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Reassessing Oil in Uganda

How Do Investments in Uganda's Oil Industry Stand Up in an Accelerating Global Transition?

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Key Findings

Uganda's oil industry is delayed, over budget and likely to disappoint when it comes to returns.

Accelerated global decarbonization could mean the value of Uganda's oil falls as much as 34% for foreign investors and 53% for the country.

Investments in oil are unlikely to be a transformative driver of Ugandan development and could add significant risks to public finances.

Executive Summary

Three-and-a-half years after TotalEnergies, China National Offshore Oil Company, the Uganda National Oil Company, and the Tanzania Petroleum Development Corporation announced a final investment decision (FID) for the first phase of Uganda's new oil industry, construction is reportedly more than halfway complete, with more than USD6 billion already invested at the end of 2024.[1]

The project includes development of more than 1 billion barrels of oil at the six Tilenga oil fields, operated by TotalEnergies, and the Kingfisher field, operated by the China National Offshore Oil Company (CNOOC), as well as the construction of the 1,443-kilometer East Africa Crude Oil Pipeline (EACOP), which routes through Tanzania to the port of Tanga for oil export.

Oil has long been touted for its transformative potential on Uganda's economy, bringing a short-term boom in foreign direct investment, significant new government revenues, and trade balance benefits that could be amplified by a planned refinery project. However, project delays, cost overruns, and changes in global oil and energy markets since the FID mean that the project is likely to be a disappointment for investors and the Ugandan economy.

Questions have also been raised about the project's economic viability, given the accelerating global action on decarbonization. A 2020 analysis by non-profit Climate Policy Initiative's Energy Finance (CPI EF) team[2] found that delays had eroded 70% of the Ugandan oil industry's potential value and identified significant economic and financial hurdles to overcome before an economically viable proposition could be reached. This report provides an updated position on the issues addressed in the CPI EF 2020 report:

- Does it (still) make sense to proceed to oil production?
- What economic, financial and policy options do each of the key parties have?
- How might geopolitical volatility and a world grappling with intensifying climate change and an increasingly "disorderly" transition influence the value of those options?

The analysis identified three key findings:

Finding 1: Uganda's oil industry is delayed, over budget and its results are likely to fall well short of expectations.

At the time of FID, oil production was slated to start in 2025, but first oil now appears to have slipped until late 2026 or 2027.[3] The project's total construction cost is expected to be significantly higher than the initial budget, particularly for the EACOP. Recent public estimates put EACOP's likely cost at around USD5.6 billion, a 55% increase from the USD3.6 billion projected shortly before FID.

[1] We compiled this estimate from EACOP project company financial statements (East African Crude Oil Pipeline (EACOP) Ltd. Filing History. Accessed 6 December 2025) and the Uganda Bureau of Statistics (Uganda Bureau of Statistics. Oil and Gas Investment Statistics Report 2023. 2024).
[2] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.
[3] Mooney, A. and Schipani, A. Uganda targets 2027 start for world's longest heated oil pipeline. 2025.

Over the same period, oil markets and the global economy have also gone through a period of significant volatility and structural change that has contributed to a lower long-term outlook for global oil prices than when the FID was made.

Russia's invasion of Ukraine threw global energy markets into turmoil. Prices of major energy commodities and products spiked significantly in 2022. Sanctions and the responses to sanctions have dramatically altered the shape of the global energy trade. Russia exports almost 15% less oil today than it did in 2022,[4] but the impact of reduced Russian supply has been outweighed by continuing growth in U.S. production; growth in areas such as Brazil and Guyana; and the unwinding of COVID-19-era output cuts from the OPEC+ consortium. This, combined with a weakened demand outlook caused by the impact of U.S. tariffs on global economic growth and plateauing demand in China caused by the rapid growth of electric vehicles, means the expected future oil price trajectory today is significantly below the trajectory at the time of the FID.

On top of construction delays, cost overruns and lower-than-expected oil prices that have all contributed to weakening project economics, the apparent difficulties in securing debt financing for EACOP will push returns down even more since shareholders will need to invest more in the short term than they had planned at FID.

Even in today's markets, TotalEnergies and CNOOC appear to achieve only modest returns above their weighted average cost of capital (WACC) and significantly less than typical targeted rates of return for the sector. Ugandan government revenues are also likely to be significantly less than expected.

Finding 2: Accelerated global decarbonization could mean the value of Uganda's oil falls as much as 34% for foreign investors and 53% for Uganda.

Although policy support for a global transition has been rolled back in some areas, the growth in uptake of electric vehicles, driven by China, continues to surpass analyst predictions. Future oil demand and prices may be significantly lower than the market currently expects, and lower prices would reduce Ugandan oil industry returns even more.

We modelled the impact of two global transition scenarios (the "moderate" transition scenario and the even faster "Net Zero Emissions (NZE)" scenario) on the cash flows of Uganda's oil fields and EACOP. In these scenarios, foreign private investments in Uganda's oil industry could end up being value-destructive (i.e. deliver a financial return lower than the companies' WACC over the life of the industry). However, expected returns on a point-forward basis (i.e., based on cash flows from 2025 onwards), would still be positive even in the global transition scenarios. TotalEnergies' stake, worth around 3% of its market capitalization in November 2025, would be worth 25% less in our moderate transition scenario and 34% less in the NZE scenario.

The uncertainty around which accelerated transition path is most likely to prevail highlights the increasing challenge that Uganda will face when predicting the future contribution of oil revenues to the economy and public budget. However, regardless of the scenario, Uganda risks losing a higher proportion of its

[4] U.S. Energy Information Administration. Russia's oil exports have decreased modestly since 2022, shifting toward Asia. 2025.

returns than the foreign oil companies. Our analysis shows the present value of Uganda's future revenues being 37% lower in the moderate transition scenario and 53% in the NZE scenario.

Uganda is more exposed to "climate transition risk" than foreign investors because of the ways in which the investors have agreed to split risks and rewards. Most of the industry's revenues accrue to foreign investors in the early years of production due to the agreement that allows those investors to recoup their investment costs, with Uganda standing to earn a growing share of oil industry profits over time. While this type of arrangement has historically been a typical approach to incentivizing foreign investors to put up the capital for the oil industry for developments, it leaves Uganda particularly exposed to the impacts of an accelerated global transition that it has little influence over.

Finding 3: Investments in oil are unlikely to be a transformative driver of Ugandan development and could add significant risks to public finances.

Since "commercially recoverable" quantities of oil were confirmed in Uganda in 2006, Ugandan officials have placed great store on the potential for the industry to spur economic transformation, including the public policy goal to reach upper middle-income status by 2040. The country envisioned an industry that would create tens of thousands of jobs, while domestic production liquid fuels and derivative products, such as petrochemicals and fertilizers, would reduce Uganda's dependence on imports. Meanwhile, oil revenues would be used to increase investment in new infrastructure and to invest for future generations. However, Uganda's weakening public finance position could severely limit the country's ability to achieve these goals, especially given the risks explored in this paper.

Uganda's sovereign credit rating was downgraded in 2024 by Moody's to B3[5] and Fitch to B.[6] At these weak sub-investment or speculative grade levels, the country could expect to face uncertain access to global capital markets, increasing its reliance on development partners. At the same time, the capacity of development partners is increasingly under pressure, especially as the U.S. seeks to reduce its contributions to multilateral institutions. The country's apparent attempts to negotiate a new International Monetary Fund (IMF) facility[7] highlights Uganda's increasing liquidity challenges and the rising amount of GDP being allocated for debt service payments. Deteriorating public debt sustainability creates a situation in which significant further delays or increased costs could lead to further downgrades that exacerbate economic and financial stability pressures.

First oil would bring the prospect of revenues that could partially alleviate liquidity challenges. However, uncertainty around the amount of oil revenues because of climate transition risk means that relying on them to safeguard public debt sustainability is an increasingly risky gambit. Any net benefits to Uganda from oil appear more likely to provide a short-term budgetary cushion than to drive economic transformation.

Our analysis also considers how the potential oil-related economic benefits and risks around an accelerated transition would be distributed. Uganda has created rules that grant almost complete control to the national government on the spending of oil revenues and which explicitly seek to manage the impact of oil-price cyclicality on public spending. Under the rules, 0.8% of the previous year's non-oil GDP

[5] Moody's Investors Service. Moody's Ratings downgrades Uganda's ratings to B3 from B2; changes outlook to stable. 2024.
[6] Fitch Ratings. Fitch Downgrades Uganda to 'B'; Outlook Stable. 2024.
[7] Reuters. Uganda says it is negotiating a new funding round with the IMF. 2025.

can be allocated to the annual budget for "infrastructure and development" projects, with the remainder allocated to a long-term investment fund.[8] In the base case, this means at least 30% of government oil revenues would be allocated to the fund. In our transition scenarios, however, the amount invested for future generations falls by up to 70%.

This implies that unless other oil projects are developed in Uganda, the windfall from the resources may be insufficient to capitalize an investment fund at a scale that would be transformational for the country. A faster global transition limits the potential for oil to drive sustainable improvement in development outcomes in Uganda. This position could further be eroded if Uganda pursues its current plans to build an oil refinery, as set out in our parallel paper *Climate-resilient development in Uganda: How a global transition and fiscal constraints could influence Uganda's development choices.*"

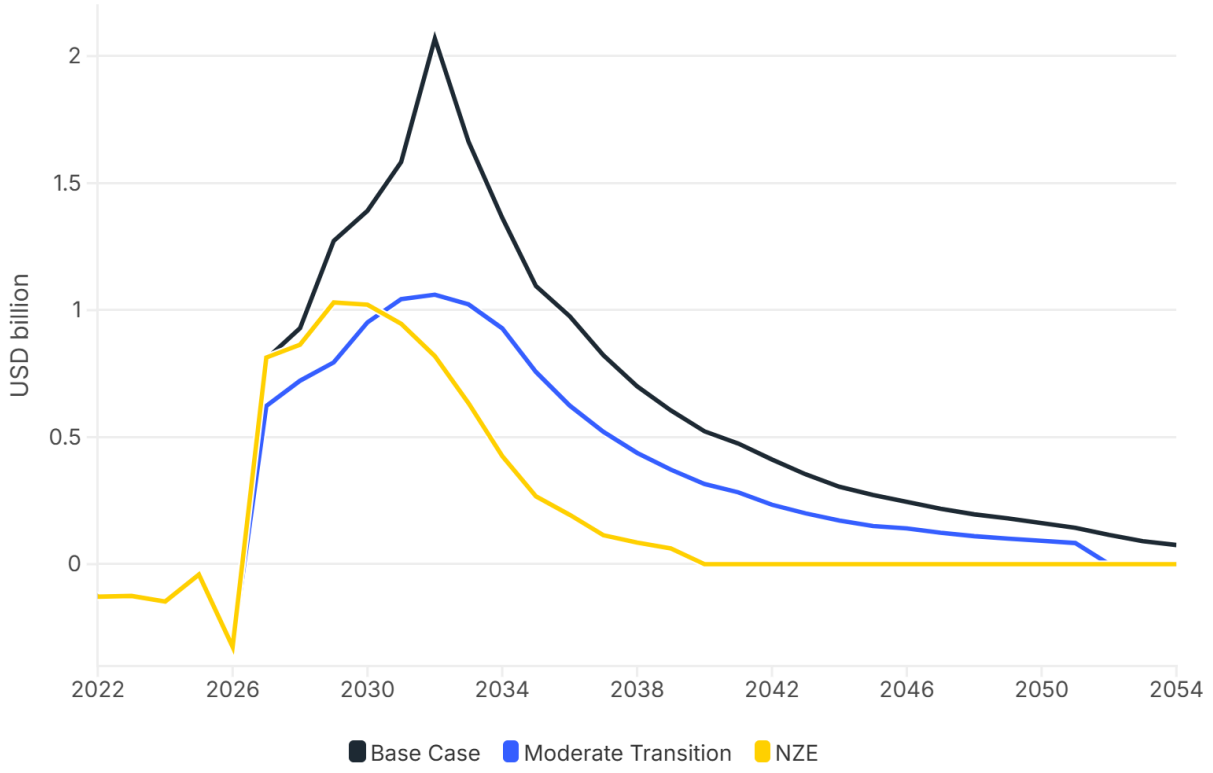
Uganda's published strategies for medium-term development[9] show bold ambition to industrialize the country in a sustainable manner, creating a virtuous circle of higher employment rates, income levels and quality of life. At a time of challenging global financial market conditions, monetizing Uganda's oil reserves may have seemed like a natural and even appropriate means for Uganda to take control of financing its development and reducing reliance on foreign donors.

If they were happening a decade ago, securing external financing for potential investments in Uganda's oil industry would have been more straightforward. However, structural changes largely outside of Uganda's control have made investments in the country's oil much less lucrative than expected. In addition, the amount that Uganda has been expected to contribute before earning any significant revenues has tripled. The commitment of ever-higher levels of investment (that could be dwarfed by a further potential USD1.8 billion planned for the refinery) for lower-than-expected economic returns will erode the potential for oil revenues to be a major driver of development outcomes. The investment could even backfire if climate, transition and other project-related risks weaken the country's sovereign credit rating before significant oil benefits can be reaped.

Further sovereign credit rating downgrades could create a vicious circle of capital outflows and rising debt costs of the sort experienced by many countries on the continent in the years after the COVID-19 pandemic. This scenario would reduce Uganda's fiscal flexibility and hamper the competitiveness of the country's growing industries, dampening long-run development prospects. Uganda would become more dependent on foreign intervention to support its development.

With the costs of investments in lower-carbon growth being driven down by accelerated global deployment rates, Uganda could profit from exploring alternative, more diversified ways of utilizing the public balance sheet, especially since the country will increasingly start to face pressure from the accelerating physical consequences of climate change. Our paper *Climate-resilient development in Uganda: Adapting fiscal strategies to a changing global transition landscape* compares the potential risks and returns that could arise from the oil refinery with a range of other potential investment priorities, including in climate resilience and electrification.

[8] Ministry of Finance, Planning and Economic Development. Charter for Fiscal Responsibility 2021-2026. 2022.
[9] Uganda has a range of strategic documents that cover a variety of different timeframes. The most relevant reference here is: The Republic of Uganda. Fourth National Development Plan (NDPIV) 2025/26 – 2029/30. 2025.



Institute for Energy Economics and Financial Analysis

1. Introduction

- Uganda is currently in the process of constructing new infrastructure that could help it produce more than 1 billion barrels of oil over three decades. It also plans to build a refinery that would produce liquid fuels from some of the crude and displace Uganda's largest source of imports, turning the country into a net exporter of oil
- The project, particularly the East African Crude Oil Pipeline (EACOP), has faced significant delays, financial setbacks and public opposition
- This report updates an analysis conducted in 2020 about economic viability of Uganda's oil industry in an accelerating and increasingly volatile global climate transition

In February 2022, senior representatives of TotalEnergies, China National Offshore Oil Company, the Uganda National Oil Company, and the Tanzania Petroleum Development Corporation gathered in Kampala with Ugandan President Yoweri Museveni to announce that they had made a final investment decision (FID) on a series of investments in Uganda's oil industry collectively known as the Lake Albert

development project.[10] The announcement arrived 16 years after the confirmation that the Lake Albert basin held "commercially recoverable" quantities of oil and almost three years after disputes between Uganda's key foreign investors brought the project to the brink of cancellation.

The FID announcement was accompanied by wide-ranging declarations about the transformative potential of oil for the Ugandan people. The construction phase for the two initial oil fields (Tilenga and Kingfisher) and the 1,443-kilometer export pipeline (the East African Crude Oil Pipeline or EACOP) to the Indian Ocean at Tanga, Tanzania, would bring as much as an estimated USD10 billion in foreign direct investment to Uganda and create more than 15,000 direct jobs. An FID for a new 60,000 barrels-per-day oil refinery was slated to follow shortly, an investment that would turn the biggest line item on Uganda's import bill—oil—into a net export, improving Uganda's energy security and positioning the country as a potential supporter of economic development elsewhere in East Africa. Finally, since the government would receive about 70% of the revenues from the sale of Uganda's oil, effective management could create a virtuous circle for the public balance sheet. The money would be used not only to plug budget deficits and reduce debt, but also to create a sovereign wealth fund (the Petroleum Revenue Investment Reserve or PRIR) to be invested for future generations.

Despite the potential for economic benefits, the development has faced opposition. Issues include potential environmental damage in the Lake Albert region and pipeline route; compensation for people displaced by the investments and those suffering human rights abuses; and the risks to other key Ugandan industries (such as agriculture and tourism) relating to oil project risks. In addition, an accelerating global transition calls the project's economic viability into question. A 2020 analysis by the non-profit Climate Policy Initiative's Energy Finance (CPI EF) team[11] found that delays in development had eroded 70% of the oil industry's potential value, and identified significant economic and financial hurdles for Uganda, Tanzania and foreign investors to overcome before an economically viable proposition could be reached.

This report provides an updated position on the same issues addressed in the CPI EF 2020 report.[12] Does it still make sense to proceed to oil production? What economic, financial and policy options do each of the key parties have? How might geopolitical volatility and a world grappling with intensifying climate change and an increasingly disorderly transition influence the value of those options?

The report summarizes analyses conducted using economic and financial models to estimate the cash flows of the Tilenga and Kingfisher oil fields (together referred to as the "upstream" assets), EACOP and the planned oil refinery in Hoima province. More details on the methodology used to construct the analysis are set out in Appendix 1 of this report.

The principal focus of the report is the assessment of how key uncertainties—particularly around potential future scenarios of the global oil market—could affect the Ugandan industry. The scenarios, constructed by the authors, reference key benchmarks for future oil prices (such as the International Energy Agency

[10] East African Crude Oil Pipeline. Final Investment Decision (FID) Announced. Accessed on 5 December 2025.
[11] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.
[12] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

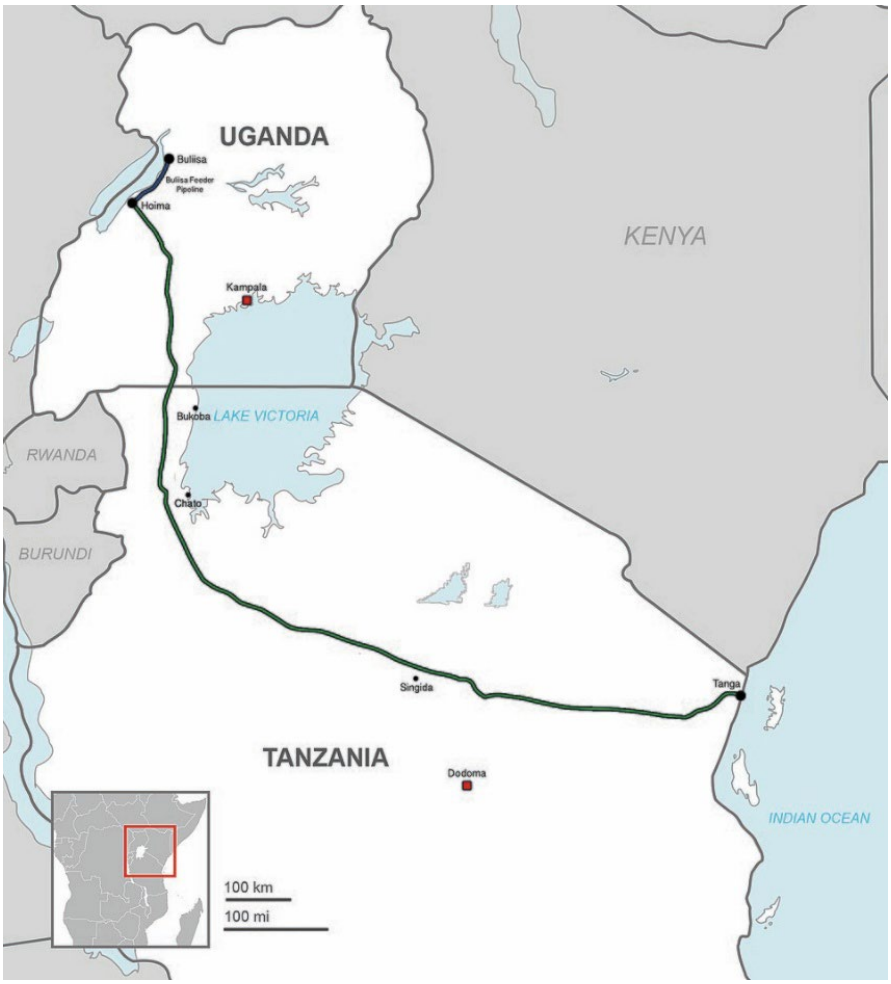
or IEA) in worlds with different levels of decarbonization and therefore account for major structural changes to the oil market since the publication of the 2020 report.

Structural changes since the FID was made include major oil supply growth outside the OPEC+ consortium (in the U.S., Brazil, and Guyana); changes in the nature of the global oil trade (principally relating to Russian oil, heavily sanctioned since Russia's 2022 full-scale invasion of Ukraine); and the volatility in global oil demand caused by the COVID-19 pandemic. However, perhaps the most significant factors for the Ugandan industry have been the dampened outlook for international trade spurred by recently imposed U.S. tariffs and the sharp acceleration in the uptake of electric vehicles (EVs), particularly in China. Structural change in the U.S. and China, the world's two largest oil consumers, the largest oil producer (the U.S.) and the dominant producer of most low-carbon technologies (China), is likely to drive a long-term shift in the curve of future global oil demand.

All other things being equal, lower demand would mean lower global oil prices, leading to lower profits and revenues for the Ugandan government. The country's producers would also sell fewer barrels in global transition scenarios if the price at which they can sell their oil falls below the cost of production. These dynamics mean that investments in Uganda's oil industry may not have the long-term positive transformative impact that the government hopes for.

As illustrated in Figure 1, Uganda's emergent oil industry is located near Lake Albert. The largest site, known as Tilenga, is at the northern end, while Kingfisher is at the southern end. Two central processing facilities (CPFs) near each zone are set to collect crude oil that would then be fed into a pipeline that takes it to the Kabaale industrial park near Hoima. A portion of output would be used as feedstock for a proposed refinery located at that industrial park. The rest would be transported southeast via EACOP for export through the Tanzanian port of Tanga. Other new infrastructure would include a pipeline network to distribute fuel products across the country, as well as storage facilities and other midstream infrastructure.

Figure 1: Map of EACOP Pipeline Route From Lake Albert Oil Fields to Tanga Export Point



Source: Wikimedia Commons[13]

Profits from the sale of Ugandan oil and oil products are expected to be split between the government and a range of foreign investors and lenders, according to range of legislative and contractual agreements. This "risk allocation," which is reviewed in this paper, is critical to understanding who benefits from the industry and, critically, who faces most risk in a faster-than-expected global transition scenario that results in lower oil demand and prices.

Some people hope that the oil developments under construction will spur the growth of a larger industry. Aside from the 1 billion barrels of oil resources set to be developed at Tilenga and Kingfisher, wider oil exploration in Uganda has identified a further 0.6 billion barrels that is potentially recoverable.[14] The government also continues to seek to attract investment in new exploration and is reportedly planning a new offering of exploration licenses.[15] These discovered resources and exploration could offer additional future production to supply EACOP and proposed refinery. However, the resources for which

[13] Wikimedia Commons. Uganda-Tanzania Proposed Pipeline. 2016.
[14] Petroleum Authority of Uganda. Uganda's Petroleum Resource Potential. Accessed on 20 November 2025.
[15] Reuters. Uganda says it will offer new oil exploration licenses next fiscal year. 2024.

development is already underway are likely to be the most technically and commercially viable. With no clear signs that investors plan to develop additional resources and exploration inherently uncertain, this report considers only the developments outlined above in its assessment of Uganda's oil industry.

The rest of this paper is split into three principal sections:

- **Section 2** includes the analysis of the impact of delays in the development timeframe, compared to the plan assumed at the time of the CPI EF 2020 report.[16] As set out in that report, delays were expected to lead to an erosion of economic value in the industry and a weakening of Uganda's negotiating position with foreign investors. This section explores those dynamics, plus the implications of cost inflation and lower-than-expected availability of project finance debt.

- **Section 3** focuses on the potential impact of a global transition materializing faster than currently expected by global oil markets and the Ugandan government. This section also explains why Uganda stands to lose more in this scenario than foreign investors.

- **Section 4** sets the results from sections 2 and 3 in the context of Uganda's weakened and weakening public finances. Amid Uganda's diminishing ability to bear economic risks, it appears increasingly unlikely that oil will be transformational for the economy or public finances.

Questions relating to the productivity of potential further Ugandan public investment in oil in an age of escalating climate risks are explored in a parallel paper, *Climate-resilient development in Uganda: How a global transition and fiscal constraints could influence Uganda's development choices.*

[16] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

2. Uganda's Oil Industry Mid-Development

- Construction on Uganda's oil fields and export pipeline is more than 50% complete, but first oil has been delayed from 2025 to 2026/27.
- Construction costs appear significantly above plan, with the pipeline expected to cost USD5.6 billion, compared with an estimate of USD3.6 billion shortly before FID. Lower-than-expected availability of project finance debt is another reason why shareholders have had to invest more in the project than originally expected.
- Delays, cost overruns, and limited availability of debt finance, combined with a softening long-term outlook for oil prices, mean returns from the projects are likely to be significantly lower than expected.

2.1. Introduction

Though significant sums had already been invested in "enabling infrastructure", such as roads and the Hoima airport, construction of the key parts of Uganda's oil industry began in 2022 following the FID. Since then, more than USD6 billion has been invested in the Tilenga and Kingfisher fields, EACOP, and related infrastructure.

The parties reached FID almost three years after seeming to reach an impasse. In August 2019, TotalEnergies and CNOOC had allowed a buyout option on early investor Tullow Oil to expire,[17] with no agreement on final commercial terms between the foreign investors and the Ugandan government. The CPI EF 2020 report[18] analyzed the potential areas where renegotiation was likely. The report highlighted the marginal economics of the upstream assets, given the high cost of EACOP and especially the decision to grant priority on crude sales to the planned refinery (which would reduce the number of barrels transported through EACOP and increase the effective cost of the pipeline to the upstream investors). The significant downside risks to profitability in an accelerated transition created further doubts about the project's economic viability. The authors of the 2020 paper contended that Uganda would need to offer a better commercial deal – made up of a higher expected share of value and/or a lower share of risk to expected returns – to secure the commitment of foreign investors. The paper also warned that further delay would likely weaken Uganda's negotiating hand.

Delay has seemingly been the one constant for an industry that still has not produced oil, almost 20 years after the industry was deemed to be commercially viable. This section sets out our analysis of the implications of the most recent delays (since the 2020 report) on the potential economic value of Uganda's oil industry. Factors such as materials cost inflation; the choice of an inflating EACOP tariff; and the acceleration of the global transition have depressed the value of the upstream assets. The apparent limited availability of project finance debt for EACOP has pushed down likely returns for foreign investors

[17] TotalEnergies. Uganda: Termination of the Agreement with Tullow. 2019.
[18] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

and Uganda since both have had to fund a higher proportion of the capital expenditure than planned. And as predicted, an apparent renegotiation of some commercial terms made before the FID has shifted some risk from foreign investors to the Ugandan government.

2.2. Delay and Materials Cost Inflation

On top of the substantial delays leading up to development approval, the project has been further delayed in construction. First oil from the Tilenga and Kingfisher fields is now expected in late 2026 or 2027[19] (our analysis assumes an early-2027 start date), a delay of as much as two years from the early 2025 start-up expected when the FID was made.

These delays will have a significant impact on both foreign investors and Uganda. The IMF's 2024 report on Uganda projected a single-year GDP growth boost of 5%, government oil revenue equivalent to 1.2% of GDP and a USD2.7 billion balance of payments contribution in the 2025/26 financial year (ending June 30, 2026).[20] Delay has deferred these potential gains, compounding wider economic and public finance challenges explored in Section 4. One major consequence of the recent delays is materials cost inflation. Expected construction costs for the upstream assets and EACOP have grown by 33% compared to pre-FID estimates of USD9 billion published late in 2021.[21] Most of the increase in construction costs relates to EACOP, where costs are now estimated to have increased by at least 55%.

Table 1: Capital Investments in Uganda's Oil Fields and EACOP, 2022–24, USD Millions

	2022	2023	2024	Total through 2024
Upstream	729	1,232	1,558	3,520
EACOP	797	810	982	2,588
Total	1,526	2,042	2,540	6,108

Source: Project company accounts,[22] [23] [24] Uganda Bureau of Statistics,[25] TotalEnergies EP Uganda accounts[26]

A precise accounting of the drivers of cost inflation is not possible based on public information but is likely to have been mostly caused by a sharp increase in the cost of materials such as steel (driven by the COVID-19 recovery and war in Ukraine). The delayed construction timeline, perhaps caused by protracted negotiations around the availability of project finance debt, will also have caused increased financing costs and overheads. Construction costs that exceed FID estimates mean lower economic and

[19] TotalEnergies. 2025 Strategy & Outlook. 2025.
[20] International Monetary Fund. Uganda Article IV Consultation – Press Release; Staff Report; And Statement by the Director for Uganda. 2024.
[21] Petroleum Authority of Uganda. The Oil and Gas Sector opens up opportunities for Ugandans. 2025.
[22] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2022. 2023.
[23] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2023. 2024.
[24] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2024. 2025.
[25] Uganda Bureau of Statistics. Oil and Gas Investment Statistics Report 2023. 2024.
[26] TotalEnergies EP Uganda. Auditor's Report on the Annual Financial Statements. Financial Year Ended 31 December 2024. 2025.

financial returns for all parties. We summarize the implications of this, as well as the other factors set out below, in Section 2.6.

2.3. EACOP Financing Challenges

The use of limited recourse project finance debt had been a key plank of the financing strategy for Uganda's oil industry. Financing 60% of EACOP's construction cost with debt, as originally planned, would have limited the initial investment required by the pipeline company's shareholders (the foreign investors, Uganda National Oil Company (UNOC) and the Tanzanian government) to 40% of the total capital cost. A construction phase limited recourse structure, which would have shared or allocated in full to contractors the responsibility for cost overruns, would have provided more certainty for the shareholders about the maximum amount they could be required to invest. However, despite a range of fiscal incentives provided to try to secure lenders, EACOP shareholders appear to have carried the full capital investment until the signing of debt facilities in early 2025.

Structuring the financing of the EACOP project had always been a delicate balancing act. Once earlier negotiations around a potential export route through Kenya had been discontinued, Tanzania, a shareholder in the pipeline but without an interest in Uganda's oil, could have extracted a relatively high price via taxes or a high EACOP tariff. However, high levels of taxes in the EACOP company would weigh on the company's profitability and attractiveness to lenders.

Setting the tariff too high, which would reduce the effective price to be paid for the oil at the point of production, could challenge the viability of the project, especially in an accelerating global transition. Ultimately, the increasingly marginal nature of the Ugandan industry's economics and the threat by foreign investors to pull out of the project appears to have forced concessions on both the Ugandan and Tanzanian sides. Tanzania waived a planned transit tax.[27] and Uganda provided for a 10-year corporation tax holiday.[28] Certainty for foreign investors would be provided by the codification of provisions relating to EACOP in a shareholder agreement and the Ugandan EACOP (Special Provisions) Act in 2021. The final EACOP tariff was set at USD12.77 per barrel transported through the pipeline, rising with inflation, in theory resulting in a stable margin—and the ability to repay debt—over the life of the pipeline.

Despite these concessions, EACOP did not secure project finance debt prior to construction. The failure to secure financing means that EACOP shareholders have invested significantly more capital and taken on significantly more risk than expected at FID, further reducing their anticipated returns.

To date, EACOP appears to have raised only USD1.2 billion of debt,[29] while shareholders have committed more than USD2.6 billion of equity. The USD1.2 billion figure falls far short of the total USD2.2 billion in construction debt expected prior to FID (60% of the planned USD3.6 billion spend) and the USD2.7 billion expected per the most recent estimates for the project (48% of USD5.6 billion total spend).[30] It is unclear whether further bank debt commitments will be forthcoming, especially during the risky construction phase. According to the EACOP company's 2024 financial statements, which state that USD755 million of financing was disbursed in March 2025, sufficient financing has been secured to complete construction

[27] East African Crude Oil Pipeline. Presidents Musuveni, Magafuli lay foundation stone for crude oil pipeline construction. 2020.
[28] The Republic of Uganda. The East African Crude Oil Pipeline (EACOP) (Special Provisions) Act, 2021. 2021.
[29] The East African. How EACOP sponsors finally got $5bn financing sewn up. 2025.
[30] Banktrack. Over budget, delayed and dangerous. The East African Crude Oil Pipeline Limps On. 2025.

including “additional facilities … signed with the parent companies”. [31] The use of the word “facilities” could imply shareholder debt intended to be refinanced or repaid later via a future injection of debt from other sources (i.e., from banks, export credit agencies, or other entities). This is more likely once construction is complete, and the project is deemed less risky.

It is not possible to be definitive about the reasons for the non-shareholder financing shortfall. Higher-than-expected construction costs will have weakened the attractiveness of the project to lenders on pure creditworthiness grounds, despite a creditor-friendly, inflation-linked tariff. Growing awareness of the project’s environmental risks is also likely to have been a relevant factor. The increasingly onerous requirements for banks and insurers in relation to climate-related financial risks will also have created extra complexity in the due diligence process.[32] According to a report from non-profit Banktrack, 43 banks have committed not to finance the project,[33] while thirty insurers and reinsurers have stepped back from the project.[34] If shareholders were unable to obtain sufficient insurance coverage in the market, it would mean that they could be forced to self-insure, possibly using captive insurance vehicles to pass risk (directly, or bundled with other types of risks) to reinsurance markets.

The additional risk that EACOP shareholders have taken on (through higher costs and equity contributions relative to pre-FID expectations) will have been much more material for UNOC and Tanzania Petroleum Development Corporation than for TotalEnergies and CNOOC. While the foreign investors, with investment grade credit ratings, have easy access to debt capital markets, shareholder governments in Uganda and Tanzania, with sub-investment grade ratings, have faced declining creditworthiness in recent years that has pushed up the cost of new borrowing and limited their ability to borrow. If no more debt financing is available during the construction phase, Uganda and Tanzania’s total equity contribution for the pipeline will be USD675 million each, more than three times the USD210 million each was to contribute under the original plans. To raise the money, they likely would need to increase government borrowing and/or divert funds from current budget priorities.

2.4. Volatility and Structural Change in the Global Oil Market

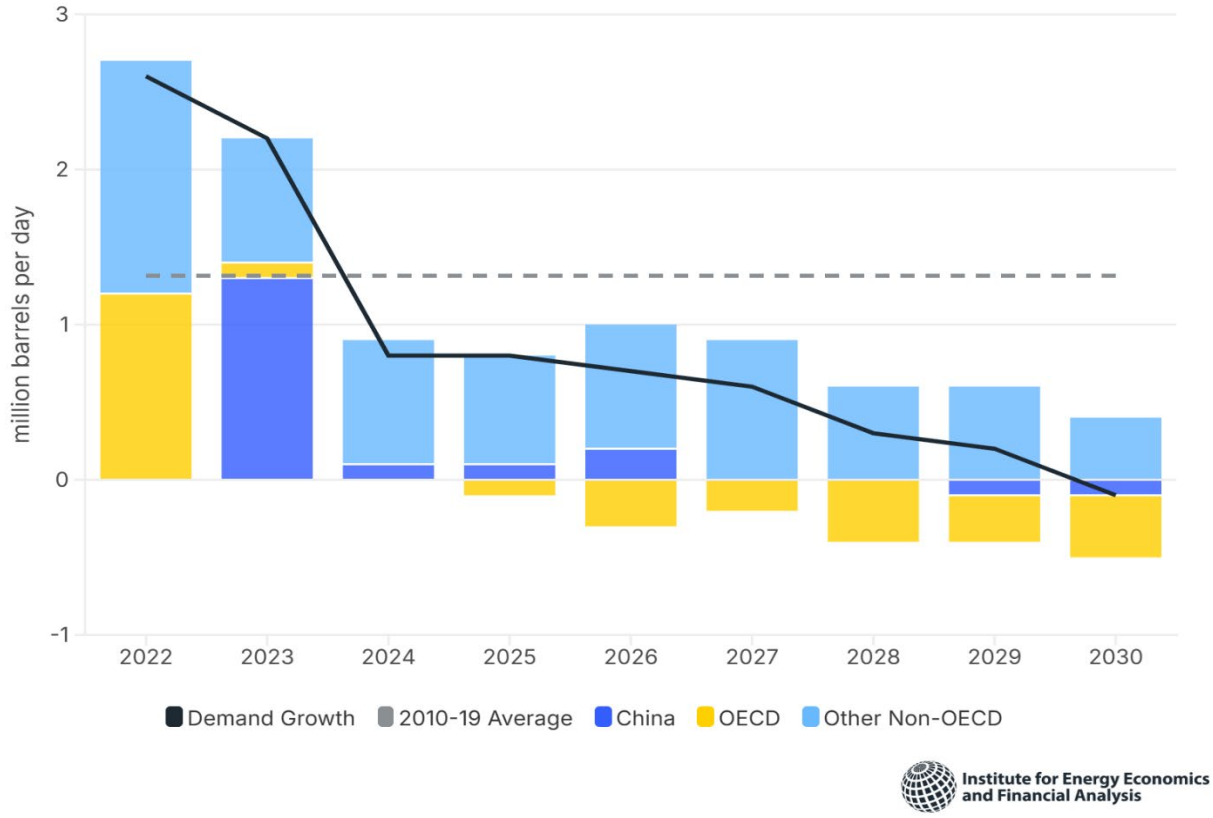
Structural change in the global oil market has also pushed down expected returns from Ugandan oil. The sector’s profitability will be particularly exposed to prices in the five years after first oil since those are the years when the Tilenga and Kingfisher fields will be ramping up and producing their maximum output before entering long-run decline.

Short-term energy commodity prices experienced huge volatility through the COVID-19 pandemic and Russia’s invasion of Ukraine. However, the longer-term outlook for global oil demand has been dampened by policy and technology deployment supporting a low-carbon transition, particularly the scale-up in the deployment of electric vehicles, primarily in China. More recently, the imposition of widespread tariffs by the U.S. has weakened the outlook for global trade and economic growth, putting further pressure on global oil consumption.

[31] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2024. File downloaded from Companies House filing history page on 6 December 2025.
[32] Elderson, F. Banks have made good progress in managing climate and nature risks – and must continue. 2025.
[33] Banktrack. Over budget, delayed and dangerous. The East African Crude Oil Pipeline Limps On. 2025.
[34] Ibid.

China has been the engine driving global oil demand growth for more than 20 years, but this appears to be ending. The country's domestic deployment of electric vehicles has rocketed over the last five years as the country has sought both to reduce its reliance on imported fuels and to build a large and sustainable car industry that can compete in markets such as Europe. The EV share of the Chinese car market grew from 6% in 2020 to 48% in 2024.[35] This has already led to a peak in transport fuel demand; China now expects its overall oil demand to peak in 2027.[36] As shown in Figure 2, oil demand that continues growing in other emerging markets beyond 2030 is unlikely to make up for the loss of Chinese demand growth. This means further slowing of the global oil demand growth rate, which had already fallen below the average in the decade before the COVID-19 pandemic. The IEA expects global oil demand growth to drop to zero by 2030, before entering decline, driven primarily by electrification in transport and other industries.

Figure 2: Annual Oil Demand Growth, 2022–30



Source: IEA.[37] Authors' analysis

Abundance of supply has further depressed the market outlook. While sanctions have somewhat reduced Russia's oil output since its invasion of Ukraine in 2022, growth in the U.S. (the world's largest producer since late 2018) has continued and 2025 production continued to set records. Lower prices in 2026 are

[35] International Energy Agency. Global EV Data Explorer. Accessed on 20 November 2025.
[36] Reuters. China oil demand to peak in 2027, up 100,000 bpd this year, state researcher says. 2025.
[37] International Energy Agency. Oil 2025. Accessed on 20 November 2025.

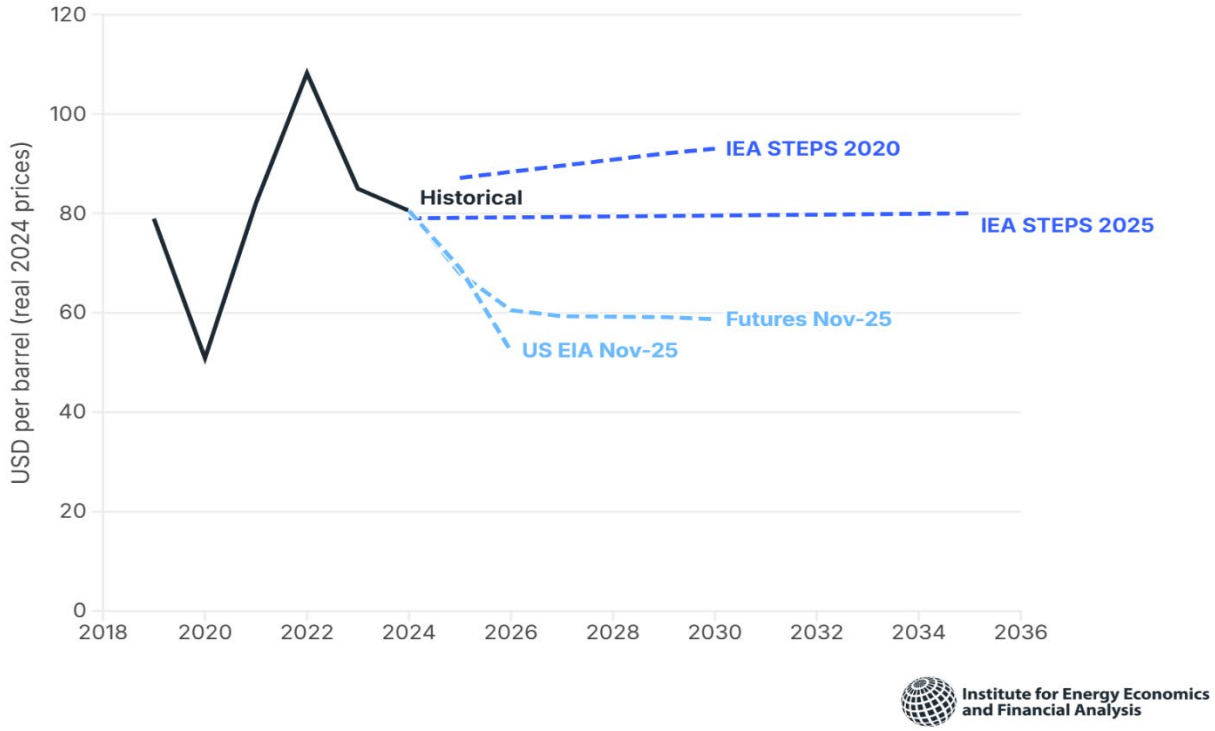
forecast to temper U.S. output slightly next year (U.S. shale output is relatively responsive to price signals) but most analysts do not expect significant declines in the country's production this decade. At the same time deepwater oil developments in Brazil and Guyana are projected to drive continued output growth in the Americas.

On top of the impact of supply growth in the Americas, the OPEC+ consortium, which has lost market share in recent years through efforts to prop up prices, has started unwinding 2.2 million barrels per day of previous voluntary output cuts from eight of its members. Expectations of a supply surplus in 2026, which the IEA forecasts at around 4% of demand,[38] will put downward pressure on global oil prices. Although OPEC+ has more recently looked to support market expectations by pausing output increases in Q1 2026, another 3.65 million barrels per day of its previously imposed cuts are set to expire by the end of 2026.[39] The existence of spare production capacity in OPEC+ countries and their likely desire to reclaim market share could put a cap on medium-term prices.

The futures market expects prices to fall to about USD60 per barrel (real 2024 USD) by 2027 and remain stable through 2030. This represents a significantly lower trajectory compared with the position at the time of the CPI EF 2020 report[40] and even compared to the position when FID was taken in early 2022. The IEA's 2020 STEPS scenario (which can be considered a base-case equivalent as it represents a market outlook based on global policies and strategies announced and in the process of implementation) suggested oil prices would climb past USD90 per barrel (real 2024 USD) by 2030. Lower long-term demand expectations mean that IEA's 2025 outlook now sees 2030s prices at around USD80 per barrel (real 2024 USD).[41] Markets appear to expect lower prices still, and some agencies such as the U.S. Energy Information Administration (U.S. EIA) expect short-term prices well below USD60 per barrel.[42] Lower price expectations mean the expected value of Uganda's oil output has therefore decreased significantly for investors and the government, compounding the factors set out in the previous subsection.

[38] Reuters. World oil market faces even larger 2026 surplus, IEA says. 13 November 2025.
[39] Reuters. OPEC+ pauses oil output hikes beyond December amid glut fears. 2 November 2025.
[40] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.
[41] International Energy Agency. Oil 2025. Accessed on 20 November 2025.
[42] U.S. Energy Information Administration (US EIA). Short-Term Energy Outlook. Accessed on 20 November 2025.

Figure 3: Real Brent Crude Oil Price Projections



Source: IEA, Market data, US EIA, Authors' analysis

2.5. Renegotiation of Commercial Terms Pre-FID

Delays in reaching agreement with foreign investors, finally announced on 1 February 2022, weakened Uganda's negotiating hand. As well as the dynamics set out in the previous section, the early 2020s saw a weakening of Uganda's economy, buffeted by the COVID-19 pandemic. With public debt-to-GDP increasing by almost 10 percentage points between 2020 and 2022,[43] the prospect of billions of dollars in oil revenue may have seemed increasingly important for budgetary stability. As with the EACOP tariff and the measures set out in Section 2.3, we believe that the Ugandan government may have made further compromises, to secure the commitment of TotalEnergies and CNOOC.

Final executed versions of the production sharing agreements (PSA) with foreign investors have not been disclosed publicly by the Ugandan government since the FID, despite the attorney general's decision that the government is free to release the PSAs to meet its commitments to the Extractive Industries Transparency Initiative (EITI).[44] But the published accounts of parliamentary discussions suggest that the

[43] World Bank Group. Central government debt, total (% of GDP) – Uganda. Accessed on 6 December 2025.
[44] The Independent. Uganda's Attorney General accepts disclosure of oil contracts. 2024.

final PSAs have increased cost recovery limits[45] compared to the earlier published drafts that informed this analysis and the analysis in the CPI EF 2020 report.[46]

Increasing cost recovery limits would reduce risks to investors by increasing their share of production in the early years of the project, deferring Uganda's returns further into the future. The government has also implemented measures that could have the opposite effect (i.e., measures that would reduce foreign investor returns and increase Ugandan ones, in certain circumstances). Amendments to the country's Income Tax Act passed in 2021 added a 15% windfall tax on the profits of foreign investors at times when global oil prices exceed USD75 per barrel.[47] But while such measures may have seemed like a balanced package of amendments when agreed, lower price expectations could significantly change the picture, with less expected revenue from the windfall tax. Publication of the final PSAs would help everyone seeking to analyze the potential economics of the project to develop a more definitive position.

2.6. Negative Impact on Expected Financial Returns

Higher total costs and a weaker outlook for oil prices have reduced the expected value of the Ugandan oil industry, compared to pre-FID expectations. Lower-than-expected availability of project finance debt may have further weighed on the expected returns of EACOP shareholders. Of all the key parties, the Ugandan government— with economic exposure to oil, obligation to fund pipeline capital expenditures, and a weak sub-investment grade sovereign rating—is the most exposed. Renegotiating commercial terms in favor of foreign investors could further reduce Uganda's returns, with TotalEnergies and CNOOC benefiting. Here, we review the potential impact, compared with the analysis set out in the CPI EF 2020 report.

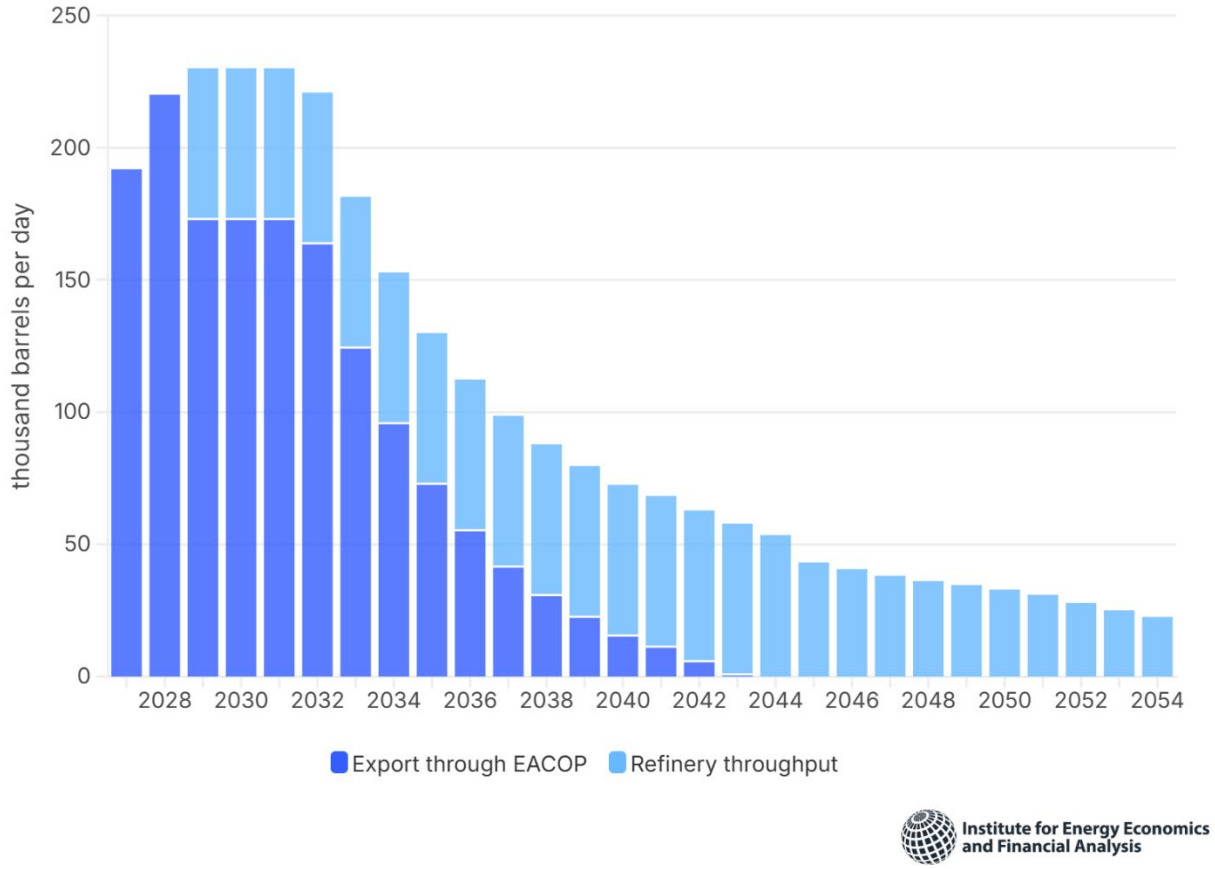
To carry out our analysis of Uganda's oil industry and the global transition scenario modelling summarized in Section 3, we used financial models in two principal steps. First, we projected cash flows of each key asset in the industry. Then we determined the allocation of value and risk between key players, a key step in determining the economic viability of the investments for parties with very different objectives. We modeled the EACOP project separately but based on the expected output of the upstream assets.

We used the analysis from the CPI EF 2020 report[48] and other public sources to estimate the following key variables in relation to Ugandan oil: a) the maximum potential production and decline rate; b) the capital costs at the upstream fields and processing facilities; c) the operating and financing costs for the upstream projects; and d) the extent to which Ugandan oil's waxiness is likely to affect the price that buyers on the global market will be willing to pay for the crude. The EACOP tariff is the final major cost component for crude sold on the global market. We assume that the refinery is built and operational from 2029, and has priority access to domestic crude.

In our base case, Uganda would sell a little more than 1 billion barrels of oil from the Tilenga and Kingfisher fields, with production starting in 2027, plateauing at around 230,000 barrels per day from 2028 to 2032, and then declining until production becomes uneconomic in 2054.

[45] Parliament of Uganda. Minority Report on The East African Crude Oil Pipeline (EACOP) (Special Provisions) Bill, 2021. 2021.
[46] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.
[47] The Republic of Uganda. Income Tax Act. Accessed on 20 November 2025.
[48] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

Figure 4: Projected Ugandan Oil Production, by End Market, Thousands of Barrels per Day



Source: Authors' analysis

In our model, the assessment as to whether production is economic is made annually, based on revenues and operating costs of the fields. At the point when operating costs exceed investor revenues for all future years, we assume that it makes more sense for everyone involved at that time to stop production and decommission the facilities. The average supply cost of Ugandan crude is between USD25 to USD30 per barrel in 2024 prices, including almost USD13 per barrel of EACOP costs, with the rest relating to upstream production. Revenues per barrel at the point of production (the key metric for the terms in the production sharing agreements) are estimated at the Brent price in any given scenario, less the Ugandan crude quality discount and less the EACOP tariff.

A comparison of the position today compared with the CPI EF 2020 assessment of oil upstream value (that assumes the FID taken in 2021 and uses a 10% discount rate),[49] shows that Ugandan oil is expected to be worth almost 20% less over its lifetime than set out in the previous report (USD14.6 billion present value from 2020 vs. USD18 billion). The reasons for this decline are the delays in reaching FID and in construction, and the lower long-term oil price outlook.

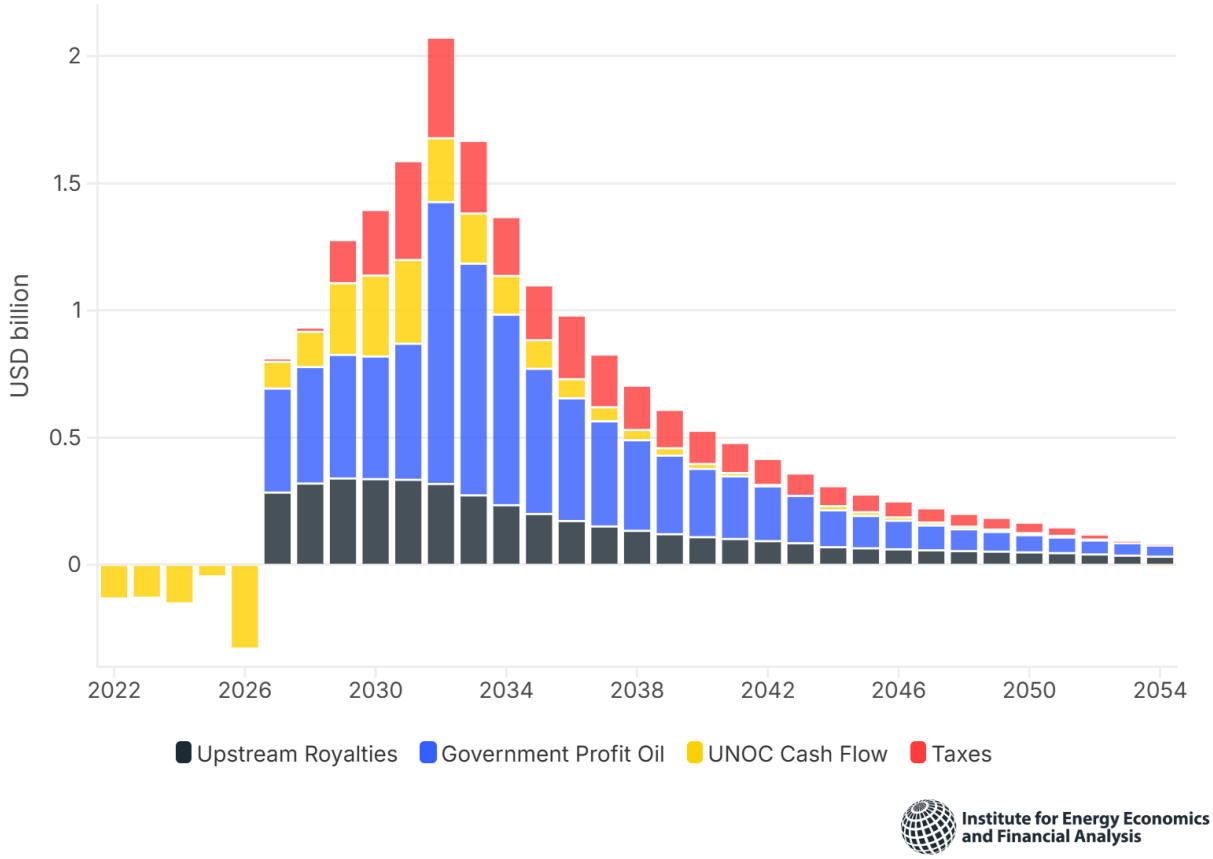
[49] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

Cost inflation and delays add to the lower value of the oil assets when we consider the investor perspective. When applying the risk allocation based on our understanding of how commercial and financing issues have played out, TotalEnergies and CNOOC now stand to make returns (internal rate of return or IRR) across the whole project lifecycle of 10% and 13%, respectively. These are lower than the minimum returns ("hurdle" rate) that would have been expected when making the FID, though higher than their weighted average cost of capital. The fact that expected project returns can fall significantly below expected levels only three years after FID highlights the riskiness of the investment decision and suggests that further deterioration of the project economics cannot be ruled out.

However, based purely on the expected project cash flows and returns, there does not currently seem to be any incentive for the investors to stop construction before first oil. Since the project is more than half finished and a significant portion of capital has already been invested, the valuation of the different players' stakes appears rosier on a point-forward basis (i.e., based on cash flows from 2025 onwards). On that basis, foreign investor upstream interests here have a present value of USD7.4 billion (using a 10% discount rate for consistency).

The value of revenues that Uganda would stand to earn (through royalties, profit oil, taxes and UNOC equity cash flows) is meaningfully higher—USD9.6 billion—because Uganda's share of upstream capital expenditure is funded up front by those investors. However, the value to Uganda is less than half of that projected in the base case of the CPI EF 2020 report (when valuing both from 2020 for consistency). Uganda will also accrue its share of value later than investors due to the cost recovery provisions of the PSA. The country's peak revenue comes in 2032, three years later than for the investors. An increase in the cost recovery limit from 60% to 70% (an assumed increase modelled to assess potential impacts as the details remain confidential as per Section 2.5), would mean more than 10% of the revenues it stands to earn before 2030 are deferred. This both lessens the contribution that the oil industry would make to near-term public finances and makes the country more exposed to climate transition risk, meaning it stands to lose out more than foreign investors if the global transition accelerates beyond current expectations.

Figure 5: Base Case Projected of Ugandan Government Cash Flows, by Revenue Type, Real 2024 USD Billions



Source: Authors' analysis

3. Uganda's Oil Industry and Climate Transition Risk

- Despite growing uncertainty around certain national climate commitments, markets have consistently underestimated trends in the deployment of low-carbon mobility, especially in China. This means that oil markets are likely headed for a faster low-carbon transition than oil markets are factoring in today
- In our global transition scenarios, TotalEnergies and CNOOC returns (net present value from 2025 onwards) stand to be between 25% and 34% lower than in the base case scenario
- In the same scenarios, Uganda could lose as much as 53% of its expected value. The country's higher exposure to climate transition risk is a result of the ways in which it has agreed to share oil price and production risks with foreign investors

3.1. Introduction

Donald Trump's second term as U.S. president has appeared to bring with it an antagonistic approach to climate policy and a more mercantile approach to international relations. Sharp cuts in U.S. aid commitments have negatively affected many countries in the global south, including Uganda. These changes have compounded the recent impacts on poorer countries' economic resilience from global energy price volatility and rising US interest rates. Shrinking fiscal space has constrained the ability of many to invest across themes from climate resilience and energy access to broader social infrastructure. However, these dynamics are unlikely to have made a significant impact on global oil demand, due to the relatively modest energy consumption in many of the most affected countries.

Projections for future oil demand will be affected to a much greater degree by dynamics in the regions that are currently the largest consumers. U.S. tariffs that affect global trade could curb growth and oil consumption. Some countries are accelerating the shift to electric mobility required to reduce economic exposure to volatile global fossil fuel markets. Given the prospect of continued geopolitical volatility, there is little to suggest that trends in the deployment of low-carbon mobility will change significantly, at least in China and in advanced, non-producing economies.

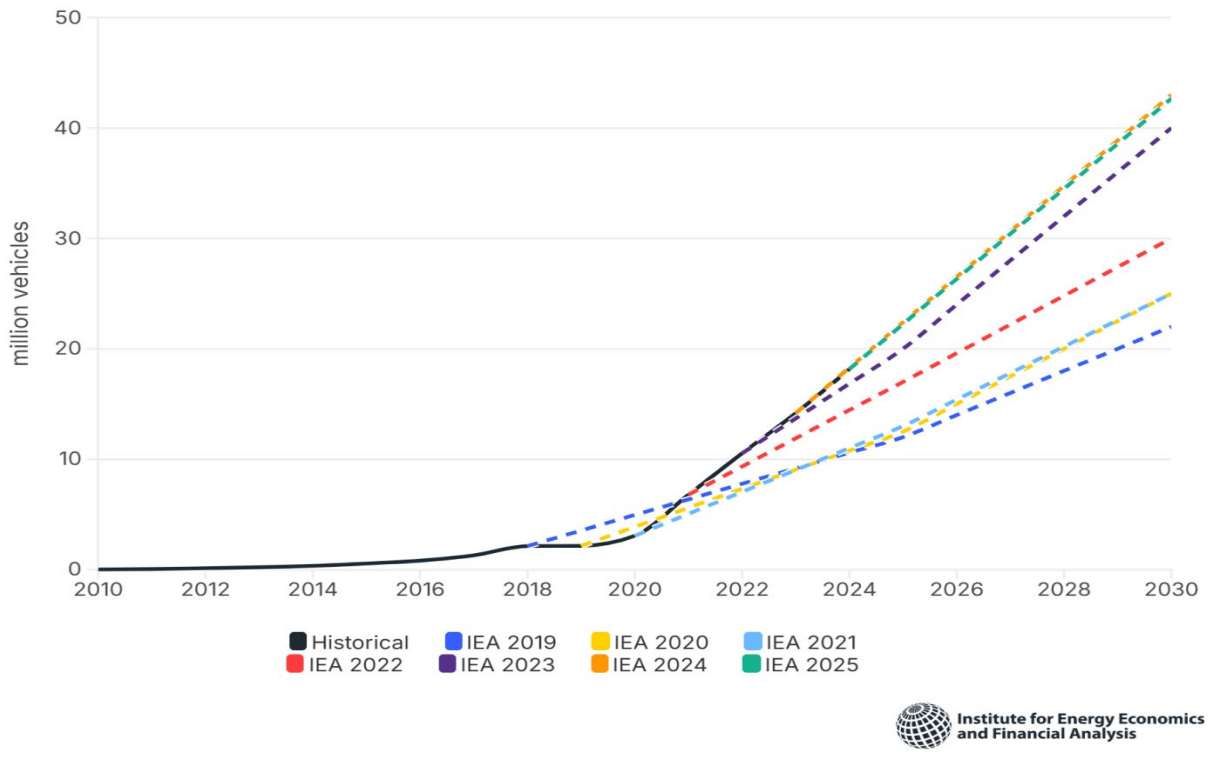
Meanwhile, there remains consensus among the world's central banks and increasingly, finance ministries, that climate-related financial risks (physical and transition risks) are material and need to be managed actively by banks and insurers. Climate transition "risk" can be an upside or downside, depending on the sector. However, in the oil sector, this is commonly understood to be the risk that lower-than-expected prices hit the value of physical and financial assets, tax flows, jobs and know-how as global decarbonization starts to put pressure on oil demand.

3.2. Global Climate Transition Scenarios

As discussed in Section 2.4, analysts and markets are increasingly incorporating transition dynamics into their outlook for the oil sector, but most have consistently underestimated the rate of change.

The technology diffusion-based prediction models that dominate climate transition modelling may be inadequate at forecasting non-linear growth and they are certainly not well suited to incorporating increasingly complex geopolitical dynamics. China's drive to lead the global clean technology economy may be seen as a drive for economic diversification; a strengthened position in global trade and defence; and energy independence. The International Energy Agency's (IEA) annual outlooks for renewable energy installations have consistently fallen short of reality.[50] The agency's annual outlook on electric vehicles has also seen projections repeatedly revised upwards. From 2019 to 2024, for example, EV sales projections for 2030 almost doubled. While this year did not see further upward revisions due to a rollback of support in the U.S., the market remains in its growth phase. Technological improvements, cost reductions and improved access to charging stations as more EVs come on the road are all likely to spur accelerated deployment.

Figure 6: IEA Projections for EV Deployment, 2019–2025, Millions of Vehicles



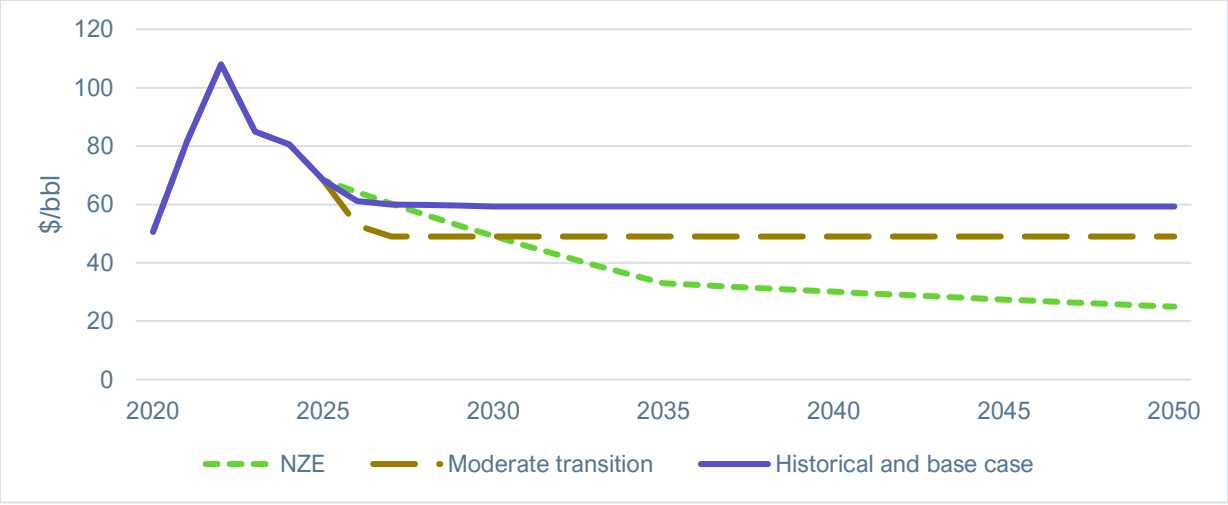
Source: IEA[51]

[50] Lopez G, Pourjamal Y and Breyer C. Paving the way towards a sustainable future or lagging behind? An ex-post analysis of the International Energy Agency's World Energy Outlook. Renewable and Sustainable Energy Reviews, Volume 212. 2025.
[51] International Energy Agency. Global EV Outlook 2025. 2025 (historic reports are available from the same link).

Despite the Trump administration's significant rollback in U.S. support, other large oil-consuming countries and regions still have strong incentives to accelerate the low-carbon transition. India, another coal-rich country that produces very limited amounts of oil and gas, has an incentive to scale up electrification as a means of reducing air pollution and limiting exposure to increasingly volatile and reordered fossil fuel value chains. The EU, structurally exposed to higher gas prices since the imposition of sanctions on Russia, also has a strong incentive to accelerate electrification. The EU and China, which together represent around 30% of global oil demand, appear to have found an alignment of interests in this area, although Chinese EV manufacturers increasingly seem to be outcompeting their European rivals. Taken together, the likely continued acceleration of decarbonization and electrification in the transport sectors (which represent the majority of global oil demand) means that there is a significant risk that long-term oil demand could be much lower than currently expected.

Lower-than-expected demand would also mean lower-than-expected prices and further negative effects on the value of Uganda's oil sector. We have assessed this climate transition risk in two global transition scenarios. The faster of the two scenarios represents a normative trajectory towards a world that reaches "net zero" greenhouse gas emissions by 2050 (the "NZE" case) and is based on the IEA's long-term price projections in that scenario, with prices falling to USD33 per barrel (in 2024 prices) by 2035 and to USD25 per barrel (in 2024 prices) by 2050. The higher probability scenario (the "moderate" transition case) has oil prices falling to USD55 per barrel in 2026, in line with the latest price outlook from the U.S. Energy Information Administration (U.S. EIA)[52] and then remaining at USD50 per barrel (in 2024 prices) thereafter. The moderate transition scenario is similar in average long-term price outlook to the "Moderate Transition" scenario used by the Natural Resource Governance Institute (NRGI) in their July 2025 report, *Strengthening Uganda's Management of Uncertain Oil Revenues,*[53] though with moderately higher prices through the mid-2030s and lower prices in the 2040s.

Figure 7: Oil Price Scenarios Used in This Analysis, Real 2024 USD Prices



Source: IEA, Market data, US EIA, Authors' analysis

[52] U.S. Energy Information Administration. Short-Term Energy Outlook. Accessed on 20 November 2025.
[53] Bagabo, P. and Scurfield, T. for Natural Resources Governance Initiative. Strengthening Uganda's Management of Uncertain Oil Revenues. 2025.

While the NZE scenario can be seen as a plausible but currently low probability downside case for Ugandan oil, it is the sort of case used by lenders to assess the robustness of lending decisions. However, given how long-run oil demand expectations have fallen consistently in recent years, it may be more prudent to assess future investments against the moderate transition case than the current base case.

3.3. Climate Transition Risk and Uganda's Oil Upstream Assets

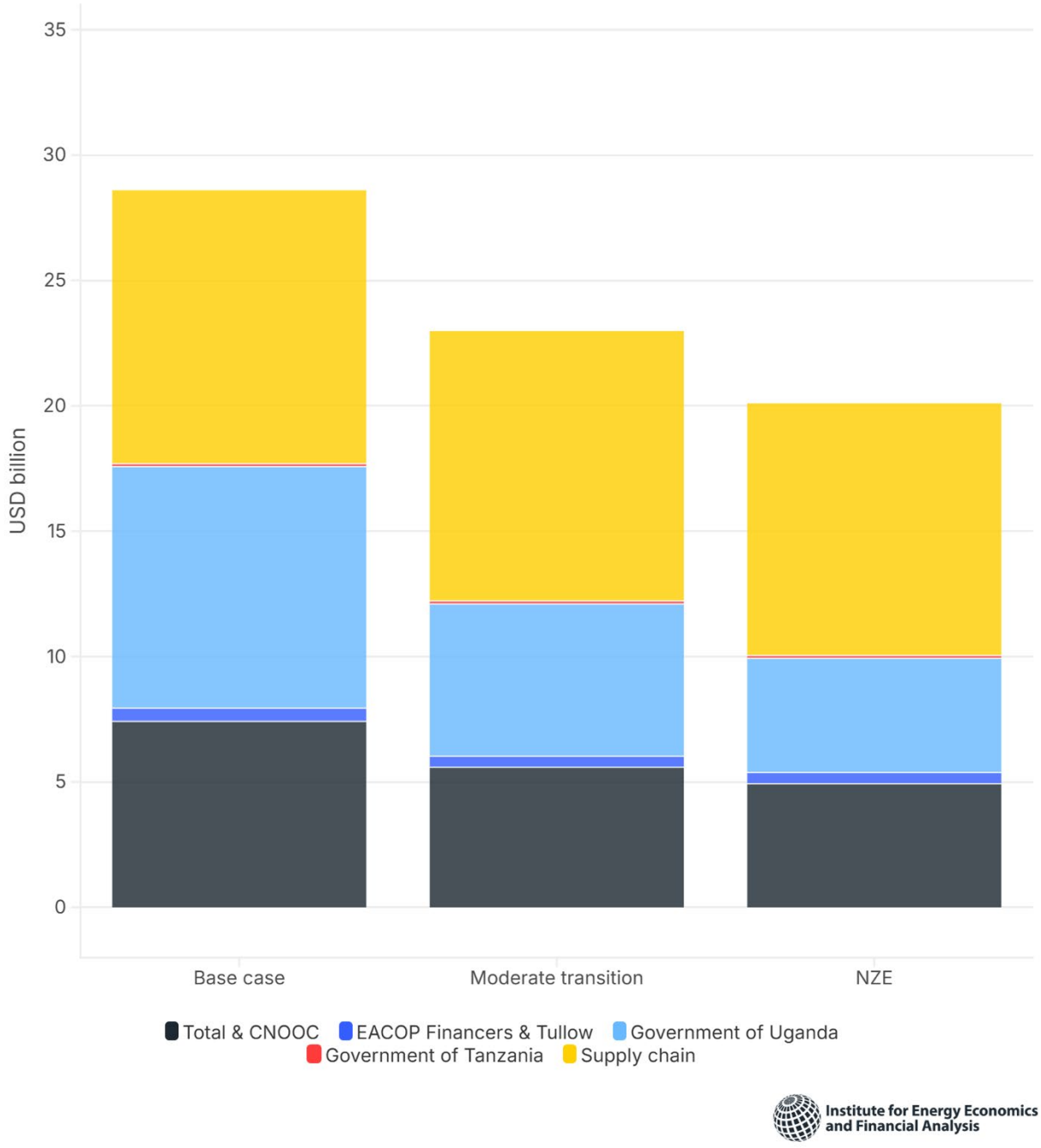
In our moderate transition scenario, the value of Uganda's oil at the point of production averages only USD34 per barrel (real 2024 prices), 21% lower than the base case of USD43.

Oil production becomes uncommercial three years earlier than in our base case, in 2051, with 4% fewer barrels produced over the life of the industry and the total value of Uganda's oil at the point of production falling by 24% to USD18 billion. The NZE scenario shows the industry closing 13 years earlier, in 2039, and producing 22% fewer barrels overall, with total value falling 36% compared to the base case.

An accelerated transition would mean significantly lower returns for investors. In the moderate transition scenario TotalEnergies and CNOOC only achieve IRRs of 7% and 9%, respectively, while this falls further to 5% and 8% in the NZE case. With the cost of capital for international oil companies likely to be around 8%, this means that an accelerated transition brings a risk that the project will be value destructive for shareholders. Compared to the base case, TotalEnergies' and CNOOC's share in the developments would be worth around 25% less in the moderate transition case and 34% in the NZE case.

The protection that cost recovery provisions offer to investors means that Uganda faces the largest burden of transition risk. With investors able to take a greater share of oil until they have recovered their initial investment, lower prices in an accelerated transition mean it takes longer until Uganda's share of revenues increases, and Uganda is more exposed to the increasing risks that a transition poses to longer-term oil prices. In our global transition scenarios, the value of Uganda's future revenues from the sector falls by 37% in the moderate transition case and 53% in the NZE case. Annual government revenues peak at only USD1.1 billion in the moderate transition case and USD1 billion in the NZE case, compared with USD2.1 billion in the base case (all in real 2024 prices).

Figure 8: Distribution of Value From Lake Albert Developments and EACOP by Scenario



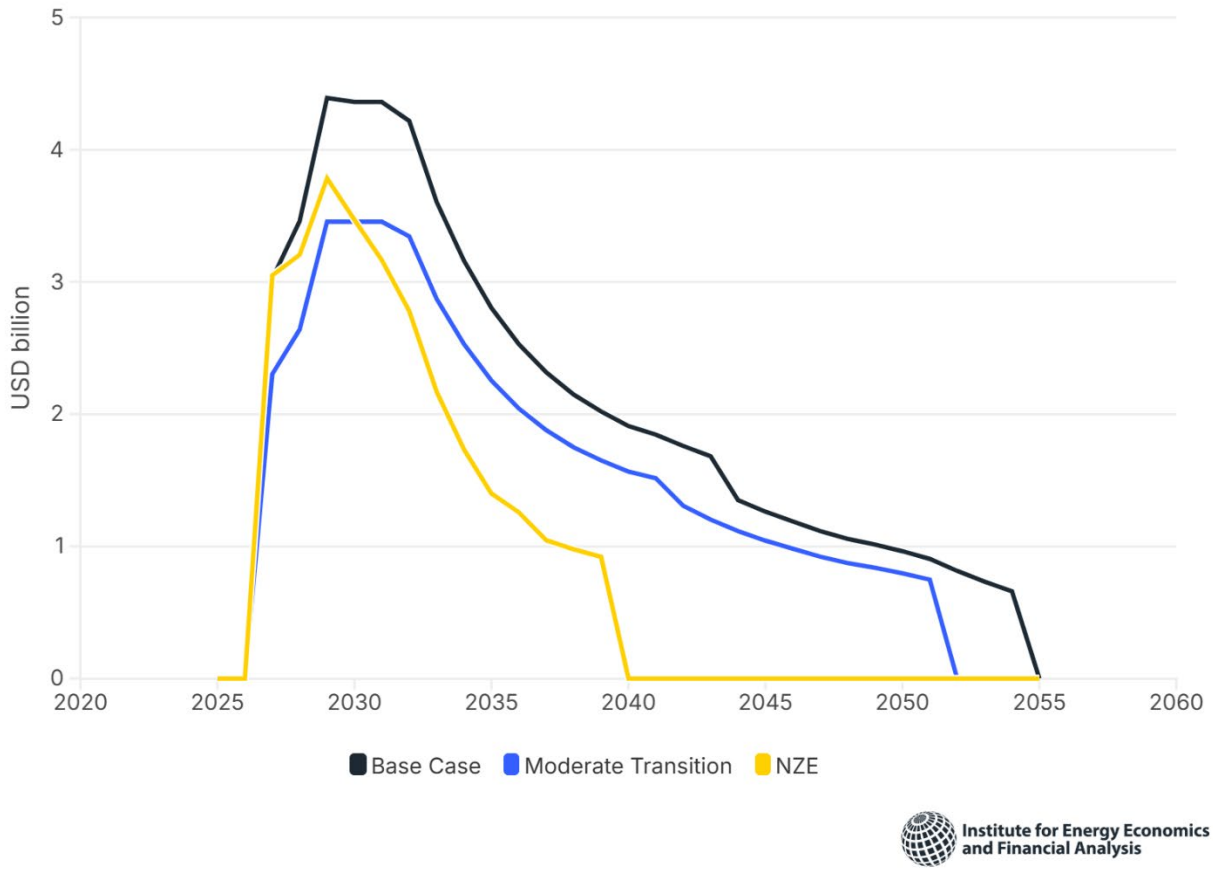
Source: Authors' modelling

If the cost recovery limit has been increased as discussed in Section 2, this increases the risk that Uganda faces from an accelerated transition compared with the above figures, with government value from the oil sector 38% lower in a moderate transition scenario and 54% in the NZE case.

The global transition cases would also have downside impacts for Uganda in relation to other expected economic benefits, such as the trade balance and the economic viability of the refinery. In the base case, Uganda's oil exports boost its trade balance significantly over the coming decades.

The annual value of oil exports at peak is around USD3.6 billion (real 2024 prices), and the proposed refinery is estimated to add almost USD800 million to this (real 2024 prices), largely by reducing import spending. This contribution would come close to eliminating the country's current trade deficit and potentially strengthening the value of the Ugandan shilling. However, this impact would be significantly less in an accelerated transition. Our global transition scenarios see the trade balance impact peaking at less than USD4 billion (real 2024 prices) in both moderate transition and NZE. Benefits to Uganda accrue over a much shorter timeframe in the NZE scenario.

Figure 9: Contribution of Oil Industry (Including Refinery) to Uganda's Goods Trade Balance, Real 2024 Prices



Source: Authors' modelling

3.4. Managing Climate Transition Risk in Ugandan Oil

The issues set out in this sub-section highlight the challenges that the foreign investors and Uganda are likely to face as they seek to understand how global transition dynamics may affect their returns. The scenario analysis explained in the CPI EF 2020 report[54] and conducted by the authors in 2025 is not designed to provide a right or wrong answer about the future trajectory of oil markets, but it can provide a range of plausible scenarios that are useful for risk management and investor communications. Many would doubt the probability of an NZE-type scenario given political challenges around achieving the goals of the Paris Agreement. The industry faces less severe, but still significant downside risk in a moderate transition scenario, which most would argue has a far higher probability than the NZE.

For foreign investors, some might question whether it is worth continuing with construction if the financial returns in our base case are so much lower than expected and if the project across its lifecycle could be value destructive in an accelerated climate transition. However, with most of the investment already committed and spent, all parties stand to earn positive financial returns from reaching first oil, even if an NZE scenario materializes. Furthermore, the biggest remaining opportunities for foreign investors to increase their returns—through financial engineering or divestments—are mostly contingent on oil starting to flow.

However, investors in TotalEnergies may reasonably question the thoroughness of the company's disclosed stress testing around climate risk, given that their impairment testing scenario only converges with the IEA's NZE price in 2050, with much higher prices used in earlier years.[55] The application of higher prices in the next decade means that returns under this scenario appear very similar to those in a base case with current market expectations. TotalEnergies has also disclosed that it uses a USD50 per barrel real terms scenario for Brent prices in the sensitivity analysis used to assess the robustness of new investments to risk.[56] For investors seeking to understand the group's exposure to climate, the USD50 scenario, which mirrors this report's moderate transition, seems more likely to be one aligned with TotalEnergies' internal decision-making than the scenario disclosed in relation to climate risk.

This report's NZE scenario may seem less directly relevant for investors in the equity of companies like TotalEnergies. However, in practice, the scenario may be exactly the type of plausible downside used by current and potential project finance lenders to the EACOP project to assess debt capacity. This means that the scenario is indirectly relevant for equity investors, since the availability of project finance debt (whether during the remainder of the construction period or even when the project is in operation) is likely to remain a key driver of equity returns, as illustrated in Section 2 of this report.

For Uganda, whose increasingly strained financial position has further increased the importance of short-term oil revenues to balance the budget or reduce debt, the consequences of further delays or severe shortfalls vs. expectations could be much more severe, as explored in the next section. Planning the spending of oil revenues against a scenario like the moderate transition set out in this paper may be a more realistic and prudent approach than sticking with base case projections. Doing this would help

[54] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.
[55] The price scenario in TotalEnergies' latest published impairment testing scenario is flat at USD70 per barrel in real terms through 2030, making it higher than current oil prices and market expectations. The source for the company's scenario is TotalEnergies. Sustainability & Climate 2025 Progress Report. 2025.
[56] TotalEnergies. Form 20-F 2024. 2025.

manage the climate transition risk impact to the public finances, but it would also raise questions about the continued wisdom of reliance on oil as a major expected driver of economic transformation.

4. Fiscal Risks From Uganda's Oil Industry

- Uganda's sovereign credit rating has been downgraded one notch since the FID and two notches since the comparative analysis in 2020. Weaker public finances mean less ability to bear future economic risks, including those relating to the oil industry.
- There is relative clarity on the amount invested in Uganda during the oil industry's construction phase and the revenues the country stands to earn in the next five to 10 years, but very little transparency about any expected economic multiplier effect.
- Lower-than-expected revenues over the longer term mean that oil is unlikely to be transformational for the economy or public finances. In an accelerated transition, amounts put aside in a fund to benefit future generations could be up to 70% lower than currently expected.

4.1. Introduction

Like many African countries, Uganda has faced strong economic headwinds in the last five years. During the COVID-19 pandemic, the country's economy slowed sharply, with real GDP growth falling from 6.8% in 2018/-19 to 3% in 2019/-20.[57] Russia's invasion of Ukraine in early 2022 then supercharged the post-COVID rebound in commodity prices. In 2022, Brent crude oil peaked at USD128 a barrel, almost twice the level at the end of 2019. The prices of thermal coal and natural gas, major energy commodities (but not so relevant for Uganda) experienced even higher price increases.[58]

As with all net importers of energy commodities, Uganda suffered from a series of escalating global crises over which it had no control. Imports rose from USD5.8 billion in 2021/-22 to USD7.1 billion in 2022/-23.[59] As the U.S. Federal Reserve began tightening monetary policy to curb domestic inflation, the dollar strengthened against the currencies of most non-producers. Uganda's currency (the Ugandan shilling or UGX) depreciated against the U.S. dollar by 4.9% in 2022, compounding the impact of higher USD-denominated energy prices. The Bank of Uganda raised interest rates to curb inflation, with the policy rate rising from 7% at the end of 2020 to 10% at the end of 2022. However, depreciation of the shilling also increased the value of Uganda's hard currency-denominated liabilities and the share of government revenues allocated to debt service payments rose sharply from 18% in 2020 to 32% in 2024.[60] Uganda entered an arrangement with the IMF (an Extended Credit Facility or ECF) to help manage the accumulated effects of this turbulent period.[61] Unlike Zambia and Ghana, Uganda avoided a sovereign

[57] World Bank Group. Uganda Economic Update 16th Edition: Investing in Uganda's Youth. 2020.
[58] Huxham, M. and Anwar, M. Understanding the impact of a low carbon transition on Colombia. 2023.
[59] Figures quoted in Ministry of Finance, Planning and Economic Development. Budget Speech Financial Year 2023/24. 2023.
[60] Ministry of Finance, Planning and Economic Development. The Budget Speech Financial Year 2024/25. 2024.
[61] International Monetary Fund. IMF Executive Board Approves $1 billion ECF Arrangement for Uganda. 2025.

debt default during this period, although its sovereign credit rating had been downgraded one notch by all three principal international rating agencies (to B3 with Moody's, B with Fitch and B- with S&P), by the end of 2024.

Uganda will also likely continue to be affected by declining availability of concessional lending, increasing the overall cost of public borrowing. The share of public debt offered at concessional rates has been declining gradually over the last decade, driven by Uganda's growing GDP and consequent ineligibility for some concessional funds. The government's decision to implement some of the world's strictest anti-LGBTQ laws in 2023 also apparently contributed to an acceleration of the trend, with the World Bank and certain bilateral donors either suspending or redirecting funds for a period.[62] Uganda's structural exposure to global financial market conditions is only likely to increase over time, increasing the materiality of changes in credit rating agency assessments of the country. Changes in its rating could affect not only the cost of new debt, but the reliability of access to new debt on reasonable terms to refinance upcoming maturities. The fact that a new IMF program is being negotiated (apparently targeted for implementation after the Ugandan election early in 2026) is evidence of the strain on country's public finances are bearing.[63]

Uganda's weakened public finances (and especially the growing share of the budget allocated to debt service) may not diminish the country's long-run economic potential but they do constrain the country's short-term fiscal flexibility, and certainly, the ability to absorb new or emergent economic shocks. The constrained situation increases the stakes for Uganda when it comes to forecasting major items of public expenditure and revenue such as those related to the oil sector. The factors set out in Section 2 (delay, cost inflation, unavailability of project finance debt) have already contributed to the weakening of Uganda's public finances, while the factors outlined in Section 3 (climate transition risk) will make even a lower-than-expected quantum of economic benefits from oil harder to forecast. The accelerating physical consequences of climate change will—unless a change in climate resilience investment is achieved—further erode that fiscal flexibility.

The rest of this section explores these challenges more and arrives at the conclusion that oil is unlikely to be transformational for the economy or public finances.

4.2. Ugandan Returns From Oil Are Likely To Be Concentrated in the Next Decade

Uganda is set to receive a wide potential variety of economic benefits from its oil industry. These range from specific shares of revenue earned from the sale of Ugandan oil codified in national law and contractual agreements to broad-based benefits relating to jobs and the economic multiplier effects from initial (foreign direct) fixed capital investment.

Table 2 below shows the different potential types of benefit and the factors that could influence the quantum and timing of each one. The table shows 72% of Uganda's value coming from before-tax items (royalties and profit oil) and 78% of the total being earned in the next ten years.

[62] World Bank Group. World Bank Group Statement on Uganda. 2023.
[63] Aloo, H. for The Africa Report. Uganda pushes for wider deficit in $675m IMF talks. 2025.

Table 2: Base Case Oil Revenues to Uganda by Revenue Type, Net Present Value in USD Millions

Base case	2025 to 2035	After 2035	Total
Royalties	1,777	448	2,226
Profit oil	3,167	1,076	4,693
Taxes	1,181	520	1,701
UNOC free cash flow	897	111	1,008
Total	**7,473**	**2,155**	**9,629**

Source: Authors' analysis

Table 3 shows how the principal sources of value would change in the global transition scenarios. This shows that there is more downside risk in relation to later revenues, as the transition impact relative to the base case on oil market expectations is expected to compound over time

Table 3: Climate Transition Risk to Ugandan Revenue Type, by Global Transition Scenario

	2025-2035		After 2035	
% differences	Moderate	NZE	Moderate	NZE
Royalties	-23	-24	-26	-81
Profit oil	-40	-47	-37	-90
Taxes	-47	-57	-60	-99
UNOC free cash flow	-30	-34	-28	-100
Total	**-36**	**-42**	**-40**	**-91**

Source: Authors' analysis

Advocates of Uganda's oil industry tend to point not only to Uganda's potential share of revenues from oil production, but also to the more indirect additional economic benefits that the country has earned or is destined to earn during the construction phase. It has been claimed that as many as 15,000 direct construction and operation jobs will be created, as well as additional indirect jobs and associated economic activity.[64] However, there is little transparency about the types of jobs created during the construction phase, the companies involved, or the extent of any processes (such as training, technology transfer etc.) undertaken to try to ensure that the investment boom is genuinely catalytic beyond the construction phase. There have also been many reports about challenges associated with the oil industry

[64] Uganda National Oil Company. Balancing Progress and Preservation: Uganda's Oil Journey and the Delicate Balance of Development. 2025.

investment phase, including allegations in relation to the timing and quantum of compensation for displaced people and other human rights abuses.[65] An assessment of these claims is not within the scope of the report, but, if true, these issues would erode the potential economic value of the current investment boom.

To receive these potential benefits, Uganda has had to make a range of financial investments that may amount to over USD2 billion by the time oil production starts. In addition to UNOC's investment in EACOP, reviewed in Sections 2 and 3, which is expected to represent a USD675 million equity contribution, Uganda has also invested in ancillary infrastructure. This includes USD900 million in "oil roads" and USD500 million in the Kabalega Airport in the Hoima region,[66] both of which the government has financed at least partially through debt, including a EUR270 million loan from U.K. Export Finance for Hoima Airport.[67, 68]

If Uganda has reaped significant net benefits from the construction phase, these are hard to distinguish in the country's economic statistics, as reviewed in Section 4.1. This could either mean that the benefits have been much lower than publicly stated, or that they have not been large enough to offset the negative impact of other trends that have materialized over the same period. Either way, this suggests that making the country's oil industry genuinely transformative (i.e. making economic benefits into something that improves the lives of many Ugandans) will not be a simple task.

The Ugandan government appears to have been proactive in working with development partners to create mechanisms to manage the risk around oil price volatility. However, oil-related fiscal rules that aim to smooth the contribution of oil revenues to budgetary spending and to invest a share of the revenues for future generations seem better suited to dealing with cyclical risks than structural change.

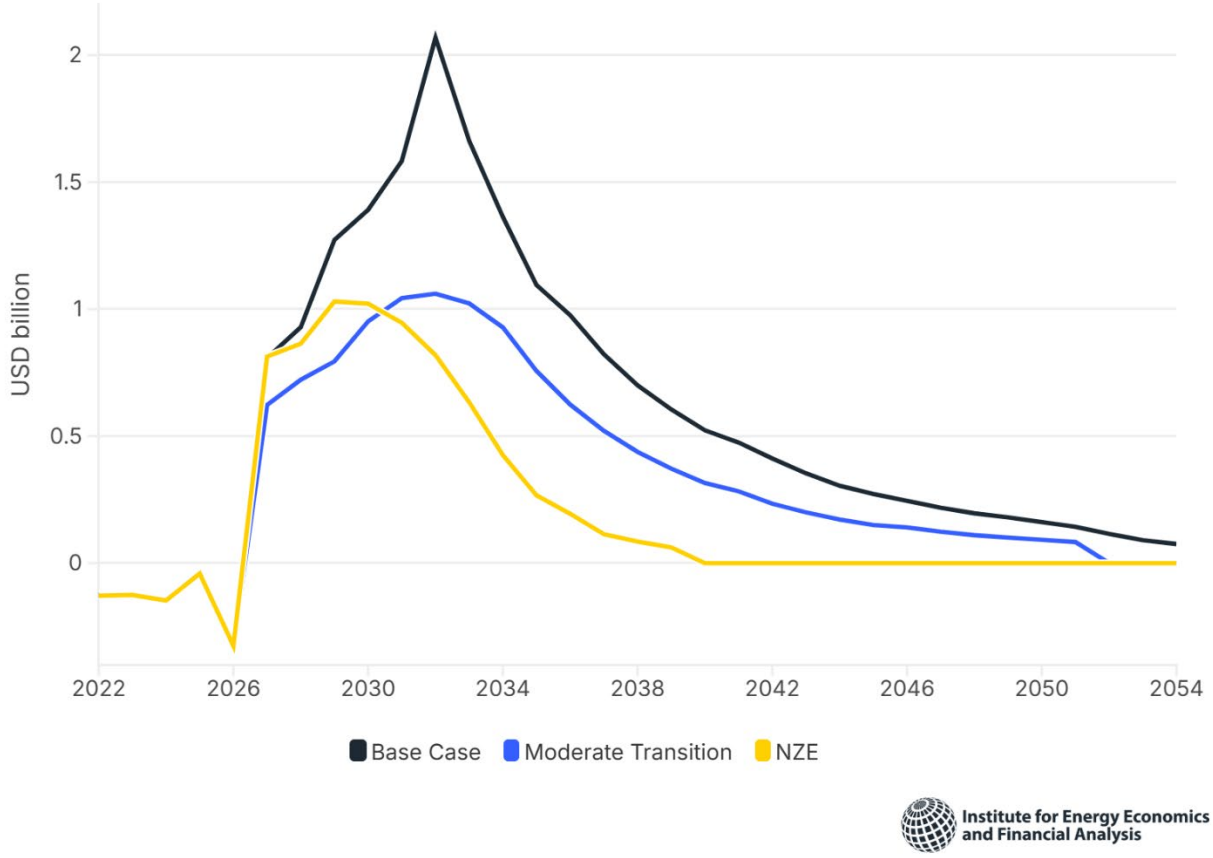
Even with the relatively certain level of revenues the country might stand to earn in the early years of production, Ugandan officials have important decisions to make about how and when to distribute the expected benefits. The Petroleum Fund, established in 2015 and into which oil revenues are deposited before distribution, gives the national government control over the distribution of almost all spending.[69] The biggest uncertainty remains around the extent to which oil revenues will be spent on debt reduction or on infrastructure projects, particularly the oil refinery. Both options could magnify long-term returns for Ugandans, compared with use of the revenues to prop up the current budget, but large new investments could result in the country taking on more risk (including climate transition risk) and defer the time when most citizens could start to benefit.

[65] FIDH International Federation for Human Rights. Oil in Uganda: Serious human rights abuses and escalating threats as project development enters new phase. 2024.
[66] Petroleum Authority of Uganda. Opportunities Generated by FID in the Oil and Gas Subsector. 2022.
[67] New Vision. Uganda's Parliament approves sh467b loan for 'oil roads'. 2025.
[68] UK Export Finance. Colas UK to help build Ugandan airport with UKEF support. 2017.
[69] Bagabo, P. and Scurfield, T. for Natural Resources Governance Initiative. Strengthening Uganda's Management of Uncertain Oil Revenues. 2025.

4.3. Long-Run Transformational Impact Appears Increasingly Unlikely

After the initial ramp-up to peak production and a short plateau, production from Uganda's oil industry is expected to enter gradual decline, unless further oil fields in the country are developed. Total revenues from the industry would decline, but under the terms of production sharing agreements, an increasingly high share of revenues would accrue to Uganda, especially after foreign investors have recovered their investments through cost oil. In our global transition scenarios, not only would less revenue be earned from the industry in total, but it would take longer for the foreign investors to recover their investments and, therefore, for Uganda's share of a lower pot of revenues to rise.

Figure 10: Ugandan Government Cash Flows From Lake Albert Developments and EACOP by Scenario, Real 2024 USD

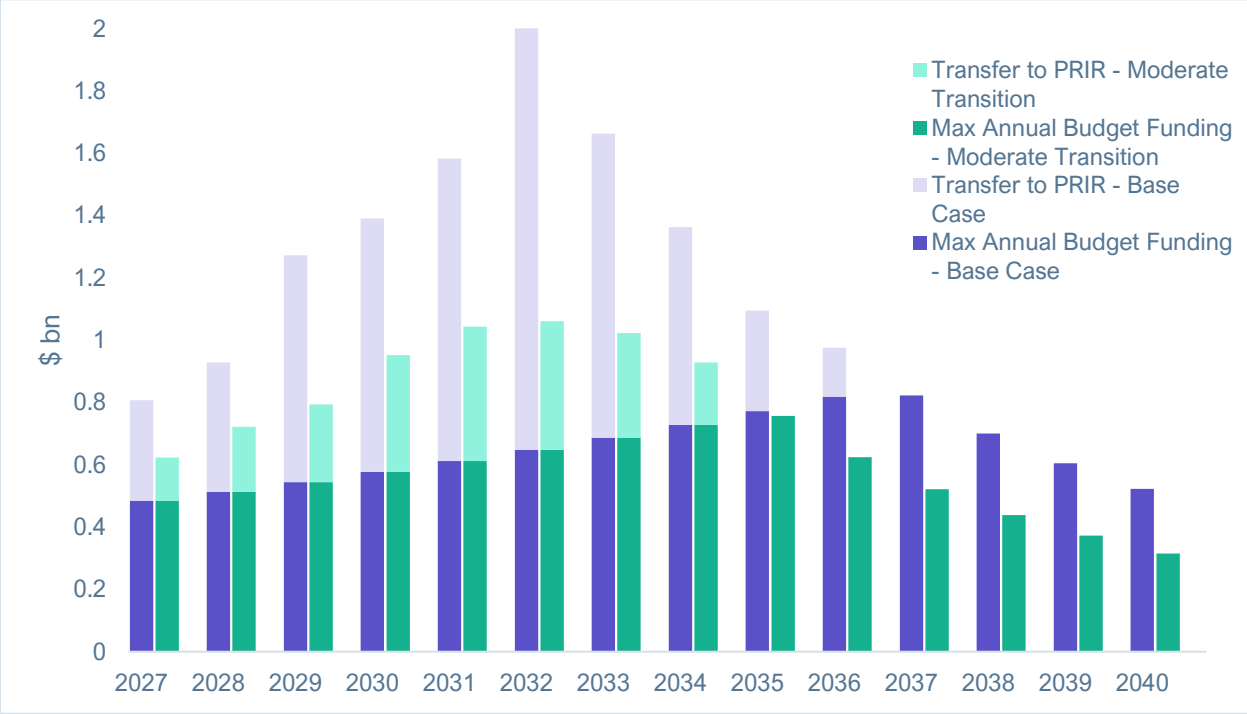


Source: Authors' modelling

The government has created rules aimed at ensuring that the oil sector brings benefits across generations. The amount transferred from the annual petroleum fund to the annual government budget is limited to 0.8% of the previous year's non-oil GDP, with the remainder transferred into a long-term

investment fund, the PRIR.[70] However, lower-than-expected revenues would significantly limit the long-term transformational impact of the industry for the Ugandan economy and people. While in our base case at least USD6.7 billion (in 2024 prices) would be invested in the PRIR, this amount falls by around 65-70% in our accelerated transition scenarios. A less-well capitalized PRIR makes productive spending of oil revenues in the coming years even more crucial if the sector is to be a major driver of development gains.

Figure 11: Potential Spending of Uganda Oil Revenues to 2040 by Scenario, Real 2024 USD



Source: Authors' modelling

The commercial and financing arrangements that Uganda is discussing around the planned oil refinery could also negatively impact the capitalization of the PRIR. As discussed in our parallel paper *Climate-resilient development in Uganda*, the USD2 billion loan reportedly offered by commodity trader Vitol to fund part of Uganda's stake in the oil refinery would grant the lender priority access to oil revenues as a source of repayment.[71]

Beyond this, Uganda is likely to face economic exposure to the potential reactions of TotalEnergies and CNOOC as they increasingly seek to manage climate transition risk. It would be unwise for Uganda to assume that these investors and their lenders will seek to retain their current ownership stakes through the life of the fields. Relying on continued investment in exploration and the development of additional fields would be even riskier since future potential investment decisions will likely face the reality of further acceleration of the global transition. There are a range of plausible strategies that those parties could employ to try to improve their own financial returns, as set out in Table 4 below. These could create

[70] S&P Global. Uganda Outlook Revised to Positive On Resilient Growth; 'B-/B' Ratings Affirmed. 2025.
[71] Ecofin Agency. Uganda Seeks $2 Billion Loan From Oil Trader Vitol for Infrastructure Projects. 2025.

contingent liabilities for Uganda that are more difficult to plan for but that could result in a material unbudgeted increase in public debt.

Table 4: Potential Contingent Liabilities to Uganda From the Strategic Behavior of Foreign Investors

Potential investor action	Rationale for action	Potential contingent liability to Uganda
1. Leveraging up the EACOP company	Increasing the level of borrowing at the EACOP project company - most likely after construction is completed - would return capital to shareholders earlier than if they would otherwise have to wait to earn a share of potentially limited after-tax profits over the life of the asset. This would increase financial returns.	Leveraging up the pipeline has the potential to be a net benefit, as UNOC could see early repayment of some of its capital investment. However, a genuinely non-recourse project finance structure may require Uganda to make further commitments (for example, around tax rates, decommissioning costs) or to offer certain guarantees / credit support. Uganda might consider this if it secures the continued participation of foreign investors, but it would come at a cost.
2. Selling down stakes in EACOP	Similar rationale to increasing borrowing at the EACOP project company and would be more feasible if the borrowing had happened first.	If the sale were to an investor with lower creditworthiness than the current shareholders, this could implicitly place risk on Uganda to provide support in the event of credit distress
3. Selling stakes in the upstream oil resources	This option might be feasible once oil production starts. Shareholders may consider this if they believe they can sell to a buyer with a more bullish view on long-term oil demand	As with the previous scenario, the entry of new shareholders would bring with it additional uncertainty and could result in additional risk and cost. In other jurisdictions, oil major stakes have been acquired variously by financial firms and local investors with more limited operating experience. Where debt financing is used to support

		acquisitions, it can also limit the capacity to bear downside risk.

Whether Uganda faces challenges from the changing position of their international partners will depend on the identity of any new investors. The future entry of new investors raises the risk that Uganda could be forced to pick up the bill for significant future costs (such as those relating to decommissioning), especially if new investors have weaker balance sheets or make highly leveraged investments. This dynamic (especially around the "farm-down" of interests in operating oil and infrastructure assets) has been common practice in the industry for decades and has become particularly prevalent in the last decade as international companies have sought to optimize their position for climate-related financial risks and other reputational considerations by divesting from emissions-intensive firms and industries.

By contrast, the potential for exploiting further oil reserves in the region (with both Uganda and the neighboring Democratic Republic of Congo[72] seeking new exploration investment) may encourage the continued participation of today's investors (especially in EACOP). The exploration, however, could increase security-related risks given the recent history of armed conflict in the region. Further development of oil reserves also would increase the risk posed to the region's complex ecosystems and threaten the related tourist industry,[73] one of Uganda's largest employers and a central plank of the country's development plan.

5. Conclusion

- Uganda has a very limited historical responsibility for climate change and, a decade ago, its bet on oil revenues as a major driver of development might have paid off. However, the world is changing fast. The country's investments in the oil industry are increasingly likely to bring lower, less transformative benefits and come with higher, less predictable costs.
- Uganda has an increasingly narrow margin for error when it comes to the use of public resources, given its weak sovereign rating and the accelerating physical consequences of climate change. This dynamic magnifies the potential consequences of major project risks explored in this paper—delay, cost overruns and uncertain access to finance.
- Doubling down on oil through the refinery investment could undermine debt sustainability and hamper long-run development. A more diversified strategy could be key to building a more resilient and prosperous Uganda in a decarbonizing world.

As a country with very limited historic greenhouse gas emissions, Uganda has a very limited responsibility for climate change. According to the World Bank's Country Climate and Development Report (CCDR),[74]

[72] Earth Insight. DRC's Expanded Oil Plans Endanger Ecosystems and Communities. 2025.
[73] Daily Southern & East African. Oil threat at key Ugandan national park. 2025.
[74] World Bank Group. Country Climate and Development Report: Uganda. 2025.

Uganda is the 14th-most vulnerable country to climate change and the 163rd in terms of readiness to cope with its impacts. This means that Uganda requires a significant increase in investment to make its economy resilient to climate change, in addition to the investments required to meet broader development goals. With a declining sovereign credit rating and rising global interest rates, a decision to develop an industry around a natural resource like oil might be seen as a pragmatic and even a just strategy to grow fiscal revenues, trade and access to dollars.

However, this report has shown that the economic impact of Uganda's oil industry may be much smaller than previously envisioned. Oil development in Uganda is not happening in a vacuum, but in the context of a world undergoing an accelerated spurt of technological change and geopolitical volatility.

The factors that have contributed so far to the delayed development timeline, cost inflation and changing availability of debt finance for Uganda's oil industry may partly be driven by concern around climate change. But Uganda, as with many other developing countries, is also bearing the brunt of global trends that have little regard for justice or fairness. The fact that the global transition is playing out in an unjust way is no reason to pretend that it is not happening. Indeed, the growing body of data and analysis on global transition dynamics and their potential economic impacts (of which this report is one small contribution), has the potential to inform more robust and resilient planning and investment processes, if governments are not to be constantly put at a disadvantage vs. foreign investors by asymmetric access to that data and analysis.

Uganda has recently taken a prominent role in international co-ordination around climate resilience, as co-chair of the Coalition of Finance Ministers for Climate Action.[75] This means it should be particularly well placed not only to integrate transition-related analysis into its economic planning, but also to provide support for other countries facing similar issues.

A comprehensive integration of climate- and transition-related considerations into planning processes has been made more urgent by the strained fiscal capacity of many government balance sheets. However, the successful pursuit of climate prosperity (to borrow a term from the Climate Vulnerable Forum of which Uganda is a member) may require policymakers to challenge long-held assumptions and shibboleths about which approaches are likely to create sustainable improvements in development outcomes.[76] The economic viability of oil-based development in Uganda or anywhere in the world is now much less certain than it was when exploration for oil in Uganda had begun.

The almost 20% decline in the value of Uganda's oil industry since the CPI EF 2020 report[77] shows that these risks are not purely theoretical. The analysis in Section 3 of this report demonstrates that further risks to the value of the industry are weighted to the downside, with the returns of foreign investors TotalEnergies and CNOOC relatively well-protected compared to those of Uganda, which could stand to lose almost 40% of expected value in a moderate transition and 53% in an NZE scenario in line with the goals of the Paris Agreement.

[75] Ministry of Finance, Planning and Economic Development. Uganda Assumes Role of Co-Chair of the Coalition of Finance Ministers for Climate Action. 2025.
[76] Climate Vulnerable Forum / Vulnerable Twenty Group. Climate Prosperity Plans. Accessed on 20 November 2025.
[77] Huxham, M., Anwar, M., Strutt E. and Nelson, D. Understanding the impact of a low carbon transition on Uganda's planned oil industry. 2020.

However, with limited alternative options to support the public finances, it was never likely that Uganda would give up on the principal oil projects examined in this report, even if that meant renegotiating terms with foreign investors and taking on most of the climate transition risk exposure. Previous analyses of Ugandan public debt sustainability published by its government and the IMF have highlighted the critical importance of future oil revenues to Ugandan economic stability. The delayed development timeline and cost inflation (which has tripled the amount of investment needed from Uganda to get to first oil) may have contributed to the recent further erosion of Ugandan fiscal capacity but they also raise questions about the potential productivity of further investments in the sector.

In global transition scenarios where the oil industry produces lower revenues, Uganda's benefits from development of its oil resources are significantly less than expected and over a shorter period. Increasing uncertainty about the quantum and timing of oil revenues, coupled with Uganda's weaker public finances, could make it increasingly challenging for Uganda's oil industry to act as a transformative engine of development. Uganda's heightened vulnerability to external economic shocks and the accelerating physical consequences of climate change will, in turn, make it harder for Uganda to make large investments of any sort if they have long payback periods. In this context, the proposed USD1.8 billion investment in the oil refinery looks like an increasingly risky bet, despite significant ostensible benefits in terms of the trade balance.[78]

In our second paper, *Climate-resilient development in Uganda: How a global transition and fiscal constraints could influence Uganda's development choices,* we set out a potential framework that Uganda and other key stakeholders can use to consider the range of economic and other development benefits that major investments could be expected to bring, given the global transition dynamics explored in that paper and the accelerating physical consequences of climate change. A comprehensive incorporation of climate transition and physical risks into future public investment decision-making would follow the public recommendations of many of Uganda's development partners and could help the country find a range of alternative, more diversified strategies with less risk than those associated with the remaining planned oil industry investments.

Transitioning to alternative economic strategies will need the active support of Uganda's donors and concessional lenders but even a lower-than-expected quantum of oil revenues could help provide a foundation for a more diversified and resilient growth strategy. Investments in areas such as electrification to improve energy access and increase the use of clean cooking could offer larger multiplier effects if they result in lower costs for those Ugandans who currently have reliable access to energy (especially when compared with the refinery that we believe will not offer direct savings to liquid fuel users). Leveraging the public balance sheet through blended finance or similar structures to secure scaled-up funding for climate adaptation activities would also have predictable long-term benefits, provided financing challenges can be overcome.

[78] BNE IntelliNews. Uganda signs $4 billion oil refinery deal with UAE's Alpha MBM Investments. 2025.

Appendix: Economic Modelling Methodology and Assumptions

The economic analysis of Uganda's oil industry described in this report was carried out using a set of financial models developed by the authors based on corporate and government disclosures, other publicly available sources and industry standard assumptions.

Upstream Economic Models

The Ugandan upstream sector was modelled using three individual cash flow models, one for each PSA contract area. The key assumptions used to calculate annual revenues and costs are detailed below:

Oil production profiles	**Production beginning early 2027, ramping up to reach 230 thousand barrels per day plateau (139 thousand barrels per day from EA-1, 51 thousand barrels per day from EA-2 and 40 thousand barrels per day from EA-3) mid-2028 and decline commencing 2032. Profiles based on technical analysis disclosed by Tullow Oil at sale of interests,[79] operator statements, adjusted based on reserves reported by PAU, and IMF reports**
Oil export price at Tanga	5.3% discount to Brent crude assumed based on reported export prices for Dar Blend from Sudan[80]
Pipeline Tariff	USD12.77 per barrel (base year 2021), inflated annually based on lower of US CPI inflation rate and 2%, as specified in EACOP (Special Provisions) Act, 2021[81]
Capital expenditure	Pre-2020 costs: Based on Tullow disclosure 2020-24 costs: Annual investments totaling USD3,995 sourced from Ugandan government reports[82] and TotalEnergies EP Uganda[83]

[79] Tullow Oil plc. Proposed sale of Tullow's entire stake in the Lake Albert Development Project in Uganda: Circular to Shareholders and Notice of General Meeting. 2020.
[80] Ministry of Petroleum, South Sudan. Dar & Nile Blend 2023. 2023.
[81] The Republic of Uganda. The East African Crude Oil Pipeline (EACOP) (Special Provisions) Act, 2021. 2021.
[82] Uganda Bureau of Statistics. Oil and Gas Investment Statistics Report 2023. 2024.
[83] TotalEnergies EP Uganda. Auditor's Report on the Annual Financial Statements. Financial Year Ended 31 December 2024. 2025.

	2025 onwards: Remaining cost based on total budgets of USD4.3 bn for Tilenga and USD1.5 bn (in 2019 USD) for Kingfisher, adjusted for inflation, minus costs already incurred since 2022
Operating expenditure	5% of development capex annually, based on operator estimates disclosed by Tullow Oil at sale of interests[84]
Decommissioning Cost	Based on operator estimates disclosed by Tullow Oil at sale of interests,[85] adjusted for inflation. Payments into decommissioning fund commence when half of reserves produced, with payments based on share of remaining reserves produced annually (as per typical industry practice for decommissioning funds)

Revenues from each contract area are split between investors and the government according to the terms of each PSA. While as discussed in Section 2, any recent revisions to the PSAs have not been publicly disclosed, the original contract terms are public and we apply these for our base case analysis.[86] Royalties are payable as a percentage of gross oil revenues, with rates increasing incrementally based on production. A share of production, up to the cost recovery limit, is then allocated to investors to recover their costs, and the remaining production (profit oil) is split between investors and the government, with rates again increasing incrementally based on production. Companies' cash flows from the PSAs are then taxed according to specific provisions in Ugandan tax law. The key PSA and tax terms are shown in Table 5.

Table 5: Key Modelling Assumptions for Ugandan Upstream Assets

	Production tranche (barrels per day)	EA-1	EA-2	EA-3A
Royalty	0-2,500	5.0%	5.0%	5.0%
	2,500-5,000	7.5%	7.5%	7.5%
	5,000-7,000	10.0%	10.0%	10.0%

[84] Tullow Oil plc. Proposed sale of Tullow's entire stake in the Lake Albert Development Project in Uganda: Circular to Shareholders and Notice of General Meeting. 2020.
[85] Tullow Oil plc. Proposed sale of Tullow's entire stake in the Lake Albert Development Project in Uganda: Circular to Shareholders and Notice of General Meeting. 2020.
[86] Heritage Oil and Gas Limited. Draft Production Sharing Agreement for Petroleum Exploration, Development and Production in the Republic of Uganda. 2004.

	7,500 and over	12.5%	12.5%	12.5%
Cost recovery limit		60%	60%	60%
Government share of profit oil	0-5,000 5,000-10,000 10,000-20,000 20,000-30,000 30,000-40,000 40,000 and over	45.0% 47.5% 52.5% 57.5% 62.5% 67.5%	40.0% 45.0% 50.0% 55.0% 60.0% 65.0%	46.0% 48.5% 53.5% 58.5% 63.5% 68.5%
UNOC carried interest		15%	15%	15%
Corporate tax		30%, applied separately on profits from each PSA[87]		
Depreciation of capital assets		Straight-line over six years[88]		
Windfall tax		15% of after-tax profits if international oil price (the higher of either Brent crude or average of three international benchmarks similar to Lake Albert Crude) exceeds USD75 per barrel[89]		

[87] The Republic of Uganda. Income Tax Act. Accessed on 20 November 2025.
[88] The Republic of Uganda. Income Tax Act. Accessed on 20 November 2025.
[89] The Republic of Uganda. Income Tax Act. Accessed on 20 November 2025.

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EACOP

A separate cash flow model was built for EACOP, and the key assumptions are summarized in Table 6.

Table 6: Key Modelling Assumptions for EACOP

Pipeline Tariff	USD12.77 per barrel (base year 2021), inflated annually based on lower of US CPI inflation rate and 2%, as specified in EACOP (Special Provisions) Act, 2021[90]
Pipeline throughput	Total production from the upstream segment, after deduction of oil allocated to the refinery
Capital expenditure	USD5.6 billion total cost estimate, as reported in 2025 Annual investment from 2022-24 based on EACOP company accounts[91],[92],[93]
Operating expenditure	Based on USD90 million annual cost estimate given in 2019,[94] adjusted for inflation
Debt financing	USD755 million, repayable from December 2026 to September 2032,[95] with interest rates linked to SOFR rate (assumed 1% spread)
Decommissioning cost	Based on reference cost estimate of USD200,000/km for onshore pipelines in 2023,[96] adjusted for inflation. Payments into decommissioning fund commence 5 years after first oil,[97] with payments assumed to be spread evenly over remaining life
Corporate tax	Uganda: 30% with 10-year tax holiday from first oil Tanzania: 30% with similar 10-year tax holiday assumed to be applied Income allocated 40:60 between Uganda and Tanzania, respectively[98]
Depreciation of capital assets	Straight-line over 20 years

[90] The Republic of Uganda. The East African Crude Oil Pipeline (EACOP) (Special Provisions) Act, 2021. 2021.
[91] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2022. 2023.
[92] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2023. 2024.
[93] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2024. 2025.
[94] EACOP Project Tanzania ESIA. Cost Benefit Analysis. 2019.
[95] East Africa Crude Oil Pipeline (EACOP) Ltd. Annual Report and Financial Statements For The Year Ended 31 December 2024. 2025.
[96] Reuters. Canada regulator says most pipeline companies to face higher abandonment costs. 2023.
[97] The Republic of Uganda. The East African Crude Oil Pipeline (EACOP) (Special Provisions) Act, 2021. 2021.
[98] Ibid.

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