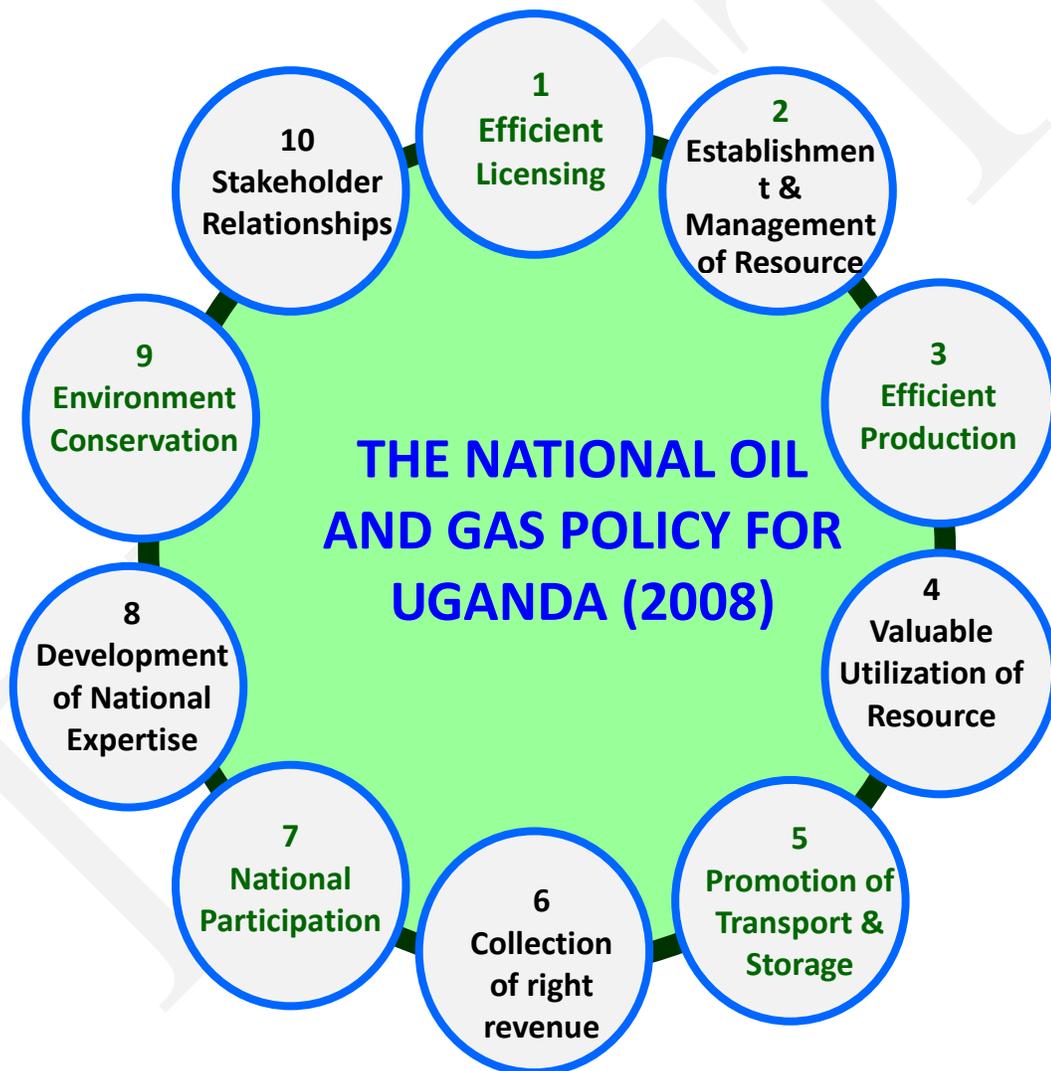




REPUBLIC OF UGANDA

MINISTRY OF ENERGY AND MINERAL DEVELOPMENT

PROGRESS OF IMPLEMENTATION OF THE NATIONAL OIL AND GAS POLICY FOR UGANDA



FEBRUARY 2017

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INTRODUCTION

1. The National Oil and Gas Policy for Uganda (NOGP), which was approved during 2008, is the key document guiding the development of the country's oil and gas sector. The Ministry of Energy and Mineral Development (MEMD) presents this progress of implementation of NOGP to keep all stakeholders informed on developments in the country's oil and gas sector, and to share the progress being made with regard to each of the ten objectives of the National Oil and Gas Policy to date.

CURRENT STATUS OF THE SECTOR

2. Uganda's oil and gas sector has transitioned from the exploration and appraisal phase to the development phase in preparation for sustainable production of the petroleum resources that have been discovered in the country.
3. The oil companies currently licensed in the country to undertake petroleum exploration, development and production are: - China National Offshore Oil Corporation Uganda Limited (CNOOC (U) Ltd), Total E&P Uganda B.V and Tullow Uganda Operations Pty Limited.
4. Other significant investors are expected to join the sector when;
 - a) the selection of a lead investor for the development of a refinery and its attendant infrastructure in the country is concluded,
 - b) new licensees come into the country at the conclusion of the ongoing competitive licensing round, and
 - c) the subcontractors and service providers who will come into the country to support the development phase for the oil fields, development of the refinery and construction of pipelines and other facilities.



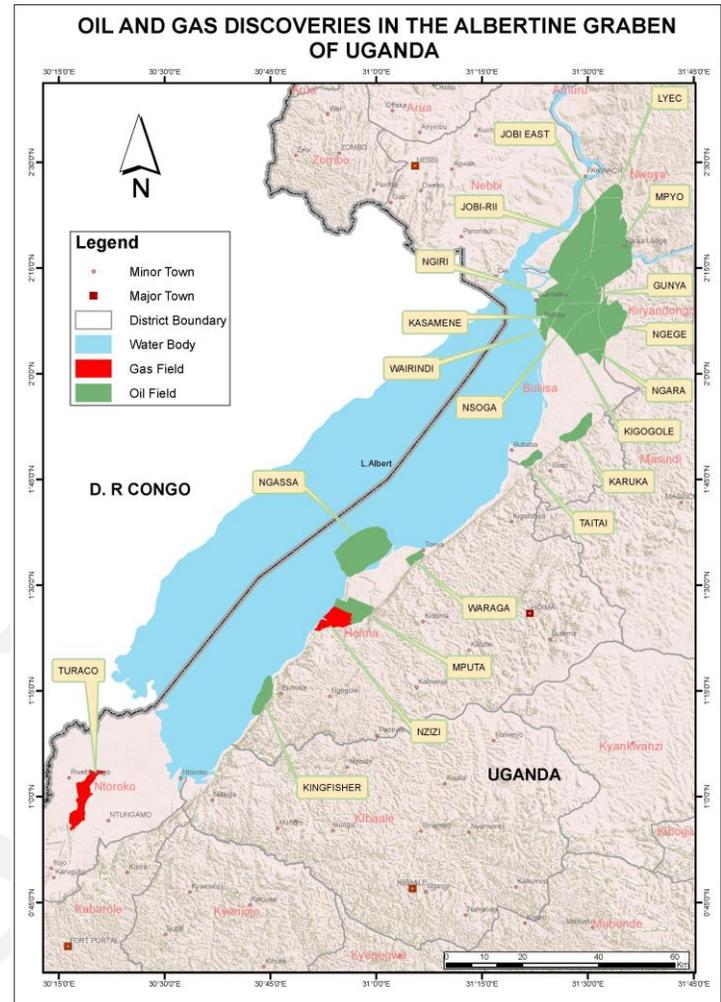
The ZPEB-7001 rig during drilling of Kingfisher-4 well in Buhuka, Kyangwali Subcounty, Hoima District during 2014

Well Data Acquisition

- One hundred and twenty (121) exploration and appraisal wells have been drilled in the country with one hundred and six (106) of these wells encountering oil and/or gas which, is an unprecedented drilling success rate of over 85%.

Confirmation of Resources

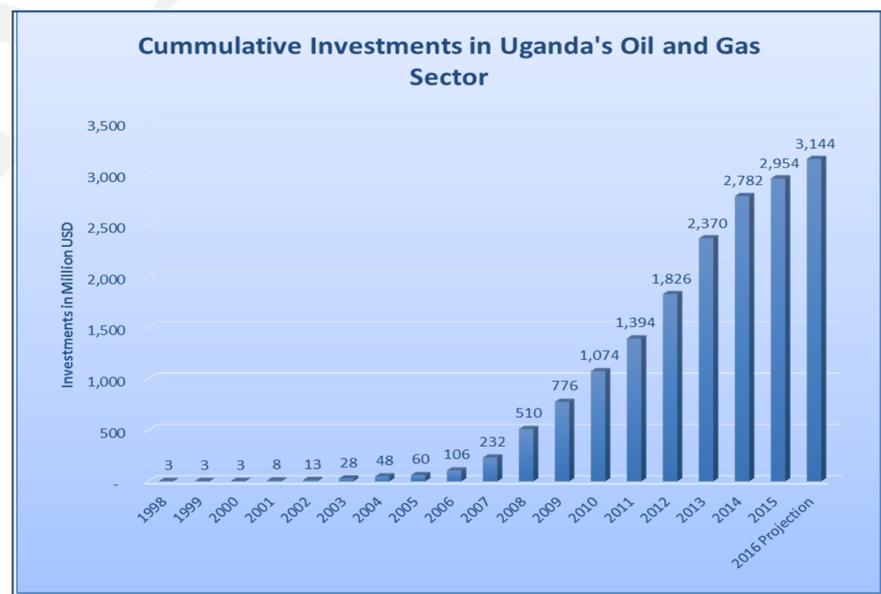
- The above mentioned work has led to the discovery of twenty one (21) oil and/ or gas fields in the country's Albertine Graben. Appraisal of these discoveries has established that petroleum resources in these fields are now estimated at over 6.5 billion barrels of oil equivalent in place with 1.4 – 1.7 billion barrels of these resources estimated to be recoverable.



Map showing oil and gas discoveries in the Albertine Graben

Investment

- Cumulative foreign direct investment in petroleum exploration in the country since 1998 was estimated to be over USD 3 billion at the end of 2016. Investment in the petroleum sector is expected to increase significantly as the country enters the development, and subsequently the production, transportation and refining phases of the petroleum value chain.



Legal Framework

8. Following a wide consultative process, two new laws were enacted during 2013 to update the legal framework for the sector. These are; the Petroleum (Exploration, Development and Production) Act 2013 and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013. Regulations to operationalize these laws have been put in place, and these are;
 - a) The Petroleum (Exploration, Development and Production) Regulations 2015.
 - b) The Petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations 2016.
 - c) The Petroleum (Exploration, Development and Production) (National Content) Regulations 2016.
 - d) The Petroleum (Exploration, Development and Production) (Metering) Regulations 2016.
 - e) The Petroleum (Refining, Conversion, Transmission and Midstream Storage) Regulations 2016.
 - f) The Petroleum (Refining, Conversion, Transmission and Midstream Storage) (National Content) Regulations, 2016.
 - g) The Petroleum (Refining, Conversion, Transmission and Midstream Storage) (Health, Safety and Environment) Regulations, 2016.

9. In addition, the Public Finance Act 2015 was enacted during March 2015 and provides for among others the management of revenues accruing from petroleum activities. These pieces of legislation together with other relevant laws and statutes like those on Environment, Wildlife, Water, Land and Income Tax, are used in regulating the country's petroleum sector.

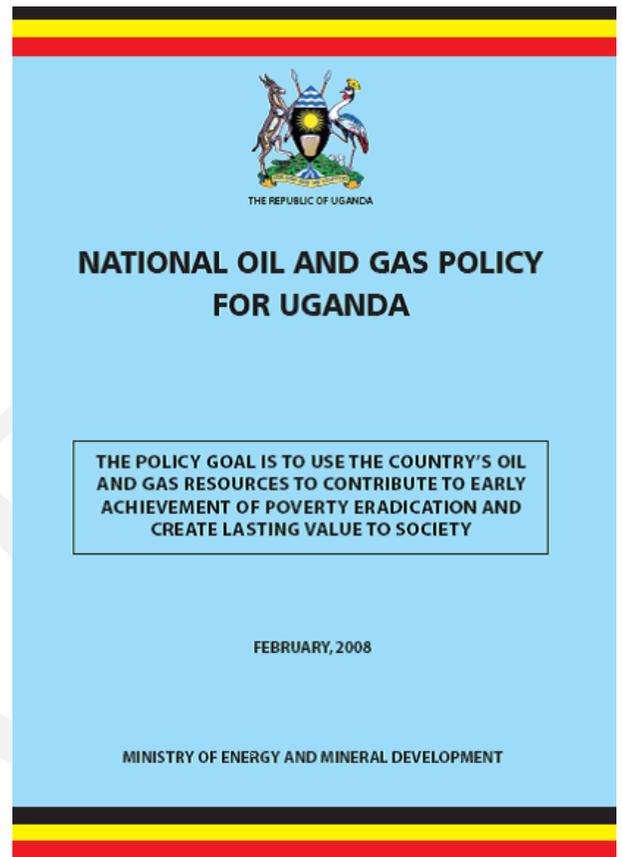
THE NATIONAL OIL AND GAS POLICY FOR UGANDA

10. The National Oil and Gas Policy for Uganda (NOGP) which was formulated through an extensive consultative process and approved in 2008 is the key framework guiding the development of the oil and gas sector in the country. The NOGP together with its popular version which has been translated into eleven languages can be accessed at www.petroleum.go.ug and www.energyandminerals.go.ug.

11. The Policy was developed to comprehensively address issues of exploration, development, production, utilization and commercialisation of the country's petroleum resources following the confirmation of commercial petroleum resources in the country in 2006.

12. The discovery of petroleum in the country created excellent opportunities for the accelerated development of the economy, but also brought along key issues such as anxiety and high expectations by the population, the need to ensure national participation in the development of the sector, the need to develop the sector with due regard to the country's environment and biodiversity, concerns on management of oil revenues, the need to put in place appropriate regulatory and institutional frameworks for the sector and decommissioning of installations, among others.

13. The goal of the National Oil and Gas Policy for Uganda is to **“Use the Country's Oil and Gas Resources to Contribute to Early Achievement of Poverty Eradication and Create Lasting Value to Society”**. The policy has ten objectives for developing and utilizing the country's oil and gas resources and describes the strategies and key actions which need to be taken to maximize the opportunities and address the challenges in the sector.



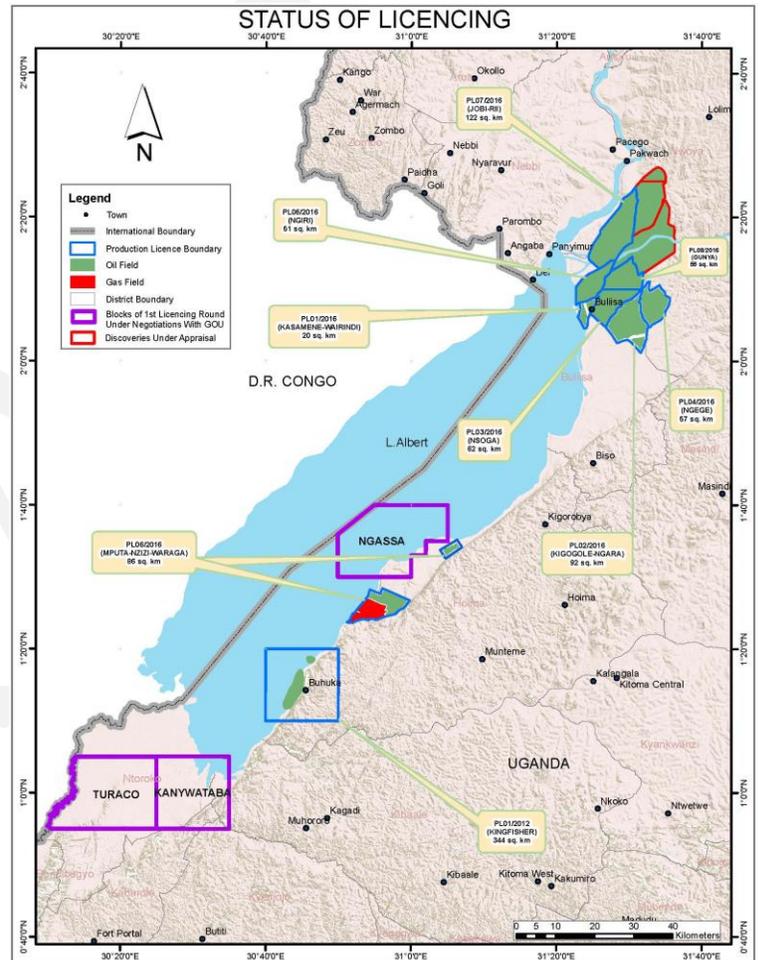
POLICY IMPLEMENTATION

14. Following the approval of NOGP in 2008, Government has continued to implement the Policy in line with its (10) policy objectives. The key achievements made in implementing each of the ten objectives is presented below:

Objective 1: Ensure efficiency in licensing areas with the potential for oil and gas production in the country

15. The confirmation of commercial resources of petroleum in the Albertine Graben led to the significant lowering of the country's exploration risk, hence a need to update the regulatory framework for the sector to provide for, among other things, competitive licensing rounds.

16. Formulation of legislation for the sector commenced in 2009 after putting in place of the NOGP. The Petroleum (Exploration, Development and Production) Act 2013 which repealed the Petroleum (Exploration and Production) Act of 1985, was passed by Parliament during December 2012 and it became effective on 5th April 2013 upon Presidential assent.



17. In line with the Act, the first competitive licensing round for some of the areas which are currently not licensed was announced by the Minister for Energy and Mineral Development during February 2015. This licensing round covered six areas in the Albertine Graben which have good data coverage. The six blocks are:- Ngassa (410 Km²) in Hoima District, Taitai & Karuka (565 Km²) in Buliisa District,

Ngaji (895 Km²) in Rukungiri & Kanungu Districts, Mvule (344 Km²) in Moyo and Yumbe Districts together with Turaco (425 Km²) and Kanywataba (344 Km²) in Ntoroko District

18. 16 out of 19 applicants that responded to the notice of request for qualification for the first licensing round for petroleum exploration, development and production in Uganda were pre-qualified to participate in the Bidding Stage. Seven of the applicants submitted proposals during the bidding stage, and Government is negotiating five Production Sharing Agreements with three of the bidders, namely; Oranto Petroleum International Ltd, Waltersmith Petroman Oil Ltd and Armour Energy.



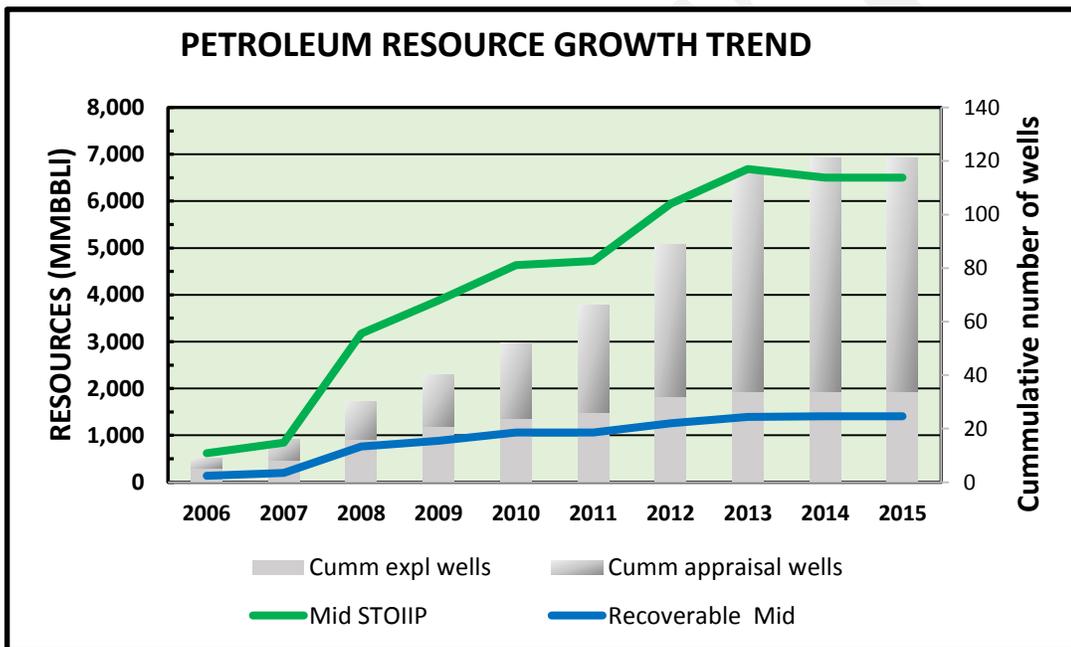
Mr. Nurudin Njabire, Geologist with the Ministry interacts with a delegates at the promotional roadshow for the first licensing round. The roadshow was held in London, UK during June 2015.

19. About 10% of the Albertine Graben is currently licensed and over 14,000 Sq. km of acreage with high potential for petroleum production remains unlicensed in the Albertine Graben. This acreage includes over 10,000 sq. km which became available through relinquishment or surrender of acreage by the licensed oil companies and expiry of exploration licenses as provided for in the legislation and the Production Sharing Agreements (PSAs) entered into between Government and the oil companies. Another over 10,000 sq. km of acreage with potential for petroleum production exists outside of the Albertine Graben.

20. The Ministry of Energy and Mineral Development is planning for geophysical surveys in the above areas of the country which have potential for petroleum production but with little or no data acquired in them to date. These areas include parts of the Albertine Graben together with other sedimentary basins in the country. Licensing for those areas is expected to be undertaken in future licensing rounds.

Objective 2: Establish and efficiently manage the country's oil and gas resource potential

21. The exploration and appraisal of the oil and gas discoveries in the Albertine Graben has led to an increase in the country's petroleum resource base from an estimated 300 million barrels (MMBBL) to 840 million barrels of Stock Tank Oil Initially in Place (STOIIP), when the policy was approved in February 2008, to the current estimate of 6.5 billion barrels, of which 1.4 billion (BBBL) is estimated as recoverable. In addition, gas resources are currently estimated at 500 Billion standard cubic feet (BCF). The Ministry of Energy and Mineral Development uses the Petroleum Resources Management Systems (PRMS) to estimate and report the country's petroleum resources.



22. A new Institutional framework for the sector which separates the three aspects of policy setting, regulation of the industry and execution of the commercial interests of the state respectively has been put in place.

23. In line with Section 9 of the PEDP Act 2013, the Petroleum Authority of Uganda (PAU) has been put in place to regulate the sector. The Uganda National Oil Company (UNOC), provided for under section 42 of the PEDP Act 2013, was incorporated under the Companies Act, 2012 to manage Government's commercial interests (including managing the State Participation provided for in the respective Production Sharing Agreements) in the sector.

24. Members of the Board of Directors for PAU and UNOC were appointed by His Excellency the President, approved by Parliament, and inaugurated in October 2015. The Executive Director for PAU and the Chief Executive Officer together with some top management were recruited during 2016. Recruitment of staff for other key positions is being taken forward, and the two institutions are operational and undertaking their respective roles.



Members of the PAU and UNOC Board of Directors together with MEMD staff following the inauguration by His Excellency, President Yoweri Museveni during October 2015

25. The Ministry has also been restructured and a Directorate of Petroleum created to better support policy setting and implementation as well as the licensing roles of the Ministry. The Directorate has three departments, namely Petroleum Exploration, Development and Production Department (PEDPD – Upstream), Midstream Petroleum Department (MPD) and the Petroleum Supplies Department (MPD).

Objective 3: Efficiently produce the country's oil and gas resources

26. Commercial production of petroleum in the country has not yet commenced. Appraisal drilling, three dimensional (3D) seismic surveys and extended well testing have been undertaken as part of the effort to appraise the oil and gas discoveries made in the country to date. This appraisal work provides a better understanding of the volumes of oil and gas in each of the discoveries made and enables identification of the most efficient methods of producing these volumes.

27. The licensed oil companies use the data and information acquired during appraisal to prepare Field Development Plans (FDPs) and Petroleum Reservoir Reports (PRRs) which are submitted to Government as part of the application for production licenses.

28. Of the 21 discoveries, 16 have been adequately appraised and 14 of these approved for development. On 30th August 2016, eight Production Licenses were awarded over 13 discoveries. These are; Mputa-Nzizi-Waraga, Kasamene-Wahrindi, Kigogole-Ngara, Nsoga and Ngege fields in Exploration Area 2 operated by Tullow Uganda Operations Pty, and Gunya, Ngiri and Jobi-Rii in Exploration Area 1 operated by Total E&P Uganda. The Kingfisher Production license was awarded to CNOOC in 2012 and development studies are ongoing.



Caroil rig 2 at Jobi-East-6/6A in Nwoya district during drilling and well testing operations.

29. Production license applications for Mpyo and Jobi-East discoveries in EA 1 will be awarded after final review of their field development plans and petroleum reservoir reports. Appraisal of the Lyece field in EA 1A will continue during 2017.

30. Granting the above production licenses marks the country's entry into the development phase of the petroleum value chain. CNOOC (U) Ltd has commenced pre-development work on the



Eng. Irene Muloni, Minister of Energy and Mineral Development awards Production Licenses to CNOOC, Tullow and Total during August 2016

Kingfisher oil field starting with construction of infrastructure to support the operations. This includes the construction of a 10 kilometer all weather road from Ikamiro Village, across the escarpment to Buhuka in Kyangwali Sub county, Hoima district where the Kingfisher oil field is located, which was completed in February 2016.

31. Other pre-development activities being undertaken include; Development of a Land Acquisition and Resettlement Framework (LARF), Studies on Excess Associated Gas Utilization, Front End Engineering and Design (FEED) for facilities and Enhanced Oil Recovery (EOR) through Polymer Flooding, Environment and Social Impact Assessments, Biodiversity studies, Resettlement Action Planning and other Geotechnical and geological studies among others..



Land Acquisition and Resettlement Framework disclosure meeting in Uduk village, Buliisa District during November 2016

Objective 4: Promote valuable utilisation of the country's oil and gas resources

32. The policy recommends refining the discovered oil in-country to supply the national and regional petroleum product demand before consideration of exportation. In order to facilitate achievement of this policy objective, the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013 was enacted by Parliament during February 2013 and became effective during July 2013 following Presidential assent. This Act provides for among others, the legal foundation for the development of a refinery in Uganda and other midstream infrastructure like pipelines and storage facilities.

33. Following enactment of the Midstream Act, the Ministry together with the other arms of Government put in place General Licensing, National Content and Health, Safety and Environment (HSE) regulations to operationalize this Act.

34. In addition, the Ministry together with the Uganda National Bureau of Standards (UNBS) through Technical Committee 16 have developed standards and codes for the operation of petroleum infrastructure in the country. 192 standards identified as required for both upstream and midstream petroleum operations have been formulated through a consultative process involving both private and public sector institutions, and have been approved by the National Council for Standards. The Standards were launched in October 2016.



Mr. John Bosco Habumugisha, Assistant Commissioner, Pipelines Development and Ms. Patricia Ejalu UNBS Deputy Executive Director launch the petroleum standards in Kampala

35. Regarding the development of a refinery in Uganda, the East African Community (EAC) Refineries Strategy of 2008 recommended, among other things, the development of a second refinery in East Africa to be developed in Uganda. The other refinery being that of Mombasa which has since been shut down.

36. Government subsequently contracted Foster Wheeler Energy Limited from the United Kingdom during 2009 to carry out a feasibility study on the development of a refinery in Uganda. This study was undertaken during 2010/2011 and it defined the key aspects of developing a refinery in the country such as the size and configuration of the refinery, its location and financing as well as the market for the petroleum products to be produced from the refinery. The study also confirmed the economic viability of refining petroleum in the country and its recommendations were adopted by Government during 2011.

37. The development of a 60,000 barrel per day refinery to be located at Kabaale in Buseruka Sub-county, Hoima District, is now being taken forward by Government. Acquisition of the land required for the refinery commenced in 2012 with the preparation of a Resettlement Action Plan (RAP) for project affected persons (PAPs) through a consultative process. The RAP was completed during 2012 and as part of its implementation, payment of compensation to the PAPs who opted for cash commenced in December 2013. By December 2016, 2,625 Project Affected Persons (PAPs) of the 2,670 who opted for cash compensation have been compensated, accounting for 98.3%. The remaining 1.7% includes the PAPs who have never turned up for verification and disclosure. It also includes those whose grievances are still being addressed and some who are in court disputing the compensation rates that were used.



Minister of State for Energy Eng. Simon D'Ujanga speaking to Project Affected Persons (PAPs) during a sensitization meeting on land acquisition for the refinery development.

38. In addition, 533 acres of land was acquired in Kyakabooga Parish, Buseruka Sub-county for resettlement of the PAPs who opted for relocation. Physical planning for this land was undertaken and construction of resettlement houses and other social amenities for those who opted for relocation is almost complete. The infrastructure includes: construction of 46 resettlement houses, construction of Nyahaira and Kyapaloni Primary Schools, rehabilitation of Buseruka Primary School, rehabilitation and expansion of Buseruka and Kabaale health centres IVs. It is expected that the houses will be handed over to the PAPs during the first quarter of 2017.



Some of the structures in Kyakaboga, Buseruka Sub-county for resettlement of PAPs. Left are houses, right is ongoing construction of Nyahaira primary school (right) and Buseruka health centre IV (below)



39. In preparation to develop the refinery, Government embarked on a competitive process of selection of a lead investor to lead the construction and operation of the refinery in 2013. The process involved issuance of a Request for Qualification (RFQ) that was followed by issuance of a Request for Proposals to six firms/ consortia that were short-listed from the RFQ stage. Four of these submitted detailed proposals and a consortium led by RT Global Resources from Russia was selected as the preferred bidder to be the lead investor for Uganda's refinery project during February 2015. However, negotiations of the Project Agreements between Government and the RT Global Resources led consortium were terminated during June 2016 due to additional requests made by the Consortium that were not agreeable to Government. The refinery development project is now being restructured in order to conclude the selection of a developer during 2017.

40. The Uganda Refining Holding Company that will hold Government's interest in the Refinery project was incorporated as a subsidiary of the Uganda National Oil Company, and recruitment of staff is ongoing, starting with the General Manager who was appointed in January 2017.

41. In addition to development of the refinery, Government agreed to a revised commercialization plan which provides for exporting some of the crude oil produced in the country. In this regard, a Memorandum of Understanding (MoU) between Government and the Licensed Oil Companies which provides for the commercialization of the discovered oil and gas resources was concluded during 2014. The MoU provides for use of the petroleum resources discovered in the country for power generation, supply of Crude Oil to the refinery to be developed in Uganda by Government and export of Crude Oil through an export pipeline or any other viable options to be developed by the Industry.
42. A Master plan for the development of the industrial park which will have an international airport, refinery, crude oil and products storage, transmission hub, logistics warehousing, offices, Petrochemical industries and associated facilities among others, is being developed and will be completed in 2017. The Master Plan will provide for development of utilities, infrastructure and common services. The industrial park will be located in the 29 sq.km of land acquired in Kabaale, Hoima district.

Objective 5: Promote the development of suitable transport and storage solutions which give good value to the country's oil and gas resources.

43. A study for the development of **Pipelines and Storage Facilities of Petroleum Commodities** (crude oil and gas) from the fields to the refinery was concluded during March 2012. Planning for the transportation of crude oil from the oil fields to the refinery is ongoing. The development of these crude oil feeder pipelines from central processing facilities to the delivery point near refinery will be developed as part of upstream development.
44. A Front End Engineering Design (FEED) study for these feeder pipelines (Buliisa – Kabaale, Hoima and Kingfisher – Kabaale, Hoima) commenced in December 2016 and is expected to be completed within 12 months. Development of a Resettlement Action Plan (RAP) and Environment and Social Impact Assessment (ESIA) studies for these feeder pipelines are planned to commence during the first quarter of 2017.

45. In line with the MoU on commercialisation of the discovered petroleum resources in Uganda, feasibility studies on the development of a **Crude Oil Export Pipeline** from the Albertine Graben in Uganda to the East African Coast, were undertaken with a view to selecting the least cost route for transporting Uganda's crude oil to the coast. The Hoima (Uganda) – Tanga (Tanzania) route was selected as more secure, at a cheaper cost and therefore, a lower tariff.
46. A 1445km long, 24-inch diameter, heated East Africa Crude Oil Pipeline (EACOP), is being developed to transport crude oil from Uganda to Tanga port in Tanzania. The development of this pipeline is being led by the licensed upstream oil companies in Uganda, with participating interests by the Governments of Uganda and Tanzania.
47. Project development committees have been set up including a Pipeline Project Team led by the private sector in carrying out daily activities of the Project. This is in addition to a multidisciplinary Joint Project Development Committee (JPDC) spearheading the implementation of the project, and a Project Steering Committee (PSC) of Permanent Secretaries to review progress and report to the sector Ministers. Negotiation of an Intergovernmental Agreement (IGA) with Tanzania Government is ongoing and is expected to be concluded in the first quarter of 2017.
48. Front End Engineering Design (FEED) study for the EACOP commenced in December 2016 and is expected to be completed within 12 months. Topographic survey and aerial capture for the entire pipeline route using LIDAR technology has been completed and processing of the data acquired is ongoing. RAP and ESIA studies are also planned to commence in the first quarter of 2017.



Representatives from Governments of Uganda and Tanzania, and the upstream licensees in Uganda during the Launch of the FEED for the EACOP in Kampala during January 2017

49. A study covering the **Distribution and Storage Facilities of Petroleum Products** (gasoline, diesel, kerosene, jet fuel etc.) from the refinery to different national and regional markets was concluded during November 2012. A 211 km pipeline to transport refined petroleum from the refinery in Kabaale, Hoima to a distribution center in Buloba, Northwest of Kampala is planned to be developed as part of the refinery project.
50. The process of acquiring the Right of Way for this pipeline is ongoing, with the detailed pipeline routing study and the Environmental Baseline survey study completed. The Resettlement Action Plan (RAP) study for this pipeline is ongoing and will be followed by land acquisition once the valuation surveys are completed and compensation values have been approved by the Chief Government Valuer. Plans to extend this pipeline from Kampala to Kigali, Rwanda and Eldoret, Kenya are also under consideration.
51. The Ministry of Energy and Mineral Development concluded the preparation of a National Strategy and Plan for petroleum Transportation and Storage Facilities in Uganda which is due for submission to Cabinet during 2017. To ensure effective implementation of the Strategy, an Implementation and Monitoring Framework has also been developed.
52. Construction of the other infrastructure, specifically upgrade of the road and other transportation networks required to support the development of the oil and gas sector is also ongoing. In this

regard, the Hoima – Buseruka – Kaiso Tonya Road whose construction commenced in 2013 was completed and handed over to Government in December 2014. In addition, a 10km road from Ikamiro Village across the escarpment to Buhuka in Kyangwali sub-county, Hoima district, where the Kingfisher field is located was constructed by CNOOC, completed and handed over to government in 2015.



Rt. Hon. Prime Minister, Dr. Ruhakana Rugunda, commissions the road to Kingfisher field in Hoima District during March 2016

53. Designing of the Kyenjojo-Kagadi-Hoima-Masindi as well as that for Hoima – Biso – Wanseko (Buliisa) Road were completed by the Ministry of Works and Transport and procurement of contractors for these two roads is in final stages. The construction of the Kabwoya-Buhuka, Karugutu-Ntoroko and Buliisa-Paraa roads is also being taken forward by the Uganda National Roads Authority (UNRA).

Objective 6: Ensure collection of the right revenues and use them to create lasting value for the entire nation.

54. The Ministry of Finance, Planning and Economic Development is taking lead in implementation of this policy objective. The Ministry formulated an Oil and Gas Revenue Management Policy that was adopted in February 2012. The Ministry formulated the Public Finance Management Act, 2015 which provides for among others, the management of revenues accruing from petroleum resources.

55. As of 2016, Government had received over UGX 2.5 trillion as Non-tax revenues, Capital Gains Tax, and other tax obligations from operations in the sector. Government's successful defense in the Permanent Court of Arbitration in February 2015, of the assessment of Capital Gains Tax on the sale of Heritage assets and an out of court settlement of the Capital Gains Tax dispute with Tullow Oil during June 2015 regarding its farm-down to CNOOC and Total in 2012 are testimony to the efforts Government is taking to ensure collection of the right revenues in the oil and gas sector.



H.E President Yoweri Museveni commissions the Hoima-Buseruka-Kaiso Tonya Road during February 2015. Oil revenues will be utilised to support development of infrastructure to boost other productive sectors of the Economy such as Agriculture, Manufacturing and Tourism, among others

Objective 7: Ensure optimum national participation in oil and gas activities.

56. A study to establish the opportunities and challenges for the participation of Ugandans in the oil and gas sector was commissioned in 2010 and completed during 2011. The final study report can be accessed at www.petroleum.go.ug.

57. The key recommendations of the study included; establishment of an institutional framework for the implementation of national content policies for the oil and gas sector, ensuring capacity building in people and in firms (enterprise development), and facilitating participation of Ugandans in the sector with due regard to maintaining the competitiveness of the sector.

58. An institutional framework for National Content development in the petroleum subsector is in place. The Directorate of Petroleum is responsible for Policy formulation related to National Content, together with development, coordination and monitoring of National Content. The Petroleum Authority of Uganda regulates and monitors Licensees and their contractors on their compliance to National Content requirements, whereas the Uganda National Oil Company supports development of National Expertise in petroleum operations.

59. Other recommendations of the study being implemented include supporting the setting up an Association of Oil and Gas Service Providers (AOGAS) in the country and formulation of a National Content Policy. The draft National Content Policy was prepared and stakeholder consultations concluded during 2014/2015. The Policy was submitted to the Cabinet Secretariat and is expected to be approved during 2017.

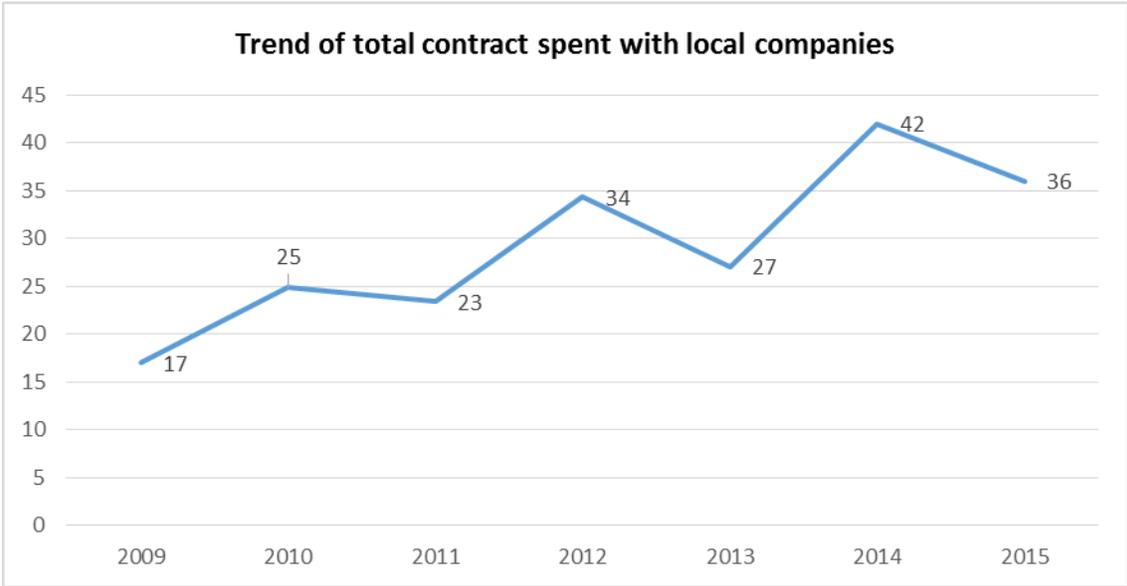
60. In addition, National Content Regulations to operationalize the Upstream and Midstream Acts were issued in June 2016. The regulations cover the provision of goods and services by Ugandan businesses, employment of Ugandans and transfer of technology. The National Content Regulations further provides for fifteen categories of goods and services reserved for Ugandan entrepreneurs. These are Transportation, Security, Foods and beverages, Hotel accommodation and catering, Human resource management, Office supplies, Fuel supply, Land surveying, Clearing and forwarding, Crane hire, Locally available construction materials, Civil works, Environment studies and impact assessments, Communications and information technology services and Waste management, where possible.

61. To date, more than 1000 National Enterprises have provided services such as Logistics, civil works, Environment consulting services, Catering and Hotel Accommodation, cleaning and fumigation services, transportation, communication, Medical services and



MEMD staff with Ugandan employees at a drilling activity in the Albertine Graben during a National Content monitoring visit.

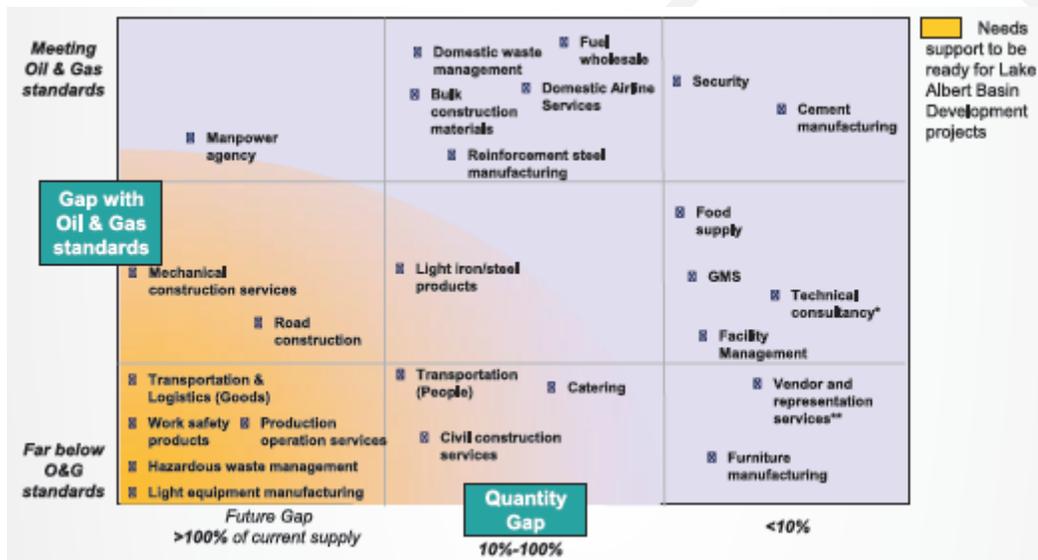
manpower/ recruitment services among others to the Oil and Gas Sector. These companies have also provided employment to over 9,000 Ugandans through indirect and induced employment. There has been growth in percentage contract value spent with Ugandan companies from 17% in 2009 to 42% in 2014 to 36% in 2015



- 62. Other efforts to ensure that Ugandans are actively participating in the sector through direct employment and provision of goods and services to the oil and gas sector include: requiring the licensed oil companies to develop Nationalisation Plans which are approved and monitored by Government. The licensed companies have offered direct employment to a total of over 1,000 Ugandans over the years with more than 70% of staff as Ugandans.
- 63. In preparation for the development of the discovered oil fields, the licensed oil companies undertook an Industrial Baseline Study to assess the projected demand for the planned activities and also assess the ability of the different service sectors in the country to supply the emerging oil and gas sector.
- 64. The study identified the demand and supply gaps in terms of quantity and quality and recommended key actions to be undertaken which are being implemented. These actions include dissemination of information on the requirements such as manpower and services among others, putting in place an Industrial Enterprise Center (IEC) to raise the standards of businesses and entrepreneurs, among

other measures. The design of the IEC was completed and Government is in the final phases of planning for its operationalization.

65. The study also highlighted 25 critical industries with high potential for National Content for Uganda. These are; Civil construction, Site safety and security, Road construction, Bulk construction material, Cement, Catering, Domestic airline services, Facility management, Food supply, Fuel (wholesale), Furniture manufacturing, Generic waste management, General maintenance, Hazardous waste management, Light equipment, Manpower consultancy, Mechanical construction, Production operations, Structural/ flat steel, Technical consulting, Transport & Logistics (Goods), Transportation (People), Vendors, Work safety products and Reinforcement steel manufacturing.



Quality and quantity mapping of the 25 industries with high potential for national content as per the Industrial Baseline Study

66. Government and the Licensees undertook a study for Agriculture Development in the Albertine region. The Agriculture Development Programme once implemented will support local farmers to meet the petroleum subsector standards and requirements. This will ensure sustainable food production for the local production while meeting the needs of the sector. The capacity of farmers will also be developed to enable them export or sell their additional products to other markets outside the region.

67. Government is also working with the licenses to establish a National Suppliers' Database (NSD) as provided for in the Upstream and Midstream National Content regulations, 2016. The NSD will shorten the procurement cycle, reduce costs associated with engaging contractors and provide a standardized approval process in line with the laws and regulations. It will also enable efficiency in monitoring of IOCs spend and submission of timely procurement reports by the licensees. The PAU advertised for applications from potential suppliers for qualification to, and subsequently registration on the NSD. The submissions will be evaluated and the successful applicants will be shortlisted and published on the NSD.

Objective 8: Support the development and maintenance of national skills and expertise.

68. Under this policy objective, the Uganda Petroleum Institute Kigumba (UPIK) which offers diploma and certificate courses in petroleum related studies was established in March 2010 under the Ministry of Education, Science Technology and Sports.

69. The Institute has to date produced 88 Technicians, who undertook 2 years formal training at UPIK and then 6 months of industrial training in Trinidad and Tobago. Admission of 30 students for UPIK's third intake was undertaken in 2014 and Infrastructure for the institute including lecture rooms, dormitories and workshops are being put in place together with the procurement of training equipment for the workshops. The infrastructure will enable the students to undertake most of their industrial training in the country. A 5 year institutional development plan has been put in place to guide the development of the institution.



Some of the infrastructure at UPIK. Left are pre-fabricated structures hosting lecture rooms, dormitories and workshops. Right – are the lecturers' living quarters.

70. At the professional level, a Bachelor's degree in Petroleum Geosciences was introduced at Makerere University in the academic year 2009/2010. MEMD supports this training through facilitating field work in the Albertine Graben, supervising fourth year students' projects and providing internship placement for some of the students.

71. Makerere University also commenced a Master of Science degree in Petroleum Geoscience Programme during 2012. This post graduate programme is being undertaken in collaboration with the University in Bergen, Norway. Private institutions, including Victoria University, Institute of Petroleum Studies/ Quest Energy, OGAS Training East Africa, Q-Sourcing among others have also commenced both short and long term training courses in Petroleum studies in the country. There is, however still a need for the institutions to take on an optimum number of students at both undergraduate and post graduate levels for whom field training opportunities can be made available and the job market can accommodate.



Students from Victoria University pursuing petroleum related courses on a field visit to operations in the Albertine Graben

72. As these capacity building efforts are being taken forward, MEMD, the Ministry of Education, Science, Technology and Sports and with support from the World Bank, have completed a comprehensive study on the skills requirement for the entire petroleum value chain in the country and a Workforce Skills Development Strategy and Plan for the sector was developed. This study documents the skills required for exploration, development, production, refining and transportation at the artisan, technical and professional levels of education. Among other aspects, the study projected that approximately 160,000 direct, indirect and induced jobs will be created by the current planned projects, with most of

the jobs at technician level. Majority of the indirect and induced jobs will be created by other sectors which will benefit from the economic development triggered by the oil and gas sector.

73. As part of implementation of the strategy, an assessment of UPIK and Q-sourcing with support from the World Bank was under taken by OPITO, a leading certification body for the Oil and Gas industry to ascertain the capability to offer OPITO accredited training. The assessment concluded that both institutions have capability to offer OPITO courses at Foundation and Level one OPITO, subject to filling a few gaps that were identified. Both Institutions are currently fillings the gaps that were identified. In addition, two training centers (Q-sourcing and Kinyara Sugar Works) are now approved as City and Guilds Training Centers. City and Guilds is another leading certification body for the oil and gas industry.



Some of the participants in the City and Guilds certified training courses in Electrical installation (left) and welding and fabrication (right) that was held at St. Peter's vocational training school in Hoima, facilitated by Q-sourcing in partnership with Irish Aid

74. Government has also continued to prioritize capacity building of officers from the different institutions taking forward the development of the oil and gas sector in the Country. These include Ministries of Energy and Mineral Development, Finance Planning and Economic Development, Justice and Constitutional Affairs, , Lands, Housing and Urban Development, Water and Environment, National Environment Management Authority, Uganda Wildlife Authority, Uganda Revenue Authority, Office of the Auditor General and Bank of Uganda among others. More than 200 officers of Government have to date been trained at post graduate level specializing in different petroleum disciplines.

75. The oil companies licensed in the country such as Tullow Oil, Total and CNOOC together with their service providers are also have and continue to offer training opportunities for the sector at both the blue collar and professional levels.
76. Government with support from the German Government, Norwegian Agency for Development Cooperation (NORAD), and Department for International Development (DFID) is implementing the Skills for Oil and Gas (SOGA) Project. The project, which is inline the Workforce Skills Development Strategy and Plan (WSDSP), will train over 2000 Ugandans at different levels, and also support a number of Ugandan Training institutions to produce graduates that meet accepted international standards.
77. Other Development partners or projects that are supporting the implementation of the WSDSP are: the World Bank under the Albertine Skills Development Programme, Belgian Technical Cooperation under the implementation of Skilling Uganda Business, Technical and Vocational Education and Training (BTJET) strategy, the Japan Oil, Gas and Metals National Corporation (JOGMEC), Irish Aid and United States Agency for International Development (USAID), among others

Objective 9: Ensure that oil and gas activities are undertaken in a manner that conserves the environment and biodiversity

78. The Ministry of Water and Environment together with the National Environment Management Authority (NEMA) continue to play a leading role in the implementation of this policy objective. The Albertine Graben, where oil and gas activities are taking place in Uganda, is recognized as one of the most bio-diverse rich areas in the world. Environment and Social Impact Assessments (ESIAs) are conducted prior to undertaking each activity in the oil and gas sector as required by the National Environment Act Cap 153 and National Environment (Environment Impact Assessment) Regulations, 1998. During the EIA process, consultations are undertaken with stakeholders at community and national levels to ensure a harmonious interface between petroleum activities, communities, the environment and the biodiversity of the Albertine Graben. In addition, routine Environmental Inspections are carried out by the respective responsible arms of Government to assess compliance

with environmental requirements and to investigate impacts which may not have been predicted at the time when ESIA approval was granted.

79. Drilling waste was in the past been containerized and monitored at designated sites prior to existence waste management facilities in the country. In 2014, NEMA authorized six firms to set up petroleum waste treatment and disposal facilities in the country. Three of these firms, Enviroserve, White Nile and Luwero Industries have constructed facilities in Hoima and Nakasongola respectively and are now licensed to operate these facilities. Construction of the Enviroserve facility at Nyamasoga commenced during 2014 and the facility was officially launched during April 2015. Containerized waste from the designated sites has now been transferred to the waste treatment plants for disposal.



Left - Waste treatment facilities at the Enviroserve waste management Facility in Nyamasoga in Buseruka Sub-county, Hoima District.
Right - A solid waste engineered land fill at the facility.

82. In addition, the following environmental and biodiversity tools have been developed as part of the efforts the effort to ensure appropriate environment management for the oil and gas sector in the country,

- An Environment Sensitivity Atlas (ESA) for the Albertine Graben was developed in 2009 and updated in 2011. The ESA describes the different levels of sensitivity in the different parts of the Graben with a view to guiding the oil and gas activities in the area.
- An Environment Monitoring Plan (2012 to 2017) for the Albertine Graben that defines the key monitoring indicators together with an enforcement and compliance monitoring strategy have been put in place and are being implemented.

- Guidelines for operation of Oil Companies in Protected Areas have also been developed.
- A Strategic Environment Assessment (SEA) for Oil and Gas Activities in the entire Albertine Graben was prepared and approved by Government in July 2015. The SEA will be used to ensure that environmental concerns are captured in Government's PPPs (plans, programmes & policies).
- A National Oil Spill Contingency Plan is under development for use in the (unlikely) event of an oil spill.
- Management plans for the protected areas within the Albertine Graben such as Murchison Falls National Park, Queen Elizabeth National Park and Budongo Forest have been updated to provide for the ongoing and planned oil and gas activities within these areas of high biodiversity.

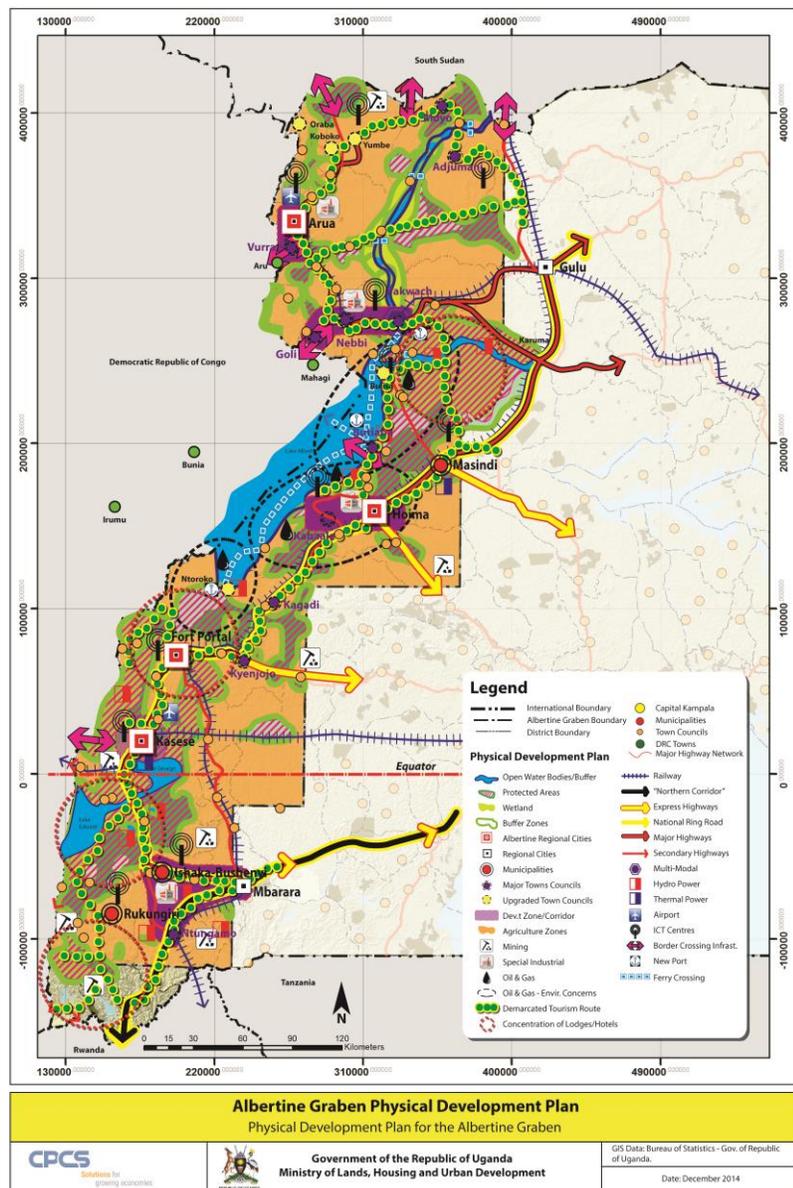
83. A multi-institutional environment monitoring team led by the National Environment Management Authority (NEMA) and composed of the Uganda Wildlife Authority (UWA), Fisheries Resources Department, National Forestry Authority, Directorates of Environmental Affairs and Water Resources Management in the Ministry of Water and Environment, District Local Governments, Ministry of Lands, Housing and Urban Development, the Petroleum Authority of Uganda and Directorate of Petroleum is in place to monitor the interface between the environment and petroleum activities.

84. The monitoring framework includes representatives of these institutions based in the field, regular visits to field operations by senior level technical officers from these institutions who report to a committee of executives from the same institutions.

85. In addition several laws are being revised to strengthen the existing legislation. These include; National Environmental Act Cap. 153, National Environment (Waste Management) Regulations, Statutory Instrument No. 153-2, National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, Statutory Instrument No. 153-3, National Environment (Noise Standard and Control) Regulations, Statutory Instrument No. 30 of 2003. Other legislation under development include National Air Quality standards (NAQS), Petroleum (waste management) regulations and Oil Spills Regulations and Guidelines.

86. Land use planning for the Albertine Graben and its surrounding areas as recommended by the Policy commenced when the Graben was declared a special planning area in 2012. Physical planning for specific towns in the operation areas, namely Sebagoro in Hoima District together with Butiaba and Buliisa in Buliisa district that will be impacted by the developments has been undertaken together with planning for the areas around the refinery development area (Kabaale, Kaseeta, Kidoma, Nyamasoga, Buseruka, Kigaaga, Buseruka and Kyakaboga resettlement area).

87. The Ministry of Lands, Housing and Urban Development has prepared a regional physical development plan for the entire Albertine Graben and planning for several growth centres in the region is ongoing.



Map showing the physical development plan for the Albertine Graben

Objective 10: To ensure mutually beneficial relationships between all stakeholders in the development of a desirable oil and gas sector for the country.

88. Development of the oil and gas sector in Uganda is being taken forward in a manner that recognizes the roles of different stakeholders and seeks to ensure their participation in the development of the sector.

89. Extensive consultations were undertaken during formulation of the National Oil and Gas Policy and in the preparation of the new petroleum legislation that became effective subsequently. The consultations on the new laws were enhanced by the additional consultations which Parliament undertook both in country and overseas in preparation for the debate on the Bills. Consultations with stakeholders continue to be undertaken during studies relating to the Upstream and Midstream Infrastructure Development, National Participation and Environment Management, among others. The consultations undertaken while putting in place these frameworks do not only enhance the quality of the frameworks but also enhance ownership of the outcome of the frameworks by the respective stakeholders.
90. In addition to the consultative process, a National Communication Strategy for the Oil and Gas Sector was developed and put in place during 2011 to bridge the communication gap between the oil and gas industry and the general public. A public information and education effort to enable Ugandans achieve a better understanding of the developments and opportunities in the sector and how they (Ugandans) can participate is also on-going.
91. This effort has included radio and television programmes across the country, engagements with different stakeholder groups such as the media, civil society, business entrepreneurs, religious and cultural institutions together with leaders and communities in the Albertine Graben as focal stakeholders. In addition, the website www.petroleum.go.ug is regularly updated with recent developments and documents relating to the oil and gas sector.



Community sensitization meeting on land related issues in Ngwedo Subcounty, Buliisa District during April 2015

92. The Policy also recommends regional cooperation in the development of Uganda's oil and gas resources. The Albertine Graben where oil and gas exploration is taking place is shared with the Democratic Republic of Congo. In 1990, the Governments of Uganda and the Democratic Republic of Congo (DRC) (then the Republic of Zaire) signed an "agreement of cooperation for the exploration of hydrocarbons and exploitation of common fields" between the two countries. As a result of the understanding arising out of this Agreement, the Oil companies which have been licensed by the Government of the DRC to undertake oil exploration and development in DRC are using Uganda as a base or as a transit route for movement of their equipment and personnel required for their operations. For example, Soco E&P DRC completed Environment and Bathymetric studies and acquisition of seismic and aeromagnetic data over the Lake Edward basin in DRC using a base camp located at Lake Katwe in Uganda.

93. In addition, the East African Community (EAC) Partner States are also working together to promote investment in the region's emerging oil and gas sector, mainly through the biennial East African Petroleum Conference and Exhibition (EAPCE) and the EAC Sectoral Council on Energy. The 8th EAPCE 2017 will be held in Bujumbura, Burundi from 8th to 10th March 2017.



Rt. Hon Anastase Murekezi, Prime Minister of Rwanda (right) is taken round Uganda's exhibition booth by Eng. Irene Muloni (center) and Hon. Peter Lokeris (2nd right) during the 7th East African Petroleum Conference and Exhibition that was held in Kigali, Rwanda during March 2015.

94. Government is continuing to establish bilateral linkages with other countries where oil and gas exploration, development and production is taking place, including Australia, India, Ghana, Malaysia, Nigeria, Norway, Trinidad and Tobago and USA, among others. This is with a view to provide opportunities to share experiences and best practices for the country's oil and gas sector.

CONCLUSION

95. The Government of Uganda is taking forward the development of the oil and gas sector in the country through implementation of the National Oil and Gas Policy. The oil companies that have been licensed in the country are continuing to invest in the development of this sector. The exploration success in the country has led to the transformation of the Albertine Graben from being a frontier exploration basin to an internationally recognised and established petroleum province. Planning for the development, production, refining and transportation of petroleum in the country is ongoing.

96. The oil and gas sector which is a newly emerging sector in the country is beginning to provide opportunities and benefits for the people of Uganda, its economy, and the region at large. These opportunities include; new investments, development of infrastructure, enhanced demand for services in the country, employment opportunities; establishment of offices and bases in the country by multinational companies; technology transfer and industrial development, among others.

97. The Ministry of Energy and Mineral Development appreciates the roles played by the respective stakeholders and invites the public to support this new and important sector of development in the country through actively playing their respective roles.

Government of Uganda is committed to effective and efficient development of the Country's Oil and Gas Sector.

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