

Navigating Decisions

The risks to Mozambique
from liquified natural gas
export projects

IISD REPORT





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Navigating Decisions: The risks to Mozambique from liquefied natural gas export projects

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Executive Summary

This report explores the increased interest, partly driven by the European Union (EU), in liquefied natural gas (LNG) production and export in Mozambique. It examines whether LNG offers a reliable route to economic development or risks creating exposure to projects that will ultimately burden the Mozambican government. The EU and member states are involved as off-takers and supporting the development and operation of these LNG facilities. The findings of this report show a case that should justify a change of course for policy-makers in both Mozambique and the EU away from these LNG investments.

The climate science is clear that there should be no new natural gas project developments, including in Mozambique, if the world is to limit global warming to 1.5°C. Nevertheless, the argument presented here is based on the social and economic case rather than climate change imperatives.

Key Findings

Social and Environmental Impacts

LNG development has been marked by poorly managed community resettlement, increased social tensions, insufficient human rights due diligence, and links to the violent insurrection in the province of Cabo Delgado, where the LNG projects are located. Ecosystem damage decreases tourism.

Economic Concerns

The LNG projects have received disproportionate public finance support—60 times that of renewable energy. They have also increased national oil company debt and sovereign liability. The LNG deals are structured so that most of the revenue for Mozambique comes in the mid-2030s and 2040s and is subject to how the international LNG market develops, transferring risk to the state. The gas extraction consortiums also avoid paying withholding taxes on dividends or interest. Mozambique has very limited value chain participation, so while foreign companies make money at all the stages, Mozambique does not.

Risks to Future Financial Returns

These include reduced demand for LNG from Mozambique as the global transition away from fossil fuels ramps up and increased competition from alternative and cheaper gas suppliers. There is also the risk of lower revenues than projected by the government. The factors involved include volatile gas prices, downward price pressure from excess supply, and the security situation in Cabo Delgado, which is pushing up costs and threatening production.

Risks to Sovereignty

There are several of these—international investment law protects the LNG projects at Mozambique's expense; military and security services protect LNG infrastructure rather than people; and TotalEnergies has taken over some state functions.



Gas Has Not, and May Never, Contribute to Economic Development

In the 12 years since gas discoveries were made, economic development has not improved in Mozambique. In fact, in Cabo Delgado, it has gotten worse. The combined financial risks could result in stranded assets and convert government equity into a liability.

Recommendations

Mozambique should fully address the negative impacts already caused by LNG projects. Decisions around the future of the already operational Coral South field should be based on a comprehensive, independent reassessment. Instead of further LNG projects, Mozambique should prioritize less-risky development initiatives that provide greater benefit to the people, environment, and economy. EU member states should work with the Government of Mozambique to deliver sustainable economic and social development.



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1.0 Introduction

The European Union (EU) is interested and involved in liquefied natural gas (LNG) projects in Mozambique. The Mozambican government has promoted LNG export as a way to boost economic development, but there are significant risks to this promise. Successfully navigating this debate is central to economic and energy policy for Mozambique.

The EU has faced energy supply shortages since Russia's invasion of Ukraine in February 2022, which caused EU member countries to look for alternative supplies of natural gas¹ to circumvent the possible suspension of gas imports from Russia. This increased LNG demand and renewed interest in developing bilateral agreements between the EU and African countries, including Mozambique, Senegal, Nigeria, and Algeria. This situation seemingly creates new prospects in these countries to develop LNG for export purposes; however, this narrative overlooks the significant risks associated with such a move.

In Mozambique, the discovery of large offshore gas reserves, announced in 2010, has been promoted to significantly boost the country's GDP and save the struggling economy. The International Monetary Fund (IMF) estimated in 2016 that total revenues could reach USD 500 billion by 2045; however, as will be discussed, these estimates now appear detached from reality (IMF, 2016).

There is currently a global discussion about whether investments in new oil and gas projects can be justified in the context of climate change constraints. Studies indicate that to remain within a 1.5°C average global temperature increase, there can be no further development of new gas fields (Bois von Kursk et al., 2022). This includes LNG facilities that are planned or under construction (International Energy Agency [IEA], 2021).

However, for countries like Mozambique that have contributed so little of the greenhouse gas (GHG) emissions that drive climate change, there is the argument that they should be allowed to develop their gas resources, while the Global North countries (that have the largest historical GHG emissions) should make the necessary reductions in production to balance the sums.

If this suggestion is workable in terms of total net global emissions, then a necessary condition should be that the exploitation of such new gas resources must result in a significant positive net benefit to the host country's development across social, economic, and environmental metrics.

This report examines whether LNG exports from Mozambique will bring sufficient benefit to the country to justify further exploration of LNG projects. The research explores the following: (a) the negative aspects of existing LNG projects; (b) risks to future financial benefits; and (c) the implications and conclusions that can be drawn for Mozambique.

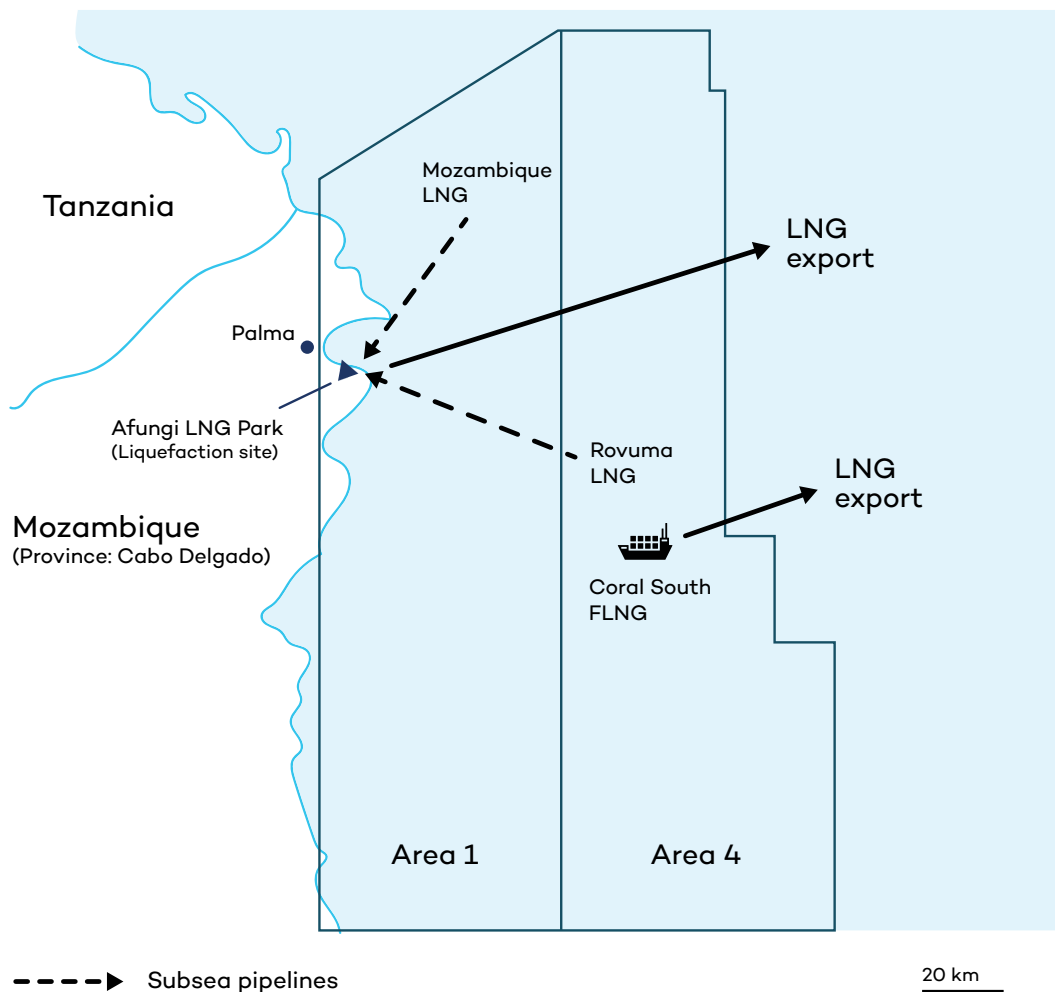
¹ In the rest of this report, the word "gas" is taken to mean natural gas unless otherwise indicated.



1.1 LNG Projects in Mozambique

Current and potential LNG production is centred around large gas reserves offshore from the Cabo Delgado Province in Northern Mozambique. There are three main projects, all with ties to the EU.

Figure 1. Location of LNG projects in Mozambique*



*Note: FLNG = floating liquified natural gas.

Source: Author diagram based on the Mozambique Mining Cadastre Map (Ministry of Mineral Resources and Energy, n.d.) and information from Piccoli et al., 2022, and Wensing, 2022.


Table 1. LNG projects in Mozambique

Project	Coral South FLNG	Mozambique LNG	Rovuma LNG
Lead/operator	Eni	TotalEnergies	ExxonMobil
Final investment decision	June 2017 (USD 7 billion)	June 2019 (USD 20 billion)	Pending
Status	Operational	Construction phase	Pre-construction
Capacity (MTPA)	3.4 (initial) 7.8 (possible expansion)	12.9 (initial) 43 (possible expansion)	15.2
First production	Started in 2022	Estimate: 2028	Unknown
Gas field location	Area 4	Area 1	Area 4
Liquefaction site	Floating LNG plant	Afungi Park	Afungi Park

Note: MTPA = million tonnes per annum.

Sources: Lusa, 2023b, Wensing, 2022, and research interviews.

In 2016, BP (based in London) signed a long-term agreement to purchase 100% of the LNG output (3.4 MTPA, Table 1) from Coral South for over 20 years (BP, n.d.). Since the start of the war in Ukraine, there has been interest from Italy's Eni to expand the existing capacity at Coral South with a second floating unit² (LNG Prime, 2022). The first shipment from Coral South left for Europe in November 2022 (Hill & Nhamirre, 2022), with recipient countries including Spain (GNL Global, 2022) and Croatia (LNG Prime, 2023). However, it is unclear where revenues from this project have gone, due to a lack of transparency (Mate, 2023a). Use of revenues appears conditional on the creation of a Sovereign Wealth Fund (Mate, 2023b), which has not happened by November 2023—a full year after the first shipment (research interviews; Lusa, 2023a).

In April 2021, operations at Afungi Park were halted when TotalEnergies declared force majeure due to an insurgency in Cabo Delgado (TotalEnergies, 2021). At Coral South, there were fewer disruptions due to FLNG operations being predominantly offshore (liquefaction of gas happens on a floating vessel). The insurgency and violence in Cabo Delgado threaten the future of LNG projects, seen by the EU as a way to reduce its own dependency on Russian gas. Consequently, in 2022 the EU pledged EUR 45 million in financial aid to the Mozambique army, and a further EUR 15 million was allocated to support a southern African military mission to the region (Guarascio, 2022). By October 2023, some activities had resumed at the Afungi site via consultants, though TotalEnergies had not officially announced a restarting of the Mozambique LNG project (research interviews). The earliest LNG export for the Mozambique LNG project is estimated to be 2028, which is 9 years after the final investment decision (see Table 1).

Rovuma LNG is at the least progressed stage, with a final investment decision expected by the end of 2023 (Derewenda, 2023).

² In October 2023 Eni indicated that a final investment decision on the second platform would be made by June 2024 (Landini & Roelf, 2023).



2.0 Negative Impacts and Economic Concerns

LNG projects in Mozambique have led to multiple negative social and environmental impacts, and there are significant problematic economic features. Due to the increased restrictions on press freedom in Northern Mozambique, actual impacts might be more severe than those reported to date.

2.1 Social Impacts

A key social impact has been the poorly managed and improperly executed **forced relocation** of over 550 households (TotalEnergies, n.d.) for the construction of the Afungi Park. Concerns recorded by community members and the environmental NGO Justiça Ambiental include poor consultation processes, insufficient financial compensation, and inappropriate land allocation—for example, fisherfolk were moved far away from the sea with impractical transport options (Feijó, 2023b; Rawoot, 2020; Wensing, 2022). Research by Observatório do Meio Rural notes additional factors related to extractive industry investment that have **increased social tension**, such as the state prioritizing investors, pressure on communities to accept unfair outcomes, low transparency, and increased corruption. High illiteracy rates have contributed to most jobs going to foreign workers (Feijó, 2023b).

An investigative report released in August 2023 revealed **insufficient human rights due diligence** (HRDD) in the Mozambique LNG project run by TotalEnergies, and these flaws have not been properly addressed in the subsequent HRDD Action Plan (UpRights, 2023). Since 2017, media representatives' access to Cabo Delgado has become virtually impossible without risk of arrest (Reporters Without Borders, n.d.). Journalists reporting possible gas-related corruption have faced criminal charges, had their offices attacked, been expelled from the country, and even gone missing (Wensing, 2022).

2.1.1 Links Between LNG and Conflict in Cabo Delgado

The insurgency³ in Cabo Delgado started in October 2017, five months after the final investment decision for Coral South LNG. The major attack at Palma in March 2021 came just hours after TotalEnergies announced plans to resume work at Afungi Park (Lister, 2021).

While such correlations in timing do not prove causation, it is plausible that the presence of gas projects has contributed to worsening the security situation (International Crisis Group, 2021). When natural resources, such as gas, are exploited by international companies (with foreign workers), and the local people do not feel the benefits (Vircoulon, 2021), the economic and employment exclusion, compounded by the other negative social impacts listed above, can contribute to violent uprisings.

³ Between October 2017 and November 15, 2023, there were 4,789 reported fatalities due to the conflict, including 2,050 civilians (Cabo Ligado, 2023). Almost 1 million people have been displaced (United Nations High Commissioner for Refugees, 2023), and effects on local infrastructure include damage and destruction to homes, water supply, classrooms, and health facilities (Feijó, 2023a).



2.2 Environmental Impacts

Significant **ecosystem damage** has been experienced, as onshore activities at the Afungi site (an area of 70 km²) have caused the destruction of forests, wetlands, and shorelines, leading to biodiversity loss and disruption of fauna and flora distribution. Offshore areas 1 and 4, with a combined area of 19,940 km² (Ministry of Mineral Resources and Energy, n.d.), are subject to drilling, dredging, underwater noise, and pollution, leading to habit degradation, biodiversity loss, and migration of animal species from the area (Consultec, 2015; ERM & Impacto, n.d.; Wensing, 2022). These combined impacts have major negative effects on tourism at the islands near Afungi Park (African Development Bank Group, 2019).

In the long term, if the LNG projects in Table 1 continue, they will contribute significantly to climate change through an **enormous release of greenhouse gases**. To illustrate the extent of this potential impact, burning just Mozambique LNG's initial maximum annual output (12.9 million tonnes of LNG) will produce **over four times⁴ as much CO₂ as all annual fossil fuel and industry activities in Mozambique itself** (7.2 million tonnes of CO₂ in 2021) (Ritchie et al., 2020). Full expansion of all projects in Table 1 would increase this ratio to 20 times.

2.3 Economic Concerns

2.3.1 Disproportionate Financial Support

Financial support for LNG has been far greater than for renewable energy.

By the end of 2020, financial support for renewables projects in Mozambique has been reported as EUR 201 million (Associação Lusófona de Energias Renováveis, & Associação Moçambicana de Energias Renováveis). By contrast, international public finance for the TotalEnergies Mozambique LNG project was estimated at **60 times greater⁵** at USD 13.8 billion (Hébréard & Grand, 2020). The huge difference in the scale of public investment for LNG and renewable energy indicates that public money is overwhelmingly driving fossil fuel investment, mainly for export, whereas renewables could directly help improve electricity supply in Mozambique, where only 31.5% of the population had access to electricity in 2021 (World Bank, n.d.). Other public support for LNG projects includes reduced rates of corporate income tax for the first 8 years of operation (Ministry of Economy and Finance, 2018).

⁴ Assuming 90% methane content of LNG. Total CO₂ emissions (including transport and operational processes) will be higher, while total GHG emissions (including methane leakage) will be higher still.

⁵ Using an exchange rate of 1 USD = 0.876 EUR for 2020 (Organisation for Economic Co-operation and Development, n.d.).



2.3.2 Increased Sovereign Liability

Government guarantees place significant liabilities on the state budget.

For Mozambique's national oil company (Empresa Nacional de Hidrocarbonetos [ENH]) to participate in LNG projects, the Mozambique government issued sovereign guarantees equivalent to USD 2.2 billion (in 2019 for Mozambique LNG) and USD 700 million (in 2017 for Coral South). This total of USD 2.9 billion is ENH debt. If the Rovuma LNG project progresses, then ENH will go further into debt (and require even more sovereign guarantees) to have a stake (Centro de Integridade Pública, 2019).

This is an example of a “presource curse” effect⁶: where the expectation of future revenues leads to negative economic and political effects before resource extraction even happens (Frynas & Buur, 2020). Given the profit-sharing mechanism described in the next section, under some scenarios, ENH's earnings from the projects will not even cover its participation debt (i.e., no net revenue), making ENH's stake a liability (West & Lépiz, 2021).

2.3.3 Project Contractual Design Limits and Delays Revenue

Mozambique is motivated to pursue LNG projects for the potential economic benefits in the form of revenues collected by the government and then spent on public services and infrastructure. **However, these revenues are uncertain and may not arrive until far in the future, if at all.** In 2018, the government published an estimate of revenues from LNG projects from four sources. First, a petroleum production tax, set at 2% and 3% of revenues for gas and condensate, respectively.⁷ Second, a “production bonus,” applicable only in the early years of the project and of limited value, as the project hits certain production milestones. Third, the government's share of the profit from the projects, which makes up the bulk of expected revenue. Fourth, revenues may be collected in the form of corporate taxes (Ministry of Economy and Finance, 2018).

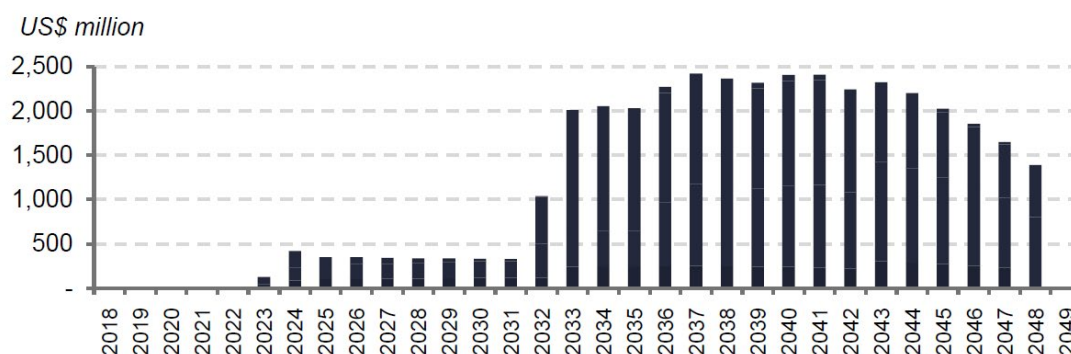
The government's share of profit, due to its equity holding, ranges from 10% to 60%, depending on a formula that delivers more to the government if the project becomes more profitable. The structure of the mechanism means that government revenues are expected to be initially low and begin to ramp up in the early to mid-2030s (Figure 2; note that project delays have further pushed back the timescales shown in this figure) (Ministry of Economy and Finance, 2018). This is designed to allow the concessionaires to recover their investment over the initial years and means that the **potential economic benefit to the government and the people of Mozambique depends heavily on the international LNG market in the 2030s and beyond.**

⁶ In contrast, a “resource curse” is when negative effects are experienced after resource extraction occurs.

⁷ By way of comparison, in 2015 when the details of the Coral South project had not yet been finalized, the average royalty and similar tax rate in Europe for the upstream oil and gas sector was much higher at 10% (Deloitte, 2017).



Figure 2. Government revenue estimates for Area 1 (Mozambique LNG project) in 2018, under the baseline scenario



Source: Ministry of Economy and Finance, 2018 (with permission).

The gas extraction consortiums have set up special-purpose vehicles in Dubai **to avoid paying withholding tax on dividends or interest**, compared to the 20% tax that would be paid under the Mozambique fiscal system. In their base scenario, Open Oil estimated the combined loss in revenue to be USD 5.3 billion (West & Lépiz, 2021). Another estimate in 2023 put avoided payments for the interest withholding tax portion alone at USD 1.3 billion to USD 2 billion (van Teeffelen & Kiezebrink, 2023).

2.3.4 Limited Direct Revenue Streams From the LNG Value Chain

Mozambique has abundant reserves of gas, but it is not significantly involved in the full LNG value chain (e.g., patents, manufacturing, extraction, beneficiation, transportation, international sales, etc.). Therefore, the foreign and multinational companies involved in the LNG projects make money at all these stages, but the financial benefit to Mozambique is limited to what the state receives from the projects through production royalties, corporate taxes, and profit sharing (research interviews).



3.0 Risks to LNG Financial Benefits and State Sovereignty

Analysis of the experience with the existing LNG projects suggests three key risk areas. Policy-makers should seriously consider whether the potential benefits outweigh the risks presented here.

3.1 Risk 1 – Long-term LNG demand from Mozambique uncertain

LNG revenues are dependent on LNG demand remaining strong for the next 20 years. Existing LNG projects in Mozambique are structured so that most of the potential fiscal revenues for the government will not arrive until the 2030s and 2040s. Given that the majority of revenues are generated from profit sharing, if the LNG operations become only marginally profitable, the revenues may be very low. To assess this risk, we have to look at the forces that will influence the LNG market in the 2030s and beyond.

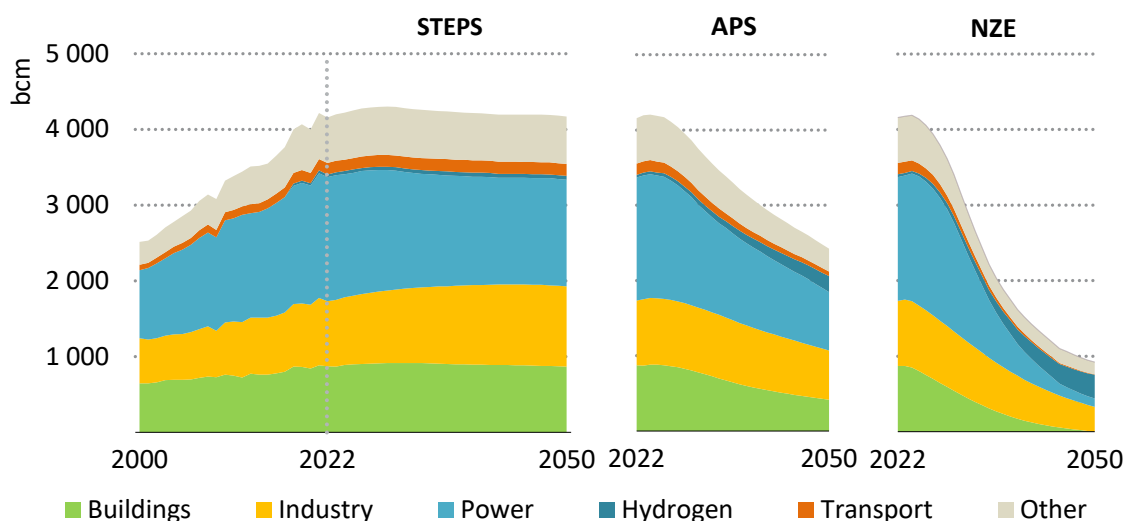
First, **the transition away from fossil fuels and toward renewable energy will gradually reduce demand for all fossil fuels, including gas.** For example, in March 2023, the EU reached a provisional agreement to raise the binding renewable energy target to 42.5% by 2030, approximately double the share compared to 2019 (European Commission, 2023). Furthermore, the EU's *Going Climate Neutral by 2050* document proposes a renewable energy share of more than 80% by 2050 (European Commission, 2019). If this is implemented, unprecedented renewable energy deployment will dramatically reduce the market for fossil fuels in the 2030s and 2040s.

This trend may be replicated globally for gas sooner than many previously assumed (Figure 3). Overall reductions in gas demand decrease LNG trade, which in turn influences decisions on LNG export projects in Mozambique.

The IEA's *World Energy Outlook 2023* reports that global LNG net trade was 479 billion cubic metres (bcm) in 2022 (IEA, 2023). Under the Net Zero Emissions (NZE) by 2050 scenario, this trade is projected to rise to 507 bcm by 2030 and fall to 121 bcm by 2050. If this scenario is realized, falling trade after 2030 will lead to serious excess capacity, and the IEA estimates that in this scenario around 75% of new LNG projects would fail to recover their initial capital costs. The IEA also produced scenarios based on Stated Policies (STEPS) and Announced Pledges (APS). **Under all scenarios, natural gas demand is estimated to peak before 2030.** Consequently, the LNG capacity currently in operation or under construction is sufficient for all scenarios until after 2040. In the NZE scenario, projects under construction are no longer necessary (IEA, 2023).



Figure 3. Global natural gas demand by scenario, 2000–2050



Source data: IEA, 2023 (CC BY 4.0).

Second, **even if demand for gas remains robust into the 2030s, other suppliers of gas could supply key markets.** Piped gas, where available, is generally cheaper than LNG. The war in Ukraine has resulted in reduced piped gas exports from Russia to Europe; while this may mark a permanent reconfiguration, it could be partially reversed in the future. Developing gas assets that are closer to markets could reduce demand for LNG from Mozambique. For example, the United Kingdom’s planned expansion of gas production in the North Sea would lead to reductions in imports (Government of the United Kingdom, 2023).

3.2 Risk 2 – Uncertain revenues for the government

LNG Revenues Are Linked to Volatile Gas Prices

Predicting commodity prices far into the future is notoriously difficult. If global ambitions to phase out fossil fuels are realized, the value of LNG may fall precipitously as countries phase out fossil fuels. The overall reductions in fossil fuel demand, geopolitics, possible development of piped gas infrastructure, and the entry of new competitors could create downward pressure on LNG prices, potentially leaving Mozambique with “stranded” LNG assets that can no longer be profitably operated.

Lower-Than-Expected Revenues From Independent Analysis

LNG has been promoted as an economic saviour for Mozambique, but a key problem is that estimations of revenue for LNG projects are usually supplied by the gas industry or other parties with a vested interest in fossil fuel extraction. As such, the revenue projections may be overstated or details of revenue structure omitted. Notwithstanding the uncertainties around gas prices, the government has estimated revenues of between USD 35 billion and USD 63.6 billion for commissioned projects⁸ during their lifetime (Ministry of Economy and Finance,

⁸ Mozambique LNG and Coral South FLNG projects where a final investment decision had been made.



2018). By comparison, an independent analysis in 2021 by Open Oil for the same projects, using open-source modelling and data, puts lifetime revenue at just USD 18.4 billion.⁹ The net present value in 2021 (assuming a 10% discount rate) of this revenue was only USD 3.4 billion (West & Lépiz, 2021).

The Effect of Increased Competition in LNG Markets

In 2019, when the final investment decision was taken for Mozambique LNG, Rystad indicated that this project's breakeven price was USD 5.5 per mmbtu (The American Oil and Gas Reporter, 2019), and McKinsey estimated new entrants to the market needed to be priced at USD 7 per mmbtu to remain competitive (Chong et al., 2019). While this type of analysis indicates that projects may remain solvent, it does not deal with the level of profit, and therefore government revenues that will be generated.

Given the potential excess capacity in the LNG market (as future LNG demand falls), prices will likely be subject to downward pressure caused by competition among suppliers. When demand is constrained, more expensive projects could be forced to halt operations, and prices reflect marginal production costs. In this circumstance, all projects must accept lower prices on the spot market unless long-term offtake agreements are in place. The pricing mechanism in offtake agreements for LNG projects in Mozambique is confidential (Ministry of Economy and Finance, 2018).

Conflict Could Endanger Future Gas Revenues

Both the Mozambique LNG and Rovuma LNG projects would liquify gas at the Afungi complex, which is near Palma and other locations that have been targets for insurgents. If the conflict in Cabo Delgado continues (or is worsened by the presence of the gas projects), future LNG exports could be endangered, costs related to security could increase, and the potential for any significant revenue for the state could further erode.

Revenue Siphoning and Misappropriation

Mozambique has supplied piped gas to South Africa from Pande and Temane since 2004, but government revenue has been minimal due to **poor contract terms and rent-seeking from Mozambican ruling elites** (Centro de Integridade Pública, 2013; Salimo et al., 2020). Similar factors could reduce revenue for LNG projects.

3.3 Risk 3 – Erosion of sovereignty: Protection of LNG projects at the expense of Mozambique

Powerful actors in Mozambique's economy are creating governance risks. Such companies secure the best terms for their operations while limiting the government from capturing project-based revenues or introducing regulations. Legal protections for investors provide far-reaching powers that can restrict government action around fiscal, energy, and security policy.

⁹ Base scenario gas price of USD 5–6 per mmbtu.



International Laws Protect Investors

International investment law allows for the development of agreements that specify what form of economic protection foreign investors have in host states. The investor–state dispute settlement (ISDS) system then allows investors to seek monetary compensation if the agreements are breached. All of the LNG projects in Table 1 have access to ISDS, and the Rovuma Basin Special Legal Framework essentially guarantees (via ISDS) that the government will not adopt any laws that could economically harm (defined as greater than USD 5 million) investments in the Rovuma Basin (Di Salvatore, 2022).

The key LNG operators in Mozambique (TotalEnergies, ENI, and ExxonMobil) have used ISDS in the past to overthrow court decisions or regulations (Di Salvatore, 2021). Since environmental and climate change regulations tend to reduce LNG project profits, **this access to ISDS could prevent improvements in environmental and climate change standards** (Di Salvatore, 2022). Other state regulatory activities may be similarly threatened by ISDS.

Some of the bilateral arrangements also have highly problematic clauses, including a stabilization clause that Mozambique cannot change its hydrocarbon laws without the consent of companies involved for 35 years, and if they do, any economic consequences fall on the government to compensate. In a context where Mozambique has high economic liability, the consequences of changing any of the conditions are huge. Furthermore, TotalEnergies has arrangements where all losses due to war, insurgency, and social instability must be compensated by the Mozambique government (research interviews).¹⁰

Security for Gas Over People

When insurgents attacked Palma, the town was not protected, but the Afungi site had 800 soldiers for defence (Hanlon, 2021). This is an example of a general trend where the government consistently prioritized the protection of gas investments over the civilian population, and this trend looks set to continue in the Cabo Delgado Reconstruction Plan (Nhamirre, 2022). The EU’s push to increase LNG exports from Mozambique could further promote this security imbalance at the expense of local communities (Ndebele, 2022).

Further Erosions of State Power

In the region surrounding the Afungi site, where the weakening of state capabilities has led to a growing inability to provide basic services, these have been complemented or even replaced by TotalEnergies and humanitarian organizations. In this context, TotalEnergies has started to play an outsized role, blurring the line between state and corporate responsibility. While the work itself is beneficial for the people and local economy, there is now confusion around the coordination and sequencing of initiatives (Feijó, 2023a). In this context, where the power balance has shifted toward TotalEnergies, the company could exert undue influence and control in the province.

These two processes, whereby multinational companies start to take on some of the functions normally provided by states and increase the areas in which they operate, present a risk that decisions that affect the residents are being taken by companies and not by elected officials.

¹⁰ The irony is that the presence of the gas projects likely fueled the insurgency in the first place.



4.0 Conclusions

4.1 “Gas for Development” Has Not Happened Yet

Since the announcement of large gas reserves off the Cabo Delgado coast in 2010, Mozambique’s development strategy has relied heavily on the financial returns from gas projects. It was expected that the economic windfall would increase GDP, spur industrialization, and create jobs. Twelve years later, this has not happened. In fact, the country is in a worse socio-economic position than in 2010. Growth in GDP has decreased, while debt, inequality, unemployment, and poverty have increased. Provincially, Cabo Delgado has been worst affected (Gaventa, 2021).

Although there have been other factors, such as a corruption scandal that resulted in several donors withdrawing direct financial support for Mozambique in 2016, LNG has not yet provided the positive boost to the economy that was expected (Wensing, 2022). As LNG exports began in 2023, the question becomes whether it is still reasonable to expect these LNG projects could provide sufficient future benefits to outweigh the negative impacts outlined in Section 2.

4.2 Expanding LNG Projects May Be Detrimental for Mozambique

Given the structure of the existing LNG deals and the uncertainties in the LNG market, there is a plausible scenario in which revenues from LNG production never become transformative. Government planning should consider this scenario and its implications for economic strategy.

The risks described in this report show that future demand for fossil gas is uncertain and that the revenues from whatever volume of LNG is exported could be substantially less than gas industry projections or government expectations. Furthermore, the LNG projects could be part of the reason for increased violence in Cabo Delgado, and further investment in these projects will not address the root causes of the conflict. The LNG projects have a revenue design that prioritizes the consortiums involved in their operation and a legal framework that could turn them into a liability for Mozambique. An expansion of these LNG projects through new EU-driven projects will feed into this existing setup, where most benefits are taken out of the country while most of the risk falls to Mozambique.

Taken together, these risks also increase the chances of

- **stranded assets:** the government has equity positions paid for with debt, and unprofitable projects may become a net liability.
- **gas resources become a “curse”:** struggles for control of gas assets become politically divisive and breed corruption, wealth concentration exacerbates inequality and a less diverse economy, and non-gas industries face neglect.
- **an erosion of sovereignty:** legal protections allow gas companies to restrict energy, security, and economic policy and push economic liability onto the state.



4.3 Recommendations

Mozambique needs to fully address the harm that has already been caused by LNG projects, reassess the continuation of Coral South, and focus on alternatives to future LNG development.

4.3.1 Mitigate the Negative Impacts of LNG Projects

1. The government should ensure that TotalEnergies deals with unresolved issues related to the Afungi site, including relocation and compensation for communities and ecosystem damage.
2. Ongoing security interventions in Cabo Delgado must protect local people in addition to the LNG infrastructure and the Afungi site.
3. Because the EU is linked to these LNG projects and has financed military action in Cabo Delgado, it should also support necessary reparations.

4.3.2 Actions for LNG Projects

Coral South (Operational)

Even though this project is already operational, a huge amount has changed in terms of climate change actions and gas-related uncertainties since the project inception.

Mozambique should conduct a full, independent financial reassessment considering the risks raised in this report. At the very least, Mozambique should investigate adapting the contract revenue structure and ISDS elements so that the country receives significant financial benefits and fair treatment in all years of operation.

Mozambique LNG (Delayed, Under Construction)

It will be at least 5 years before this project could be operational, and by then the prospects for LNG export are likely to be even worse as the global low-carbon energy transition accelerates.

Mozambique should rather pursue projects with long-term sustainability and few environmental impacts, and that directly improve socio-economic issues in the country. Identifying the best opportunities will require a thorough, economy-wide analysis. Responsible mining of critical minerals and expanding existing employment sectors (such as agriculture and tourism) are potential candidates. Renewable energy investment would also improve electricity access.

Future LNG Projects

These would include Rovuma LNG, expansion of Coral South, and more gas field exploration. As these projects are less advanced, or may come online even later than Mozambique LNG, for the same reasons, they should not be pursued.

Role of the EU

The EU (including member countries and EU-based companies) may promote new LNG development in Mozambique by investing in new facilities, supporting LNG export, signing



long-term agreements to buy LNG, or financing military protection. However, the EU has a responsibility to consider the impacts of these actions on Mozambique. Agreements that provide little economic benefit to the people of Mozambique and undermine sovereignty are a form of unjust resource extraction. Furthermore, encouraging or facilitating the development of new LNG capacity is incompatible with efforts to address climate change. The EU should align energy and climate policy with its influence in Mozambique and support low-carbon, sustainable development.

4.3.3 Economic Diversification

All developmental and infrastructure projects (including alternatives to LNG investment) need to address social and environmental impacts and have favourable financial agreements for Mozambique. In such sectors, Mozambique should try to gain as much along the entire value chain as possible. Many distributed initiatives typically benefit more local people—with fewer risks—than megaprojects.

Lessons from LNG projects could help to avoid similar mistakes in future projects in other sectors.

Mitigating Social and Environmental Impacts

1. Mozambique should implement well-managed community engagement processes that achieve equitable outcomes. These require skilled and trusted intermediaries, plus free access to easy-to-understand information in the appropriate language.
2. Mozambique should initiate transparent HRDD processes at project onset and continue them throughout project lifetime. This will reduce company liability for human rights violations.
3. Mozambique should strengthen environmental and emission regulations to reduce ecological impact and improve monitoring of compliance.
4. In Cabo Delgado, it is particularly important that development projects address underlying issues of poverty and inequality, as these are drivers of conflict. This includes provision for sufficient local employment and skills development.

Contracts and Deals With International Partners or Companies

1. Fair proportion and timing of financial rewards: Deals with foreign companies must not take the majority of profits offshore in early years and delay payments to Mozambique.
2. Companies must be subject to standard tax laws, and not be allowed to evade tax payments.
3. Very careful and strict assessment of contracts to ensure that international investment law does not place unfair constraints, risk, or liability on Mozambique and the best interests of its people.



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