



**OIL AND GAS REGULATORY FRAMEWORKS:
STRATEGIES AND OPTIONS FOR NAMIBIA**

A CASE STUDY OF UGANDA

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by

Mr. Alex Nyombi

Director of Development and Production

Petroleum Authority of Uganda

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EXECUTIVE SUMMARY

Uganda's oil and gas sector provides a practical example of how a country can transition from petroleum discovery to development through deliberate strengthening of policy, legal, regulatory, and institutional frameworks. Since the confirmation of commercial oil discoveries in 2006, Uganda has pursued a structured approach focused on good governance, regulatory oversight, environmental stewardship, national participation, and value creation. This experience offers useful lessons for countries such as Namibia that are preparing for large-scale petroleum development. Based on approximately 6.65 billion barrels of oil in place and 1.65 billion barrels of recoverable resources, Uganda is on the verge of first oil production, expected during FY2026/27.

A key pillar of Uganda's success has been the establishment of a clear policy, legal, and institutional framework. The National Oil and Gas Policy of 2008, recently updated through the National Petroleum Policy 2025, is supported by dedicated petroleum legislation governing upstream and midstream activities. Equally important is the separation of policy, regulation, and commercial functions among the Ministry of Energy and Mineral Development, the Petroleum Authority of Uganda (PAU), and the Uganda National Oil Company (UNOC). This structure has enhanced transparency, accountability, investor confidence, and effective management of petroleum resources.

The Petroleum Authority of Uganda has played a central role in regulating the sector and safeguarding national interests. Through oversight of resource management, cost control, environmental protection, data management, and national content, the Authority has facilitated the advancement of Uganda's flagship petroleum projects. These include the Tilenga Project, Kingfisher Project, the East African Crude Oil Pipeline (EACOP), and the Uganda Refinery Project, together representing investments exceeding USD 15 billion. By mid-2026, project completion rates had reached 74% for Tilenga, 80% for Kingfisher, and 92% for EACOP, demonstrating significant progress toward production.

Uganda has also invested heavily in petroleum data management and technical capacity. A modern National Petroleum Data Repository, incorporating a state-of-the-art data centre, real-time monitoring systems, and disaster recovery infrastructure, has strengthened the country's ability to manage petroleum information, support decision-making, and regulate increasingly complex operations. This investment in data governance highlights the importance of technical readiness before production commences.

Cost efficiency and economic analysis have been critical components of Uganda's regulatory approach. By June 2026, cumulative investment in the sector had reached approximately USD 14 billion, with petroleum-related foreign direct investment accounting for nearly 70% of Uganda's total FDI. Regulatory review of work programmes, budgets, procurement processes, and cost recovery mechanisms has helped maintain project viability. Current economic assessments indicate that Uganda's petroleum projects remain robust at oil prices of about USD 30 per barrel, with anticipated annual government revenues of between USD 1 billion and USD 2.5 billion once production begins.

Environmental and social management have been integrated into project development from the outset. Uganda established comprehensive frameworks covering environmental protection, waste management, oil spill preparedness, health and safety, land acquisition, and livelihood restoration. The sector has adopted advanced technologies to minimise environmental impacts, while resettlement and livelihood restoration programmes have improved living standards for thousands of affected households. These efforts demonstrate the importance of balancing petroleum development with environmental conservation and community welfare.

National content has emerged as one of Uganda's most significant achievements. Of contracts worth over USD 7.4 billion approved by the PAU, more than USD 2.3 billion have been awarded to Ugandan companies. Nearly 18,000 Ugandans are directly employed in the sector, representing approximately 86% of the workforce, while over 195,000 additional jobs have been generated indirectly. More than 14,000 Ugandans have received specialised oil and gas training, and extensive enterprise development initiatives have strengthened the capacity of local businesses to participate competitively in the industry.

Even before production, Uganda's oil and gas sector has generated substantial benefits. These include increased government revenues, employment creation, skills development, growth of local enterprises, improved infrastructure, and stronger linkages with sectors such as agriculture, manufacturing, transport, tourism, health, and education. Economic analysis estimates that these linkages could contribute up to USD 8.6 billion in GDP growth before first oil, reinforcing the role of petroleum as a catalyst for broader economic transformation.

Despite these achievements, challenges remain. Delays in project implementation, funding constraints, regulatory compliance issues, staff retention concerns, and external activism have highlighted the need for continuous institutional strengthening and stakeholder engagement. Addressing these challenges remains essential to sustaining project momentum and ensuring long-term sector success.

For Namibia, Uganda's experience underscores several strategic priorities: establishing strong and independent institutions, maintaining clear legal and fiscal frameworks, strengthening environmental oversight, developing petroleum data systems, promoting local content and skills development, ensuring transparent revenue management, and leveraging petroleum resources to support industrialisation and economic diversification. The overarching lesson is that petroleum resources alone do not guarantee prosperity; rather, sustainable national benefits depend on strong institutions, effective regulation, sound governance, and deliberate efforts to convert petroleum wealth into long-term economic and social value.

1. INTRODUCTION

Uganda is a locked in East Africa, and its confirmed resources are found within the Albertine Graben, a sedimentary basin that straddles the boarder with the Democratic Republic of Congo. The country pursued petroleum exploration for several decades before achieving commercial success, with the first commercial discovery confirmed in 2006.

Following the discovery Government invested in improving its technical capacity, policy and legal frameworks and institutional arrangements. This approach has enabled Uganda to transition from exploration to development while maintaining regulatory oversight and investor confidence.

1.1 History and Evolution of Uganda Petroleum Sector

In 1925, Petroleum Potential of Uganda was documented by a Government Geologist E.J. Wayland, in the publication “Petroleum in Uganda”. The report documented existence of oil seepages along the shores of Lake Albert in on both Uganda and DRC sides.

In 1936 -1956, the first shallow stratigraphic wells were drilled by the African – European Investment Company. The first deep well, Waki B-1 well was drilled in Butiaba, in 1938 and encountered bitumen. Twenty (20) Shallow wells were drilled in Kibiro and Kibuku areas for geological correlation and these are documented by Harris et al 1956. Geological surveys and Mines Department, during the 1940’s and 50’s established the presence of sedimentary sequences in the Albertine Graben (Memoirs of the Geological Survey, 1959).

The period 1945 – 1980 is referred to as the period of Limited Activity because of the Second world -war, change in policies of colonial masters where East Africa was zoned for Agriculture coupled with post-independence political uncertainties and instability in the Country.

Consistent and modern efforts commenced in 1983 with the acquisition of 9,578-line km of aeromagnetic data that identified three depo centres along the entire length of the Graben. Exploration intensified during the 1990s. Commercial discoveries at Mputa in 2006 and subsequent fields confirmed the existence of a significant petroleum province. Despite significantly high discovery and drilling success rates

(88%), compared to global averages, Government suspended new exploration licensing in 2006, in order to put in place a new policy and legal framework for the oil and gas sector in Uganda.

Today, Uganda reports approximately 6.65 billion barrels of oil in place and 1.65 billion barrels of recoverable resources. These resources have been confirmed through twenty one (21) discoveries, fourteen (14) of which are being taken forward for development, and eventually production.

2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

2.1 Policy Framework

The National Oil and Gas Policy of 2008 established the guiding principles for petroleum governance. Key objectives include efficient resource management, value addition, transparency, accountability, environmental sustainability and participation of Ugandan citizens and enterprises. The policy recognizes petroleum as a catalyst for industrialization and broader socio-economic transformation. This policy served the country well through the exploration and development phase. In October 2025, Cabinet approved a new National Petroleum Policy 2025 to guide the sector. In addition, Uganda enacted an Oil and Gas Revenue Management Policy in 2012 that guides Uganda's Revenue Management Framework.

2.2 Legal Framework

Uganda regulates upstream and midstream activities through dedicated legislation enacted in 2013 to operationalize the policy framework. The laws include the Petroleum Exploration, Development and Production (PEDP) Act, Cap 161; and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act, Cap 162 together with the East African Crude Oil Pipeline (Special Provisions) Act, Cap 163 of 2021. The PEDP Act repealed the Petroleum Exploration and Production Act of 1985. In 2016, the Ministry of Energy and Mineral Development developed regulations in line with the two Acts and these are;

- a) The Petroleum (Exploration, Development and Production) Regulations 2016
- 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.

This is in addition to other sectoral laws, statutes and guidelines on Environment, Wildlife, Water, Income Tax, Land, among others

2.3 Institutional Arrangements

A defining feature of Uganda's model is the separation of policy, regulation and commercial interests.

- a) The Ministry of Energy and Mineral Development (with the Directorate of Petroleum) which is responsible for policy making; coordinating the development of the sector; and undertake licensing and national and capacity building among other roles.
- b) The Petroleum Authority of Uganda (PAU) regulates the different players in the sector, including enforcing compliance and monitoring the operations of oil companies.
- c) The Uganda National Oil Company (UNOC) as a separate commercial entity responsible for state participation in the licences and other related business aspects.

The detailed roles of the Petroleum Authority and National Oil Company are provided in the respective laws.

3. THE REGULATORY ROLE PETROLEUM AUTHORITY OF UGANDA

The Authority has established a regulatory environment that ensures that the development of the country's oil and gas sector is in compliance with the country's legislation, and in line with international best practice. Through monitoring and

regulation, the Authority has safeguarded the country's interests in the sector while promoting investor confidence, which is in line with the Authority's mission of **Creating Lasting Value for Society and Contributing to Uganda Being a Sound Investment Destination**.

The Petroleum Authority of Uganda has regulated the country's oil and gas sector along five Strategic areas. These are; Resource Management, Cost Management, Data Management, Environment, Health and Safety Management together with National Participation.

3.1 Resource Management

The Authority is required to ensure that the country's petroleum resource endowment is well established and that the discovered petroleum resources are produced in the most efficient way.

3.1.1 The Petroleum Resources

As part of the effort to ensure understanding of the country's petroleum resource endowment, the Authority compiles an Annual Petroleum Resources Report that details an estimation of the country's reserves and production forecast. This report is submitted to the Minister annually, as required by law, and subsequently tabled in Parliament by the Minister.

Uganda's petroleum resources (Oil in place) are currently estimated at 6.65 billion barrels, and the recoverable resources at 1.65 billion barrels. The Authority reviews technical data submitted by the licencees and uses this information to estimate the country's resource endowment. The description of this resource endowment is professionally undertaken using internationally established standards.

3.1.2 The Flagship Projects

The announcement of the Final Investment Decision in 2022 unlocked the engineering, procurement and construction phase for the country's flagship petroleum projects. These projects which are Kingfisher, Tilenga and EACOP have a projected investment of over 15 billion US dollars. The construction phase for these three projects is now at its peak with commercial production - First Oil - expected during the financial year 2026/2027.

- a) Operated by TotalEnergies EP Uganda B.V., **the Tilenga Project** covers six fields with approximately 874 million barrels of resources and expected peak production of about 190,000 barrels per day. Development involves 420 onshore wells drilled from 29 well pads using three rigs over about 4.6 years. Capital investment is estimated at US\$ 6 billion.
- b) Operated by CNOOC Uganda Limited, **the Kingfisher Project** has approximately 186 million barrels of recoverable reserves and expected peak production of about 40,000 barrels per day. It covers the Kingfisher field and three fields in Licence Area 2 South. Capital investment is estimated at US\$ 2 billion.
- c) The 1,443-kilometre heated **East African Crude Oil Pipeline (EACOP)** will connect Uganda's fields to the Port of Tanga in Tanzania, enabling crude exports to international markets. Capital investment is estimated at US\$ 5 billion.
- d) The 60,000 barrels per day **Uganda Refinery Project** that includes a 100km petroleum products pipeline. Capital investment is estimated at US\$ 4.5 billion.

The Authority leads the monitoring and regulation of these projects, which are mega in scale, represent and whose implementation is intense. The activities being undertaken at the Tilenga and Kingfisher petroleum production projects include drilling of wells, in preparation for oil production, construction of two central processing facilities together with other installations and construction of the 1443km long East African Crude Oil Pipeline together with the Above Ground installations including pressure reduction stations, a marine base, and main camp & pipe yards.

The Authority has over the last ten (10) years reviewed and approved the different technical submissions prior to the commencement of the respective construction activities as required by the legislation. These submissions have included the Front End Engineering Design Studies, drilling programmes, together with the reservoir reports, and other social, economic and environment studies among others. The Authority also actively participated in the various Front End Engineering Design Studies for the respective projects through attachment of its staff on different projects overseas and this facilitated the Authority's efficient review and subsequent approval of these designs.

The overall completion rates for these projects currently are 74% for Tilenga, 80% for Kingfisher and 92% for the East African Crude Oil Pipeline.

Regarding the Uganda Refinery project, the signing of the Implementation Agreement in March 2025 with Alpha MBM from the United Arab Emirates marked the beginning of critical project development activities. The activities which are ongoing include finalisation of the design, pre-commissioning studies, securing project financing, and the establishment of the Refinery Company, which has now been fully incorporated. The refinery project is expected to strengthen energy security, reduce import dependence and stimulate industrial development.

Petroleum development can support industrialization through infrastructure investment, demand for local goods and services, technology transfer and development of downstream industries. The Kabalega Industrial Park and refinery are expected to anchor future petrochemical, manufacturing, and agro-processing activities, among others.

3.2 Petroleum Data Management

The Authority has established a state-of-the-art data centre, along with its attendant data management systems, for managing the country's physical and digital petroleum data. This data centre, which is hosted in the Petroleum House in Entebbe, was completed in 2021 and is now operational. The centre includes servers for storage of electronic data, a modern core store, and a seismic data tape storage and transcription facility. The data centre is part of the country's National Petroleum Data Repository (NPDR) which is still being developed. This centre has enhanced the Authority and the country's ability to receive and archive technical data and also enabled efficient access to this data for analysis and critical decision making when required.

The centre holds over 70 Terabytes of electronic data and thousands of physical data (or geosamples), and the volume of data in the data centre has continued to grow during the ongoing development phase. The volume of data in the centre is expected to grow at an even faster pace upon commencement of oil and gas production.

The Authority is currently establishing a Real Time Monitoring Centre (RTMC) as part of the NPDR. Procurement of a contractor for the RTMC was completed and it is now under development. The RTMC will enable receipt of data and information in real time

and this will enhance the monitoring of drilling, production, and crude oil transportation, among other activities.

An offsite Disaster Recovery Solution (DRS) which will act as a data back-up to facilitate Business Continuity, is also being put in place as part of the NPDR. Completion of the RTMC and the DRS will mean full implementation of a NPDR for the country.

3.3 Cost Efficiency and Economic Analysis

The Authority is responsible for ensuring that the operations undertaken by the licensed oil companies and their contractors are cost-efficient. This is important because the investments and operational costs incurred by the licensed oil companies are recovered from an allocation of a portion of the produced crude oil to cover their costs.

A total of US\$14 billion had been invested in the sector by the end of June 2026, out of which US\$2.65 billion and US\$1.4 billion were invested in 2025 and 2026, respectively. Of this total investment, US\$9.4 billion was invested in the exploration and preparation of the oil fields for production, while US\$4.6 billion has been invested in EACOP. About US\$2.77 billion is expected to be invested in 2026, as the country expects to commence crude oil production and conclude development. Oil-related Foreign Direct Investment (FDI) now accounts for close to 70% of the country's FDI..

The Authority has reviewed and approved annual work programs and budgets for licensees, reviewed procurement processes, monitored the execution of work programs, and supported cost recovery audits undertaken by the Office of the Auditor General.

Economic evaluation of the projects is carried out with a view to maintain the profitability of the projects and secure the country's earnings in the sector. The Authority has developed and is utilising economic and financial tools to support this evaluation, and this is contributing to the country's petroleum production projects remaining robust at about US\$30 per barrel. Uganda is expected to receive annual revenues of between US\$ 1 to US\$ 2.5 billion (depending on the crude oil prices) after commencement of production.

3.4 Environmental Management and Social Management

When commercial quantities of oil and gas resources were confirmed in Uganda in 2006, deliberate steps were taken to ensure that the country's policies and legislation addressed the environmental and social issues associated with petroleum development. From its inception, the Petroleum Authority of Uganda, has worked with the other relevant Ministries, Departments and Agencies of Government to put in place, and/or update the frameworks required for regulating and monitoring of environmental and social issues associated with petroleum development.

Specific frameworks have been developed to regulate petroleum waste management, oil spill preparedness and response, land acquisition together with health and safety among others. Therefore, unlike in some countries where management of petroleum waste or oil spills have led to undesired environmental and social consequences, in Uganda these aspects have been prepared for and regulated to ensure that they cause no adverse effects. As an example, Uganda approved its National Oil Spill Contingency Plan in 2022, and several activities including training and procurement of equipment are ongoing. In addition, all waste generated from petroleum operations is being managed at designated state-of-the-art facilities that include Thermal Desorption Units. These facilities have been purposely designed and constructed to manage the waste generated from petroleum activities.

All the petroleum projects in the country had to undergo very robust environmental and social screening, impact assessment and mitigation in the midst of very hostile foreign actors who did not want these projects to go ahead under deceitful environment and climate change reasons. The Authority regulated and monitored these processes to ensure that they left no gaps for these negative actors to take advantage of. As a result, the petroleum projects we have in this country have adopted state of the art technology and methods of work that resonate very well with the sensitive environment in which these projects are being implemented. The country has one of the most technologically advanced and least carbon intense projects in the world which are on course to achieve a net gain on biodiversity with negligible impact on the natural environment.

As the oil and gas activities are being implemented, the Authority has ensured that the communities that host these projects are not left behind. The land acquisition and

resettlement process was regulated and monitored to ensure that every individual or groups of individuals and households whose land was affected by the projects, are left in a better state than they were before. As a result, over 475 better and modern homes were built for Project Affected Persons whose primary residences were affected by the projects. Nearly 20,000 households from 11 districts in the country have benefited from various livelihood restoration programs which included agricultural support, vocational/technical training and business development together with improvement of host community social services/infrastructure such as schools, health facilities, as well as water and sanitation facilities. When you visit these areas, you will see that the social-economic landscape in the areas where oil and gas activities are being undertaken in the country is much better than it was 10 years ago.

Uganda is now cited globally, as a leading benchmark in balancing oil and gas developments with the sensitive eco systems in which the oil and gas activities are being undertaken.

These achievements are a result of ensuring that what needs to be done is well defined and its implementation is well regulated.

3.5 Promotion of the Participation of Ugandans and Ugandan Enterprises (National Content)

The participation of Ugandans and Ugandan Enterprises in the country's oil and gas sector, also referred to as National Content, is critical to achieving a sustainable and impactful oil and gas sector. The Authority has championed this effort over the last ten years of its existence through its regulatory work, and the following achievements have been made:

- a) Out of over US\$ 7.4 billion of contracts submitted by the licensed oil companies and approved by the PAU to date, over US\$ 2.3 billion have been awarded to Ugandan companies. In addition, close to 18,000 Ugandans are now directly employed in the sector accounting for 86% of the 22,000 directly employed persons, while another more than 195,000 Ugandans are employed indirectly or through employment induced by activities in the oil and gas sector. In terms of quality of employment, Ugandans occupy 64% of management positions, 85% of technical roles, and 99% of other support positions in the sector thus

demonstrating a strong commitment to employment of national talent across all skill levels.

- b) The Authority has set up digital platforms such as the National Supplier Database (NSD) and the National Oil and Gas Talent Register, which have become a cornerstone for showing the available capacity of Ugandans and Ugandan enterprises to supply goods and services to the oil and gas sector.
 - i) The National Suppliers Database (NSD) which is also driving transparency in the procurement process in the sector, now has 2,691 registered companies from 48 countries. 2,353 of these registered entities are Ugandan. In addition, over 630 entities registered on the NSD have so far been awarded contracts, and 465 (53%) of those were Ugandan entities.
 - ii) To support visibility of Ugandan talent and enhance their employability, the Authority established the National Oil and Gas Talent Register (NOGTR). The NOGTR registered a cumulative total of 10,896 Ugandans.
- c) As a result of the enterprise development efforts in the oil and gas sector, over 4,000 SMEs have received business development support, and over 5,900 enterprises in the country have participated in supplier development workshops. These efforts have strengthened the country's entrepreneurial ecosystem, enhanced the visibility of opportunities for contracting and improved competitiveness.
- d) In addition, more than 14,000 Ugandans have been trained and certified in petroleum-related vocational disciplines like welding, HSE, scaffolding, together with heavy goods vehicle driving and operation. The Authority, working with the Ministry of Education and Sports and Oil and Gas Trainers Association of Uganda, has supported the accreditation of international certifications in 15 technical institutions across the country including both public and private entities.

- e) Regarding joint ventures and partnerships, the Authority has supported the formation of more than 65 Joint Ventures and enabled the transfer of technology and equipment worth over US\$ 300 million. Training institutions have benefited from donations of international industry standards, software, and hardware tools, that are used in training of young people at higher institutions of learning. These institutions include Makerere University, Kyambogo University and Nkumba University.

Whereas the numbers are important, equally important is the fact that the Authority has put in place a system for measuring how Ugandans and Ugandan enterprises are participating in the country's oil and gas sector, which is extremely important.

3.6 Linkages with other Sectors of the Economy

To achieve enhanced economic value from the projects, the Petroleum Authority of Uganda has collaborated with other sectors of the economy, like health, transport, housing, tourism, agriculture, and education, with a view to identify, strengthen linkages between the oil and gas sector and the country's broader economy. The Authority has worked with the private sector to finance studies that define and recommend areas in these linkages between the oil and gas sector and other sectors of the economy that can be harnessed. Harnessing these linkages will contribute to the Oil and Gas sector, delivering a much greater multiplier effect to the Ugandan economy. It is estimated that optimal exploitation of these sectoral linkages could generate up to US\$8 billion in GDP growth for the country before First Oil in the sectors where it is implemented.

3.7 Partnerships, Collaboration and Stakeholder Engagement

The African Proverb: "If you want to go fast, go alone. If you want to go far, go together" captures the collaborative spirit, and shared purpose that have defined the development of Uganda's oil and gas sector. It reflects how institutional synergies and teamwork have driven the progress over the past decade.

Uganda is collaborating at international bodies for energy international bodies, like the International Upstream Forum, the Energy Regulators of East Africa (EREA), the Africa Petroleum Regulators Forum and also with petroleum agencies bodies from Norway, Ghana, Kenya, Tanzania, Zanzibar, and now Namibia among others. This is in addition to the partnership the Authority has with other institutions in the country that

support the work of the Government under environment, finance and other sectoral pillars.

Government has made significant strides in communication and stakeholder engagement, guided by its Corporate Communication Strategy and Plan with a view to enhance transparency and foster trust in Uganda's oil and gas sector. This has been achieved through initiatives such as the Annual Joint Conference with Civil Society, Media and other stakeholder visits to the operation areas, community outreach programs, publications and engagement on government's digital platforms, among others. This has strengthened partnerships with the respective stakeholder groups.

With a strong commitment to transparency through communication and stakeholder engagements, the Authority continues to pursue regulatory excellence while building public trust.

7. BENEFITS OF THE SECTOR

Uganda's oil projects are delivering substantial benefits even before production. The sector has attracted significant investment, generated government revenue, created employment opportunities, enhanced skills development, strengthened local businesses, and accelerated infrastructure development. Looking ahead, commercial oil production is expected to further boost economic growth, government revenues, industrialisation, and socio-economic transformation, positioning the petroleum sector as a key driver of Uganda's long-term development aspirations.

a) Economic Growth and Revenue Generation

The development of Uganda's petroleum resources is expected to significantly contribute to national economic growth. The sector is projected to increase Uganda's Gross Domestic Product (GDP) by approximately USD 8.6 billion before first oil through investments, procurement, infrastructure development, and associated economic activities.

The Government is projected to earn between USD 1 billion and USD 2.5 billion annually once commercial oil production begins. In addition, between FY2009/10 and 2025, the petroleum sector generated over USD 1.39 billion in government revenues

through taxes, licensing fees, bonuses, data sales, surface rentals, and training fees. The sector has also attracted substantial foreign direct investment (FDI), accounting for approximately 60 to 70 percent of Uganda's total FDI inflows since 2022.

b) Employment and Human Capital Development

Job creation is one of the most visible benefits of Uganda's oil projects. The sector currently supports approximately 22,000 direct jobs, 35,000 indirect jobs, and over 190,000 induced jobs across the economy. Ugandans account for about 89 to 90 percent of the workforce. More than 5,400 employees come from project host communities, ensuring that local populations directly benefit from petroleum developments.

The projects have also accelerated skills development. More than 14,000 Ugandans have received specialised oil and gas training through institutions such as Makerere University, Uganda Petroleum Institute Kigumba (UPIK), and other accredited training centres. Training has covered welding, scaffolding, mechanical and electrical maintenance, health and safety, heavy goods vehicle driving, quality assurance, and engineering disciplines. Internationally recognised certifications such as AWS, City & Guilds, OPITO, ECITB, and NEBOSH have enhanced the competitiveness of Ugandan workers.

Scholarship programmes, internships, graduate trainee schemes, online learning platforms, the Tilenga Academy in Uganda, and the EACOP Academy in Tanzania are building a skilled workforce capable of supporting the petroleum industry and other sectors of the economy.

c) Enterprise Development

Uganda's oil projects have deliberately prioritised participation by local businesses. PAU approved contracts worth approximately USD 7.4 billion, of which USD 2.3 billion, representing 30%, have been awarded to Ugandan companies. The sector has also strengthened domestic enterprises through extensive capacity-building programmes. More than 4,000 small and medium enterprises (SMEs) have been trained in health, safety and environment practices, bid preparation, financing, quality management, and

corporate governance. This has improved the ability of Ugandan firms to compete for contracts both within and beyond the oil and gas industry.

To enhance technology and knowledge transfer, Ugandan companies have formed partnerships with experienced international firms. 65 joint ventures have been approved securing contracts worth approximately USD 338.8 million. These partnerships are helping Ugandan companies gain technical expertise, operational experience, and exposure to international standards.

d) Infrastructure Development and Industrialisation

The oil and gas projects have stimulated major investments in strategic infrastructure that will benefit Uganda long after oil production begins. Key developments include 700kms of roads, bridges, electricity networks, water systems, information and communications technology infrastructure, and the upgrading of aviation facilities. These investments are improving connectivity, reducing transport costs, and supporting broader economic development.

The planned refinery and petroleum-based industrial park will further support industrialisation by creating opportunities for petrochemical industries, manufacturing, and value-added production. Availability of refined petroleum products within Uganda is expected to improve energy security, reduce import dependency, and stimulate downstream industries.

e) Broader Socio-Economic Impact

Beyond direct petroleum activities, the sector is generating linkages across agriculture, manufacturing, tourism, education, transport, health, and financial services. Demand for goods and services by oil companies has expanded opportunities for suppliers, contractors, hospitality businesses, training institutions, and transport operators.

In addition, petroleum companies and contractors have supported community development initiatives through corporate social responsibility programmes, contributing to education, healthcare, water access, and livelihood improvement projects in host areas. Infrastructure improvements are also creating long-term benefits for local communities and regional trade.

8. CHALLENGES AND RISKS

Despite achievements and progress made, Uganda encountered some challenges that affected the delivery of some planned outputs. These included:

- a) Inadequate funding of the Government activities which requires with engagement the Ministry of Finance, Planning and Economic Development to secure the funding required and consider funding outside Government appropriations.
- b) Delays in the Implementation of Key Sector Projects: Progress on critical readiness activities across Tilenga, Kingfisher, EACOP and supporting infrastructure remained below the level required, notwithstanding recovery measures introduced by the operators. Recent Pandemics (COVID, Ebola), and global supply chain and geopolitical conditions continued to affect delivery of specialised equipment and mobilisation of international contractors.
- c) Non-compliance with regulatory frameworks: Instances of non-compliance persisted in national content, including undeclared personnel, unfavourable contract terms for nationals and delayed payment of contractors and suppliers.
- d) Staff retention: Sustained turnover in a period of intensified sector activity risks the loss of specialised institutional knowledge in Government that is costly to rebuild. Government needs to strengthen its value proposition for staff, including keeping remuneration within market range, in order to retain and attract the technical skills its mandate requires.
- e) Negative Activism against the Sector: Between 2021 and 2024, there is growing activism towards the management of environmental and social aspects related to the development and management of the oil and gas sector, specifically the EACOP project. This presented a risk of delaying the implementation of the projects and financial closure due to disruptive activities and public animosity by these activists. Dissemination of the correct information and building relations with the different stakeholders must and will be intensified to enable improved understanding and appreciation of the sector, and this requires adequate and timely funding.

9. PRIORITY ACTIONS FOR NAMIBIA

Ahead of first production, Namibia should prioritize:

9.1 Short-Term Priorities (0–3 years)

- a) Review all petroleum legislation.
- b) Strengthen regulatory institutions.
- c) Finalize local content implementation frameworks.
- d) Enhance environmental oversight.
- e) Develop petroleum data management systems.
- f) Build skills development programs.
- g) Establish robust production monitoring capability.

9.2 Medium-Term Priorities (3–7 years)

- a) Develop downstream industries.
- b) Establish petroleum-linked industrial clusters.
- c) Expand technology transfer programs.
- d) Strengthen sovereign wealth management.
- e) Develop gas utilization strategies.
- f) Promote economic diversification.

9.3 Implementation Framework

Implementation should follow an integrated sequence. First, Namibia should establish strong institutions with clear mandates, an independent regulator and a skilled workforce. Second, it should maintain a predictable legal and fiscal framework supported by transparent licensing, contracting and enforcement. Third, local content, small-enterprise development, skills transfer and technology transfer should be aligned with realistic domestic capacity. Fourth, environmental protection, safety management and petroleum data governance should be embedded in every project phase. Fifth, transparent revenue collection and sovereign wealth management should channel petroleum income into productive infrastructure. Finally, petroleum policy should support industrialisation, energy security, diversification and intergenerational wealth creation.

10. CONCLUSION

Namibia stands at a defining moment in its economic history. Its petroleum discoveries offer substantial opportunities for growth, industrialisation, job creation and fiscal

development, but international experience shows that petroleum wealth produces lasting prosperity only where institutions are strong, laws are sound, fiscal management is prudent and oversight is effective.

Uganda's experience demonstrates the value of early capacity building, institutional separation, sector-specific legislation, local content development, stakeholder engagement and disciplined petroleum revenue governance. These lessons should be adapted to Namibia's offshore operating environment, existing institutions, fiscal priorities, labour market and long-term development strategy rather than copied mechanically.

As Uganda approaches production, Government recognises that success will also be measured by the value Uganda retains; how many Ugandan enterprises advance into higher-value activities; which new industries emerge; how many Ugandans acquire advanced technical and managerial capabilities; how effectively petroleum investments strengthen the national energy system; and how much knowledge becomes embedded within national institutions.

The central lesson is that success will depend not only on the volume of petroleum produced, but also on the quality of the institutions governing the sector. By completing legal and regulatory preparations before first production, developing domestic capability, protecting communities and ecosystems, and investing revenues transparently, Namibia can turn petroleum resources into a platform for long-term national value and sustainable prosperity for future generations.