input type="checkbox"/>
Remove "no entry" signs in the park	<input type="checkbox"/>	<input type="checkbox"/>
Provide much more information to the tourists on the oil exploration	<input type="checkbox"/>	<input type="checkbox"/>

Other \_\_\_\_\_

Please provide any additional comments below: \_\_\_\_\_



## ANNEX 15. SURVEY METHODOLOGY AND LIMITATIONS

1. Survey data collection was carried out during June 13-16, 2014. Interview dates were chosen to ensure a convenient sample of tourists during high season. Face to face interviews and self-enumeration methods were used to collect the data. One hundred and twenty nine tourists were randomly identified to participate in the survey.

2. The principal unit of measure of the survey is the tourist and a sample of tourists was collected in six lodges located within and proximate to the MFNP. Paper questionnaires were distributed and the goal of the survey and the need for their inputs were explained to targeted respondents. In most of the cases the team was present for any clarifications while questionnaires were completed.

Target Population	Tourists visiting the MFNP
Sampling Unit	Tourists in six lodges
Survey Method	Face to face interview
Instrument	10-question questionnaire
Survey Date	June 13-16, 2014
Initial Sample Size	136
Effective Sample Size	129
Response Rate	96%

3. UWA representatives, tour operators and park rangers and guides were interviewed to obtain additional data and opinions. Conclusions were drawn based upon the findings from the questionnaire completed by tourists and those meetings with key stakeholders that were held separately.

4. Specifically, 38 guides and park rangers, and 6 tour operators were also interviewed. Guides and park rangers were randomly identified. A sample of guides and park rangers was collected at the lodges and during meetings with the Uganda Wildlife Authority and the Uganda Tour Guides' Association.

5. It is important to note that the survey was conducted when there were no ongoing activities in the park (as the exploration/appraisal phase was over, and the construction phase had not yet started). The impact of oil activities on tourists may therefore not be fully captured in this survey. Results suggest the value of this data collection and the certain value of conducting further surveys in the park during the construction phase.

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## ANNEX 17. LIST OF KEY INFORMANTS MET DURING THE MISSIONS

INSTITUTION/MINISTRY	NAME	TITLE
<b>Governmental Agencies</b>		
Petroleum Exploration and Production Department, Ministry of Energy and Mineral Development	Mr. Bernard Ongodia	Senior Geophysicist
	Mr. Ronald Goolala	National Content Development and Capacity Building Officer
	Ms. Betty Namubiru	National Content Development and Capacity Building Officer
	Ms. Susan Kateme	Administration and International Cooperation
	Ms. Emilly Nakamya	Economist
MOFPED	Dr. Peter Ngategize	Coordinator, CICS
Ministry of Trade, Industry and Cooperatives	Mr. Joshua Mutambi	Ag. Commissioner, Department of Industry and Technology
NAADS	Dr. Sam Mugaasi	Executive Director
Uganda Investment Authority	Mr. Albert Ouma	Director, Small and Medium Enterprises Division
Uganda Wildlife Authority	Mr. Andrew Seguya	Executive Director
Ministry of Tourism, Wildlife and Antiquities	Ms. Grace Mbabazi Aulo	Ag Director Tourism, Wildlife and Antiquities
	Mr. George Owoyesigire	Principal Wildlife Officer
OPM/ Bunyoro Affairs	Hon Ernest Kiiza	Minister of State
Hoima District Officials	Mr George Ntulume	CAO
	Mr John William Byakagaba	District Planner
	Mr Bernard Nuwamanya	District NAADS Coordinator
	Mr Kyomuhangi Perez	District Entomologist
Buliisa District Officials	Mr Fred Lukumu	LC 5, Chairman
	Mr Agondua Rhoney	Deputy CAO
	Mr Kaahwa Robert Mbabazi	District Production Officer
Kibaale District Officials	Mr Vincent Kyaligonza	Ag CAO,
	Mr Ssentayi Peter	Production Officer

<b>INSTITUTION/MINISTRY</b>	<b>NAME</b>	<b>TITLE</b>
	Mr Cornelius Kasaija	District Commercial Officer
	Mr Tusabomwe George W.	District Planner
<b>IOCs</b>		
CNOOC	Mr. David Byaruhanga	Community Relations Manager, Corporate Affairs Department
	Ms. Jessica Kyeyune	Local Content Manager
	Cheng Jain	Logistics Manager
Total E & P Uganda	Mr. Loic Laurandel	General Manager
	Ms. Ahlem Friga-Noy	Corporate Affairs Manager
	Mr. Vincent Nicolini	Contracts and Purchasing Manager
	Ms. Marion Adengi Muyobo	Head of Stakeholder Engagement
	Mr. Tony Okao Otoa	Public Affairs Coordinator
	Mr. Pierluigi Luppi	Base Superintendant
	Mr. Olivier Michel	
	Mr. Godfrey Byekwaso	
Tullow Oil	Mr. Jimmy Mugerwa	General Manager & Director
	Mr. Nelson Ofwono	National Content Manager
<b>Local Companies and Associations</b>		
Association of Uganda Oil and Gas Service Providers	Mr. Emmanuel Mugarura	Secretariat
AXIS International LTD	Mr. Ashaba Aggrey	Business Development and Strategy Consultant
Eagle Air	Ms. Robinah Bwire	In charge Charters
Richflo Lift Services LTD	Mr. Richard Magezi	Managing Director
ICON Industrial Services (U) Ltd.	Mr. Iman Abdul Hamid Al- Jabry	
ICON Industrial Services (U) Ltd.	Mr. Godfrey Kirumira Kalule	Chairman

INSTITUTION/MINISTRY	NAME	TITLE
Threeways Shipping Services Group LTD	Mr. Jeff Bihamaiso Baitwa	Group Managing Director
Hoima District Farmers Association (HODFA)	Mr. Moses Byenkya	Ag. Coordinator
Traidlinks	Mr. John Bosco Kalule	Agri-Supply Project Manager
	Mr. Roy Magoba	Enterprise Development Project Manager
PSFU	Mr. Gideon Badagawa	Executive Director
	Mr. Ogwal Moses Goli	Director, Policy Advocacy
UGACHICK	Mr. Aga Sekalala Sr	Chairman
JESA Dairy Farm	Mr. Geoffrey Mulwana	CEO
Uganda Fish Processors & Exporters Association	Mr. Ovia Katiiti	CEO
Supreme Catering Services	Mr. Franklin Odongo	Camp Manager
<b>Tourism Stakeholders</b>		
Safari Investments, Ltd	Mr. Moses Wafula Mapesa	Director
Great Safaris, Ltd	Mr. Wekesa Amos Masaba	Managing Director
Chobe Safari Lodge	Ms. Kim Allen	General Manager
Red Chilli Camp	Mr. Simon Teede	Manager
Murchison River Lodge	Ms. Liz Wright	Manager
Uganda Travel Bureau	Mr. Deo Lubega	Tours Consultant
Pearl of Africa Tours and Travel Ltd	Ms. Kelley Mac Tavish	Executive Director
Crystal Safaris Ltd.	Ms. Christine Mwinike	Managing Director
Global Interlink Travel Services Ltd	Mr. Mohit Advani	Managing Director
<b>Financial Institutions</b>		
Stanbic Bank	Mr. Philip Odera	Chief Executive

<b>INSTITUTION/MINISTRY</b>	<b>NAME</b>	<b>TITLE</b>
Opportunity Bank (Hoima Branch)	Ms. Josephine Nyakato	Manager
Standard Chartered Bank	Mr. Herman Kasekende	Managing Director/CEO
Uganda Development Bank	Mr. Daniel Kaggwa	Director Finance
	Mr. Patrick Oketa	Director Development Finance
Centenary Bank (Hoima Branch)	Mr. Johnson Galimaka	Manager
<b>International Donors</b>		
Royal Norwegian Embassy	Ms. Elin Jensen	First Secretary
	Mr. Samuel Kajoba	Senior Advisor
EU	Ms. Celine Prud'homme Madsen	Attache, Programme Officer Trade/Private Sector Development
	Mr. Christian Raitz Von Frentz	Program Officer, Governance and Accountability