

THE REPUBLIC OF UGANDA

MINISTRY OF ENERGY AND MINERAL DEVELOPMENT

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

MAY 2019



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Ministry of Energy and Mineral Development

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INTRODUCTION

The National Oil and Gas Policy for Uganda, which was approved on 30th January, 2008, is the key document guiding the development of the country's oil and gas sector. This publication is made as part of the effort by the Ministry of Energy and Mineral Development (MEMD) to keep all stakeholders informed on developments in the country's oil and gas sector and to share the progress made in implementing each of the ten objectives of the National Oil and Gas Policy to date.

Legal Framework

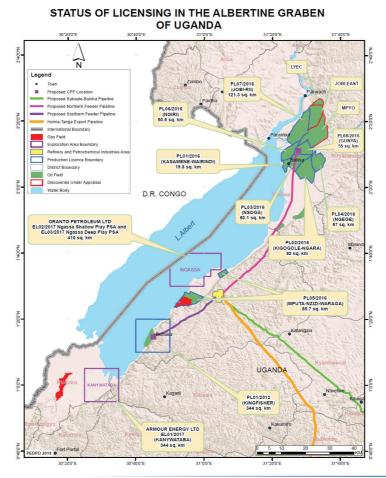
Following a wide consultative process, two new laws were enacted during 2013 to update the legal framework for the sector. These are; the Petroleum (Exploration, Development and Production) Act 2013 and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013.The following Regulations to operationalize these laws have been put in place:

- I. The Petroleum (Exploration, Development and Production) Regulations,2016
- II. The Petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations, 2016
- III. The Petroleum (Exploration, Development and Production) (National Content) Regulations, 2016
- IV. The Petroleum (Exploration, Development and Production) (Metering) Regulations, 2016
- V. The Petroleum (Refining, Conversion, Transmission and Midstream Storage) Regulations, 2016
- VI. The Petroleum (Refining, Conversion, Transmission and Midstream Storage) (Health, Safety and Environment) Regulations, 2016
- VII. The Petroleum (Refining, Conversion, Transmission and Midstream Storage) (National Content) Regulations,2016

In addition, the Public Finance Act 2015 was enacted during March 2015 and this Act 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.

CURRENT STATUS OF THE SECTOR

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 together with Armour Energy Limited and Oranto Petroleum Limited.



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Uganda is on a steady path towards sustainable production of the petroleum resources that have been discovered in the country. The efforts which have been made in the country's oil and gas sector to date have led to the following major outputs.

Data Acquisition

One hundred and twenty-one (121) exploration and appraisal wells have been drilled with one hundred and six (106) wells encountering oil and/ or gas which is an unprecedented drilling success rate of over 88%.

Confirmation of Resources

The above-mentioned work has led to the discovery of twenty-one (21) oil and/ or gas fields in the country. Appraisal of these discoveries has established that petroleum resources in these fields are now estimated at 6.0 billion barrels of oil equivalent in place with 1.4 billion barrels of these resources estimated to be recoverable.

Investment

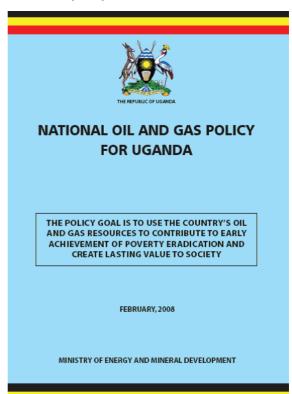
Cumulative foreign direct investment in petroleum exploration in the country since 1998 was over USD 3.4 billion at the end of 2018 and investment in the sector is expected to increase as the country enters the development, and subsequently the production and refining phases of the petroleum value chain.

THE NATIONAL OIL AND GAS POLICY FOR UGANDA

The National Oil and Gas Policy for Uganda (NOGP) was formulated through an extensive consultative process and approved in 2008. This policy is the key framework guiding the development of the oil and gas sector in the country. The NOGP can be accessed at <u>www.petroleum.</u> go.ug and <u>www.energyandminerals.go.ug</u>

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

opportunities for the accelerated development of the economy but also brought along key such anxietv issues as expectations and high by the population, the need to ensure national participation the in 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 and the need to put in place appropriate regulatory and institutional frameworks for the sector, among others.



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

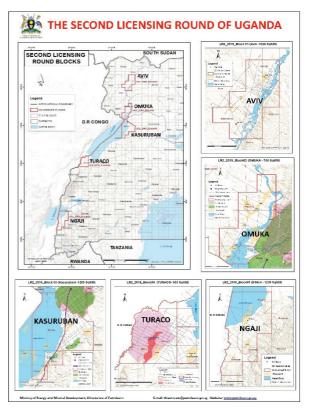
Following the approval of NOGP in 2008, Government has continued to implement the Policy in line with its (10) policy objectives. The Ministry of Energy and Mineral Development recognizes the contributions by all stakeholders including Government Ministries, Departments and Agencies, the licensed oil companies, Development Partners, Civil Society, the Media and the Academia to the development of the country's emerging petroleum sector and to the implementation of this policy. The achievements made in implementing each of the ten objectives are highlighted below:

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

The first competitive licensing round was announced by the Minister of Energy and Mineral Development in February 2015 for six blocks Ngassa (410 sq.km) in Hoima, Taitai &Karuka (565 sqkm) in buliisa district, Ngaji (895 sq.km) in Rukungiri & Kanungu districts, Mvule (344 sq.km) in Moyo and Yumbe district together with Turaco 425 sq.km and Kanywataba (344sq km) in Ntoroko district.

The bidding round ended successfully with the issuance of exploration licenses to Armour energy Ltd and Oranto Petroleum Limited for Kanywataba and Ngassa fields respectively. Government through the Ministry of Energy and Mineral Development through the Directorate of Petroleum is planning to undertake the second competitive licensing round in the country during 2020. It will cover a portion of the areas within the Albertine graben which have either been or not licensed before but have good coverage of geophysical and geological data. The licensing round will be launched at the 9th East Africa Petroleum Conference and Exhibition in Kenya in May 2019.

The second Licensing which round was announced on the 8th May for Five blocks includingAvivi(1026km²) Located in districts of Arua, Adjumani, and Yumbe, Obongi Omuka(750km²) block is located in formerly Exploration Area 1 in districts of Buliisa. Packwach, Nwoya and Nebbi, Kasuruban(1285 km) Located in districts if Hoima. Buliisa and Masindi, Turaco (635 km^{2.}) located in the semiliki basin. Ngaii (1230km^{2.}) is located in the districts of Rukungiri, Kanungu and Kasese.



Map of Second Licensing Round

The licensing round is driven by a number of factors including but not limited to establishment of additional petroleum resources and reserves to the current resource base in the country to ensure sustainability and viability of oil production. The recoverable resources are currently estimated at 1.2- 1.4 Billion Barrels of recoverable oil resources and the

associated gas established in the country todate is estimated at 170 billion cubic feet (bcf) while non-associated gas is estimated at 500bcf.

The licensing round will also take advantage of the current high crude oil price to maximise the commercial terms in the production sharing agreements. The Preparation for the licensing round is being undertaken by an inter-ministerial committee comprising of Ministry of Energy and Mineral Development (MEMD), Ministry of Justice and Constitutional Affairs (MoJCA), Ministry of Finance, Planning and Economic Development (MoFPED) and Petroleum Authority of Uganda (PAU).

Planned Work Programs (4 years) Include

- Reprocessing the existing seismic data,
- Acquiring new seismic data,
- Geological and geophysical studies
- Drilling of at least two exploration wells.
- Other Basins
- Monitor and participate in data acquisition over unlicensed areas in Albertine Graben, Kadam-Moroto, Lake Kyoga and Hoima Basins



Figure 1: Uganda's Energy Minister Eng. Irene Muloni 2nd Right) and Prince Arthur Eze (in red neck tie) the Chairman of Oranto Petroleum display a copy of the signed agreement over Ngassa field.

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

The country currently has seven (7) active Production Sharing Agreements (PSAs) for petroleum exploration, development and production and these are in respect of Explorations Area (EA) 1, 1A, 2, Kingfisher Development Area (KFDA), Kanywataba area and the Ngassa deep and Ngassa Shallow plays. The licensees in these PSAs are; Tullow Uganda Limited (TUL), Tullow Uganda Operations Pty Limited (TUOPL), CNOOC Uganda Limited (CNOOC) and Total E&P Uganda B.V (TOTAL), together with Armour Energy Limited and Oranto Petroleum Limited.

Nine (9) production licenses have been awarded to 3 companies; three (3) to Total E & P Uganda BV, five (5) to Tullow Uganda Limited and one (1) to CNOOC Uganda Limited. This was a very significant step in the Uganda's oil and gas sector since it gave a platform to start preparations for development phase which will be followed by production phase.

In order to establish the potential of the other sedimentary basins in the country other than the Albertine Graben, to generate and accumulate of hydrocarbons, the Ministry is carrying out preliminary geophysical, geological and geochemical field surveys in the Moroto-Kadam and later the Kyoga and Hoima basins. The preliminary results of the studies have shown a potential of a petroleum system and this will ultimately help to



Figure 2: Oil seep in Kadam Moroto Basin

promote and license these basins to oil companies to undertake seismic and drilling activities.

To achieve efficiency in the management of the sector, institutional reform was undertaken to separate the functions of policy and licensing, regulation and commercial aspects. This resulted into the Ministry of Energy and Mineral Development being restructured to create a Directorate of Petroleum comprised of three departments, namely Petroleum Exploration, Development and Production Department (PEDPD- Upstream) Midstream Petroleum Department (MPD) and the Petroleum Supply Department (PSD) to oversee policy matters and licensing in the sector

In line with section 9 of the PEDPD Act 2013, the Petroleum Authority of Uganda (PAU) is now the regulator of the sector and a National Oil Company (UNOC) provided for under section 42 of the same Act and incorporated under the companies act, 2012 now manages government's commercial interests (including handling of State Participation as provided for in the respective Production Sharing Agreements)

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

Commercial production of petroleum in the country is planned for 2021/22. However, the approved Field Development Plans (FDPs) that were thoroughly reviewed by government and resulted into the issuance of production licenses adequately address the requirements for efficient production of the country's oil and gas resources.

The Oil Companies are undertaking the necessary steps to prepare the oil field for development and as such CNOOC Uganda Ltd completed the Front-End Engineering and Design (FEED) for the Kingfisher project in December 2017 and Total E&P Uganda BV together with Tullow Operations Uganda Pty (TUOP) completed the Front-End Engineering and Design (FEED) for the Buliisa oil fields under the TILENGA project in June 2018. The FEED reports were submitted to government and are under review.

FEED is an extensive engineering and project cost evaluation process which can run for up to 18 months, to plan for the required facilities and define the project economics to plus or minus 5%.

During FEED, oil fields also go through uncertainty reduction and optimization which is characterized by various technical studies. These studies are meant to inform and mitigate risks associated with areas in the fields that have less data. Whereas it is impossible to completely eliminate uncertainty, optimization studies give a better understanding and this reduces the risk of producing below expectations, giving at least a 50% chance that the production forecast will be achieved or exceeded.

The development of the fields will be ushered in when the Oil Companies take the Final Investment Decision (FID) which is expected to happen during 2019. This will be followed by Engineering Procurement and Construction (EPC) works among others.

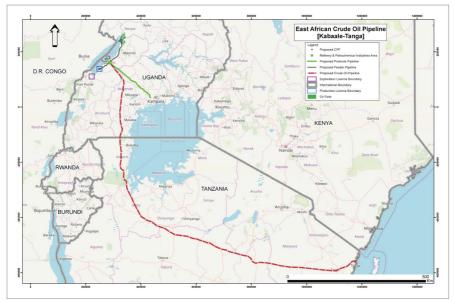


Figure 3: East African Crude Oil Pipeline from Kabaale (Uganda) to Tanga port in Tanzania

In order to facilitate the development of the requisite facilities and unfractured for the attainment of first oil by 2021/2022, the oil companies have taken big steps in acquiring land for the Kingfisher project facilities, Tilenga project facilities and East African Crude Oil Pipeline (EACOP) including Central Processing facility, feeder pipelines etc. Government also acquired land for the refinery and is currently acquiring land for the finished petroleum products pipeline from the refinery in Hoima to a storage and distribution terminal at Namwabula in Mpigi

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

The policy recommends refining the discovered oil to supply the national and regional petroleum product demand before consideration of export options. 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 and other midstream facilities in Uganda.

In light of the above and on the recommendation of a feasibility study carried out in 2010 by a Consultant government is developing a 60,000 barrels per day Greenfield oil refinery in Kabaale, Hoima district. The Albertine Graben Refinery Consortium (AGRC) was selected as the lead Investor who will design, build, finance and operate the refinery. Government entered into a Project Framework Agreement (PFA) for the implementation of the Pre - Final Investment Decisions (FID) activities with the Albertine Graben Refinery Consortium (AGRC) in April 2018.

The Consortium consists of Yaatra Africa LLC, Lion Works Group, Nuovo Pignone International SRL (a General Electric company), and Saipem S.P.A. The Government of Uganda shall participate in the refinery development through the Uganda Refinery Holding Company, a subsidiary of the Uganda National Oil Company. The Consortium together with the Uganda National Oil Company (UNOC) completed the

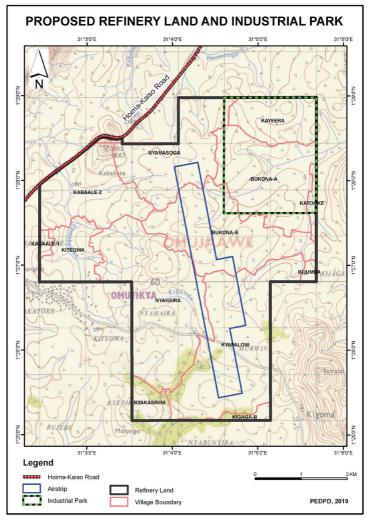


Figure 4: Proposed Refinery land

final refinery configuration and it has been approved by government. They have now commenced on the Front-End Engineering Design (FEED) and Environment Social Impact Assessment studies as a lead up to the Final Investment Decision (FID) for the refinery by September, 2020

Uganda's refinery will be located in the Kabaale Industrial Park, which is

under the management of UNOC. The KIP will host other infrastructure including Uganda's second international airport to handle heavy, bulky and sensitive Cargo for refinery development and, for the development and operation phases for the rest of petroleum industry. Colas (UK) Ltd and SBI International Holdings Ag from Israel through SBC Uganda Limited a joint venture Company are the contractors for the airport. There are on-going works to complete the first phase that comprises of a runway, tax way, aprons for parking and a cargo terminal. The first phase is expected to be in place during 2019.

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.

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

Following conclusion of Route Feasibility studies for Export Pipeline for the Uganda Crude and discussions with the Government of the United Republic of Tanzania the Government of Uganda together with Joint Venture partners (JVP) agreed on the crude oil export route through Tanzania. The pipeline named the East Africa Crude Oil Pipeline (EACOP) starts in Kabale, Hoima in Uganda and terminates at Tanga port, Tanzania. EACOP is very important since it provides a safe and efficient transportation mode for some of the produced crude oil to the world market. Government of Uganda and that of Tanzania signed an Inter-Governmental Agreement for the EACOP during May 2017 and negotiations for the respective Host Government Agreements between the Project Promoters (licensed Upstream Oil Companies) and the Governments of Uganda and the United Republic of Tanzania are in advanced stages which will pave way for the Final Investment Decision. The Front-End Engineering Design (FEED) of the 1445km long, 24-inch heated East African Crude Oil Pipeline (EACOP) was completed in 2018 and the project is now moving into the Detailed Engineering Phase. Part of the East African Crude Oil Pipeline Project is the development of a Marine Storage Terminal of 2 Million barrels at Chongoleani near Tanga Port in Tanzania. This storage is aimed at facilitating the efficient and continuous production of the upstream as well as facilitating the crude trading and shipping to the international market. At the current estimated production, the storage facility can accommodate approximately 10 days production.

Operation of Jinja Storage Terminal (JST); the government through the Uganda National Oil Company has continued to operate the 30 Million liters storage at Jinja and is in the process developing a jetty in Jinja on Lake Victoria so as to promote transportation of imported products over the lake. The jetty development which is at design level is meant to improve the supply chain and overall efficiency at Jinja Storage Terminal. The government is looking for investors to partner with in the development and operation of the Jetty.

Development of Kampala Storage Terminal (KST); The Government plans to develop a 320 Million Storage facility in Namwabula, Mpigi District to improve the storage capacity of the country and region. The government advertised for a strategic partner to jointly develop Kampala Storage Terminal (KST). Bids were received and are currently under review. The land for the development of KST was already acquired by Government.

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

The Ministry of Finance, Planning and Economic Development and Bank of Uganda are 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 also formulated the Public Finance Act 2015 to Parliament during May 2012. This law provides for among others, the management of revenues accruing from petroleum resources. As of December 2018, Government had received over Ugx 3.9 trillion from Non-tax revenues, Capital Gains Tax, and other tax obligations from operations in the sector.

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

Government's approach to National content has been clearly and precisely articulated in the existing Policy, Legal and Regulatory frameworks, including the Local Content Policy, 2018, which was passed by Cabinet in June 2018. Through this policy, Government has made commitments to support participation of Ugandans in the oil and Gas Sector. These include efforts to:

- a) Build the capabilities of Uganda's human resources,
- b) Promote employment of Ugandan citizens and enterprises,
- c) Develop the competitiveness of Ugandan enterprises as suppliers and Joint Venture Partners.
- d) Increase the use of locally produced or available goods and services by the Oil and Gas Industry, and
- e) Promote in-country Research and Development (R&D) and technology transfer to Ugandans.

Studies undertaken show that the sector will generate up to 160,000 jobs of which over 140,000 will be generated by the contractors and sub- contractors.

A National Supplier Database (NSD) was created in 2017 as a platform where businesses interested in supplying the sector can register. To date, the database has 1,011 registered businesses of which 706 are incorporated in Uganda.

On the 1st of February 2019, the National Oil and Gas Talent Register (NOGTR) was launched and registration is ongoing. The NOGTR is an electronic database of skillsets in the sector and will ensure that the PAU is able to monitor the absorption of the available labour force in the sector.

Ugandan Companies have continued to supply the Oil and Gas sector at different levels and in different service categories ranging from logistics, legal services, land surveys, environment studies, Catering, camp management, transportation, civil works to now geotechnical studies. Participation of Ugandan Companies in these categories formed part of the over USD 900 million (28%) cumulative value retention in the Country reported during the initial exploration phase. Government is working through the Directorate of Petroleum, Petroleum Authority of Uganda, Uganda National Oil Company to ensure that Ugandan companies also benefit from the expected USD 20 Billion investment.

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

Under this policy objective, the Uganda Petroleum Institute Kigumba (UPIK) which offers diploma and certificate courses in petroleum related studies was established under the Ministry of Education and Sports and it opened during March 2010. Uganda Petroleum Institute, Kigumba was granted approval as a Centre to offer City & Guilds Qualifications on the 21 November 2018 and were allocated the Centre Number: 851035. This accreditation allows UPIK to offer 22 City & Guilds programs from level 1 to level 3) UPIK is also working towards becoming an award centre for the Offshore Petroleum Industry Training Organization (OPITO); the Engineering Construction Training Industry Board (ECTIB); and the Certification offered by our Twining Partner the French Petroleum Institute (IFP-Training).

The sector also further, in collaboration with Ministry of Education and Sports promoting international accreditation and certification of vocational training institutes. Some of these institutions include, Buhimba Technical Institute, Kyema Technical Institute. To date, three institutions in the Country have acquired City and Guilds certification, these include; UPIK, Q-sourcing/TASC and Kinyara Sugar Factory. In addition, Uganda Petroleum Institute is in advanced stages of acquiring accreditation from International Construction Industry Training Board, American Welding society and the French Institute of Petroleum (IFP). This will support acquisition of training skills that are relevant to Industry standards.

The Ministry of Education and Sports launched the Albertine Region Sustainable Development Project (ARSDP) that will see 600 trainees from 13 districts selected and awarded bursaries for skills training from accredited public and private institutions. The bursary will cover tuition, and accommodation of Ugandan students who have lived in the Albertine region districts of Nebbi, Nwoya, Buliisa, Masindi, Hoima, Kibaale, Kakumiro, Kagadi, Kyenjojo, Kabarole, Ntoroko, Bunyangabu and Kiryandongo for the past five years.



Figure 5: Interns on the extreme left undertaking descriptions and measurements of lithologic (left) and mapping the basement complex units (right) with PEDPD staff.

Through the E4D/SOGA, 220 students internationally certified in welding, metal fabrication, pipe-work, basic electrical installation and scaffolding in partnership with St. Simon Peters VTC and a training provider – Youth Employment Enhancement Project

The international investments coming into Uganda offer opportunities for the local labour market. However, some of the employment potentials require international levels of training in specific trades, such as welding. To address this challenge GIZ E4D/SOGA partnered with The Assessment and Skilling Centre (TASC) and St Simon Peters Vocational Training Centre to set-up the "Youth Employment Enhancement Project" (YEEP). YEEP trained, certified and placed a total of 220 craftsmen and -women in internships. Trainees were selected from the districts of Hoima/Masindi, Buliisa, Nwoya, Nebbi and the informal sector in Kampala (e.g. Katwe). The project ended July 2018. A first tracer study 31ST May 2018 indicated first employment effects:

- Of 20 certified 3G coded Welders 19 were in jobs after training (thereof 11 new/additional jobs), 13 had increased incomes.
- Of 30 certified Basic Electrical Engineering technicians 19 were already in jobs (thereof 12 new/additional jobs), 18 had increased incomes. Final impact to be assessed with next tracer.
- 50 Welding Fabrication and Pipework Craftsmen/women certified: Impact to be assessed with next tracer study.

120 Scaffolder erectors and 50 scaffolding inspectors trained and certified. Out of 91 surveyed, 69 were in employment (25 in new jobs), 60 had increases incomes

Government continues to prioritise capacity building of Officers from different institutions taking forward the development of the Oil and Gas Sector in the Country. These include Ministries of Finance Planning and Economic Development, Justice and Constitutional Affairs, Energy and Mineral Development, 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 100 officers in Government have been trained at Masters level specializing in different petroleum disciplines. The oil companies licensed in the country such as Tullow Oil, Total and CNOOC together with their service providers are also offering training opportunities for the sector at both the blue collar and professional levels. Some development partners are also offering capacity building opportunities in the sector. TOTAL Uganda sponsored a training for welders from the host districts of the East African Crude Oil Pipeline.

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

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 objective. The Albertine Graben, where oil and gas activities are taking place in Uganda, is recognised 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 the National Environment (Environment Impact Assessment) Regulations, 1998. During the EIA process, consultations are undertaken

with stakeholders community and at 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 and Audits are carried out to assess compliance with



environmental requirements and to investigate any impacts which may not have been predicted at the time when EIA approval was granted. Drilling waste is containerized and monitored at designated sites as the requisite legislation and authorization for its disposal are being updated. NEMA has now licensed three companies to handle the treatment and disposal of petroleum related waste in the country and facilities for waste treatment and disposal are being constructed.

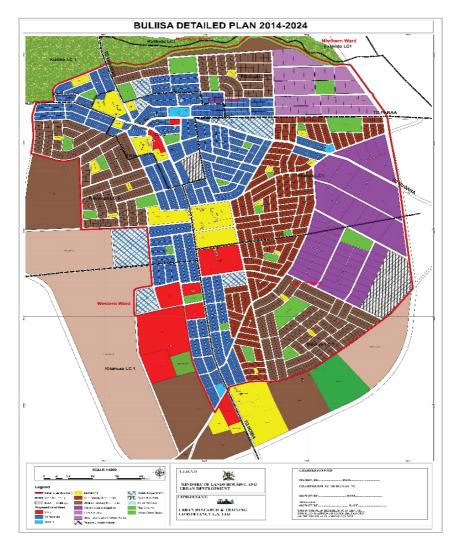
In the effort to ensure appropriate environment management for the oil and gas sector in the country, the following tools have been developed;

- 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 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 for Oil and Gas Activities in the Albertine Graben has been prepared 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 AG such as Murchison Falls National Park, Budongo Forest have been updated to provide for the ongoing and planned activities within these areas of high biodiversity.

In addition, the National Environment Management Authority is reviewing and updating the environment legislation including the National Environment Management Authority, the Petroleum (Waste Management) Regulations, 2019, the National Environment (Environment Impact Assessment) Regulations, the National Environment (Environment Audit) Regulations, the National Environment (Effluent) Regulations and Standards, the National Environment (Noise and Vibrations) Regulations and the National Environment (Waste Management) Regulations among others.

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

The ministry of Lands, Housing and Urban Development is actively involved in 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. A Regional Physical Development Plan was developed for the Albertine Graben in 2014. Land-use 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 was conducted. Planning for the areas around the refinery development area has also been undertaken.



The Upstream department continues to oversee the implementation of resettlement action plan (RAP) activities for the Tilenga project operated by Total E&P Uganda BV and Kingfisher Development Area (KFDA) project operated by CNOOC Uganda Limited. The RAP implementation status for Kingfisher project is over 80% and that of Tilenga project is around 50%

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

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. 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 during 2013. 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 Refinery Development Project, 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 ensure ownership of the outcome of the frameworks by the respective stakeholders.

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 and is under implementation. 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. This effort has included engagement with the media, civil society, business entrepreneurs, religious and cultural institutions together with leaders and communities in the Albertine Graben as focal stakeholders. This strategy recognizes the need for stakeholders to work together in order to achieve its objectives, and more specifically the contribution of the Petroleum Authority of Uganda and the Uganda National Oil Company, together with the licensed entities and their service providers.

The Albertine Graben where oil and gas exploration is taking place is shared with 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.

In addition, the East African Community Partner States are also working together to take forward development of key infrastructure such as pipelines, the refinery project and refurbishing the railway network to, among others, support the developments in the regions and also promote investment in the region's emerging oil and gas sector through the biennial East African Petroleum Conference and Exhibition.

Government is continuing to establish linkages with other countries where oil and gas exploration, development and production is taking place, including Australia, India, Malaysia, Norway, Trinidad and Tobago and USA, among others. This is with a view to provide opportunities to share experiences in the sector.

CONCLUSION

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 established petroleum province. Planning for the development, production and refining of petroleum in the country is now ongoing.

The oil and gas sector which is a newly emerging sector in the country's economy 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 multinational companies in the country; technology transfer and industrial development, among others.

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

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Ministry of Energy and Mineral Development

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

For More Information Contact: The Permanent Secretary Ministry of Energy and Mineral Development Amber House, Plot 29/33 Kampala Road P.O Box 7270 Kampala-Uganda Tel: Office: +256-41-234733/ 230243 Email: psmemd@energy. go.ug or pepdebb@petroleum.go.ug Web; www.energyandminerals.go.ug or www.petroleum.go.ug