



Mozambique's Gas Economy from an Energy Transition and Sustainable Development Lense

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EXECUTIVE SUMMARY

The Southern African Resource Watch (SARW) is implementing a project titled Action on Oil and Gas in Southern Africa (AGOSA), providing a framework for an examination of Mozambique's oil and gas extraction sectors within the context of the interplay between natural resource wealth, socio-political dynamics, and transition towards renewable energy, aligning with the Paris Agreement commitments in Mozambique.

Mozambique's significant natural gas reserves, estimated at over 100 trillion cubic feet, which attract considerable foreign investment that is supported by an evolving legal and regulatory framework, has been marred by elite capture and limited trickle-down benefits for the broader population, due to elusive equitable resource distribution. In addition, security challenges, particularly in conflict-affected regions like Cabo Delgado, pose significant risks to extraction operations. Therefore, to foster sustainable economic development, there is a need to prioritise equitable income distribution and job creation, particularly for local communities affected by extraction activities as well as strengthening security measures through collaboration between government entities, local forces, and stakeholders which is critical to safeguard infrastructure, personnel, and affected communities.

To address the dual challenges of managing its vast natural resource wealth and navigating a just transition to renewable energy, Mozambique must ensure that oil and gas activities deliver tangible benefits for local communities; that investments in infrastructure, healthcare, and education foster inclusivity, addressing historical inequalities, and improving livelihoods. Mozambique should enhance governance, strengthen political integrity, safeguard human rights, and advance a sustainable energy transition, towards harnessing its natural resources for inclusive growth and long-term prosperity.

CONTEXT AND METHODOLOGY

Although international oil and gas companies moved into Mozambique and carried out extensive onshore, but limited offshore explorations from 1948 onwards, some of which led to the discovery of the Pande Gas Field in 1961 by the Gulf Oil company, it was only in the 1980s that Mozambique's oil and gas sector experienced significant development with the exploration of the Temane and Pande gas reserves by the South Africa giant, Sason, prompting the regulatory reforms in the process. This was later boosted by expansive natural gas resources discoveries in the Rovuma Basin, between 2011 and 2014, after years of exploration. These discoveries have the potential to position the country as a key player in the global (Liquified Natural Gas) LNG market.

Regulatory reforms were implemented with the aim of separating commercial and regulatory functions so as to promote transparency, accountability and sustainable development. However, these efforts are hindered by the elite capture of the reforms process, resulting in the consolidation of power and private accumulation of resources, especially through ruling party-owned companies. This, therefore, undermines institutions such as the National Petroleum Institute (INP) and the Tax Authority of Mozambique (TA) which remain critically under-resourced, limiting both their capacity and effectiveness.

The oil and gas sector is largely dominated by conglomerates such as TotalEnergies and ExxonMobil. There are, however, other key stakeholders who include, government ministries, other international oil companies, non-governmental organisations (NGOs), and local communities. Recently, increasing involvement and influence of rising powers such as Brazil, India and China is also reshaping the energy landscape,

particularly in the emergence of niche opportunities for innovation targeting low-carbon and fossil-fuel energy pathways. Unfortunately, the integration of small-scale actors into the sector has not been prioritised in mainstream discussions on Mozambique's oil and gas potential despite institutions such as the African Development Bank (AfDB) providing resources to facilitate the integration of small-scale actors, restrictive access requirements notwithstanding.

While the discovery of vast oil and gas reserves in Cabo Delgado has unearthed significant economic potential, unending conflict threatens to destabilise the region and erase any likely economic gains. Since 2017, an Islamic insurgency, influenced by poverty, financial exclusion, weak institutions, and competition over resources has persisted in the region. While the seemingly resource curse thesis suggests resource-rich countries often underperform economically due to destabilisation, examples from the Middle East, among others, show that effective resource governance can accelerate development and fundamentally change lives. In Mozambique, however, resource accumulation by powerful elites, coupled with high unemployment, lack of opportunities and poor service delivery has exacerbated tensions, highlighting the need for equitable resource distribution and stronger institutions.

Major projects in the Rovuma Basin, such as the Mozambique LNG facility and the Rovuma LNG plant, are set to boost the country's LNG export capacity significantly. Despite delays caused by COVID-19 and insurgent attacks, these projects underscore Mozambique's potential as a global energy player. Technological advancements, including robotics and Artificial Intelligence, are also improving the efficiency and safety of oil and gas operations. However, the sector faces challenges in transitioning to renewable energy sources and balancing economic growth with sustainability.

In particular, Mozambique's current energy transition challenges also emanate from its attempt to leverage its commitments under the Paris Agreement which see the country progressively phasing out oil and gas production by advocating for renewable energy. Organisations, activists and campaigners for a just energy transition in the country have often come under attack for demanding the abandonment of fossil fuels. The analysis below flows from a study of this prevailing contradiction. Using purposive sampling techniques, including typical and expert case sampling, a total of fifteen (15) individuals, drawn from key sectors such as government ministries and local civil society organisations, participated in the study. Key informant interviews were conducted to gather in-depth insights, and the data collected was analysed using the Applied Political Economy Analysis (APEA) framework. Challenges were faced with representatives from international energy companies who demonstrated reluctance to participate, resulting in limited information from this group. Regardless, a triangulation combining the insights gathered from other stakeholders, literature review and the structured analysis provided by the APEA framework, created room to overcome the challenges.

MOZAMBIQUE'S OIL AND GAS SECTOR LANDSCAPE

Initial estimates indicate that Mozambique has significant natural gas reserves of over 100 trillion cubic feet, which is expected to double following the prospection phase in the Rovuma basin. Two onshore fields south of Mozambique (in Pande and Temane) are already well-established, operated by Sasol, a South African energy company. Gas is exported via a pipeline connecting the Pande and Temane fields to South Africa, after processing in a central facility.



The discovery of natural gas in the Rovuma Basin by the American company, Anadarko Petroleum, between 2011-2014, placed the country as one of Africa's largest proven natural gas reserve holders. Following the Anadarko Petroleum's sale of its shareholdings in four African countries, including Mozambique – a natural gas project with proven reserves of 75 billion cubic feet in the Area 1 basin block located in the Rovuma basin, TotalEnergies became the majority shareholder of the Mozambique LNG project in the Rovuma Basin Block 1 in 2019. Despite its 2020 investment decision, Mozambique's LNG production remains uncertain as TotalEnergies works to lift the *force majeure* imposed in April 2021 following security concerns. The suspension halted project financing, but TotalEnergies has since reinitiated discussions with financial partners to secure commitments for restarting operations.

On February 7, 2024, TotalEnergies CEO, Patrick Pouyanné, confirmed efforts to reactivate financing, emphasizing that once funding is secured, the project will resume. Reports indicate that TotalEnergies has asked funders to approve the project's restart within Q1 of 2024 but potential financial backers remain cautious. According to Africa Intelligence (January 22, 2024), some lenders, including Dutch lender Atradius and a Korean bank, have expressed security-related reservations and are reconsidering their commitments.

While TotalEnergies remains optimistic about restarting Mozambique LNG, the project's future hinges on securing financial backing and addressing investors' concerns about security and stability in the region. The following financial institutions are involved in the LNG projects in Mozambique:

Compared to the country's rapidly growing natural gas industry, Mozambique's oil sector is still in its infancy. Oil production was scheduled to start in 2015 in an oil field near the Temane natural gas field, which Sasol also operates. Production was anticipated to reach 15,000 barrels per day and was intended for export to South Africa. Currently, there is no information indicating that Mozambique has already started producing crude oil.

The political economy surrounding oil and gas extraction in Mozambique has evolved significantly since the country gained independence in 1975. Once considered one of the poorest nations globally, Mozambique has seen notable transformation in its economic landscape, particularly following the discovery of substantial oil and gas reserves. With a population of over 32 million people, the country holds great aspirations that these natural resource discoveries will catalyse economic growth and stability.

Economic analysts, Mitchell (2021) for example, argue LNG projects could catalyse transformative economic growth in the country.^[4] However, persistent security challenges and corruption pose significant risks to these developments, with Mozambique ranking 146th out of 180 countries on the Corruption Perceptions Index. At the local level, the anticipated benefits of these projects have yet to materialise. Many communities are yet to experience the job creation they were promised. Instead, they face the erosion of their livelihoods due to various disruptions, including the 2021 *force majeure*.

Hence, Mozambique presents a complex interplay of opportunity and challenges that resonate with experiences in other resource-rich African nations. As noted above, the influx of foreign investments and substantial export revenues related to oil and gas can be detrimental to developmental efforts because of corruption and lack of accountability. This has significant implications for income distribution across the broader population. The capital-intensive nature of mining operations often leads to a paradox where, despite substantial financial investments, the expected job creation and other attendant benefits fall short. Research by Rosenfeld (2012) highlights this phenomenon, indicating that the mining sector generates

fewer employment opportunities relative to the scale of investment. This suggests a limited direct benefit to local communities who might have hoped for economic upliftment through these ventures (Castel-Branco, 2008).

Mozambique has established a "benefit sharing" mechanism aimed at distributing a portion of the revenues generated from natural gas extraction directly to affected communities, alongside a "sovereign wealth fund" (SWF) that serves as a state-owned investment vehicle to manage most of these revenues with the goal of promoting sustainable economic development for future generations through prudent investments. Those two mechanisms were formalised in the context of the country's natural gas sector development, particularly following significant discoveries in the Rovuma Basin, coinciding with the time when legislative frameworks and agreements began to take shape around 2014-2015. The national decree on benefit-sharing for the oil and gas sector, has increased the benefit from revenues for communities from 2.75 to 10 percent, with the additional 7.25 percent going to the provincial capital to finance infrastructure projects and development programmes, which will have a multiplier effect on the local economy. The Mozambique Sovereign Wealth Fund (MSWF) was established in January 2024. The fund was created by Law No. 1/2024 to manage revenue from natural gas development in the Rovuma Basin. However, significant challenges remain, including the need for active community engagement in the decision-making processes related to benefit-sharing; the need for capacity building to equip local communities with requisite skills to manage allocated funds effectively, and the importance of implementing robust anti-corruption measures within both the benefit-sharing framework and SWF structures to ensure transparency and accountability.

While foreign investments and export revenues can drive economic growth, they also risk exacerbating income inequality, with benefits concentrated among a few. The capital-intensive nature of mining and extraction may lead to limited job creation, leaving local communities without the expected economic gains. These dynamics underscore the need for effective wealth management and equitable distribution of resource revenues to ensure sustainable and inclusive economic development in Mozambique.

Oil and gas extraction has crucial implications for the ongoing insurgency and the humanitarian crisis afflicting the region of Cabo Delgado. Since the onset of the violent conflict in 2017, exacerbated by militant attacks targeting locations like Palma, home to TotalEnergies' significant LNG project, Mozambique has grappled with the compounded effects of resource wealth and socioeconomic disenfranchisement. In 2021, TotalEnergies declared a "force majeure," halting operations due to the escalating conflict that underscores the fragile interplay between economic aspirations and security challenges in resource-rich regions (De Beaupy et al., 2021).

The disconnect between national projects and local realities is exacerbated by the heavy emphasis on gas exports, which relegates the energy needs of the Mozambican populace to the periphery. Mozambique faces significant energy poverty, as less than 50% of its population has access to the national electricity grid. The disparity is particularly pronounced in rural areas, where only 22% of residents are connected, in stark contrast to 88% of urban dwellers who have access. Furthermore, the lowest 40% of households are disproportionately burdened, spending over 15% of their average income on electricity, highlighting the economic strain associated with energy access in the region.



Despite the country's vast natural resources, the local population remains marginalised, with limited investments in renewable energy sources, further compounding their struggles and the country's potential to meet its aspirations for SDG7 on affordable, reliable, sustainable and modern energy for all. Instead of gaining access to affordable energy, many citizens find themselves disenfranchised as most of the gas is directed toward foreign markets. The COVID-19 pandemic intensified these challenges by disrupting project timelines and reducing workforce capacities, resulting in significant delays for the LNG initiatives. These disruptions have profound implications, pushing the expected timeline for gas extraction in Area 4 from 2025 to a projected 2030, as reported in The Legal 500 Podcast (2021).

SECURITY CONCERNS

Since 2017, Cabo Delgado, Mozambique's northernmost province and home to the Rovuma Basin, is the scene of an insurrection. The peak of the insurgency happened on 24 March 2021, when the Islamist militia affiliated with Islamic State launched a coordinated attack on the city of Palma in, the stronghold of the Mozambique TotalEnergies' LNG operations, leading TotalEnergies to declare the force majeure in April 2021. Battles between the Islamist militants and security forces lasted for about two weeks before state forces regained control of the area. The ongoing militant attacks in the Cabo Delgado province poses a significant threat to Mozambique's burgeoning LNG industry and its broader economic aspirations, especially with an unbalanced energy mix that comprises of Coal 0.1%; Oil 16.2%; Natural gas 7.8%; Hydro 11.6%; and Biofuels and waste 64.3% .

In July 2021, the first personnel from the Rwanda Defense Force and Rwanda National Police arrived in the province of Cabo Delgado, to cover the districts of Mocimboa da Praia and Palma (the stronghold of Gas explorations). At the same time, the Southern African Development Community Mission in Mozambique (SAMIM) was also deployed to Cabo Delgado, but to areas further from the gas projects. SAMIM aimed to support Mozambique in combatting terrorism and acts of violent extremism, and it seemed to have the primary role of protecting the local population and restoring security. Although deployed in the same province, there was no proper coordination or sharing of strategic information between the Rwandan, SAMIM and host country forces, which resulted in several friendly fire incidents. SAMIM's mandate in Cabo Delgado ended in mid-2024. The bilateral agreement to deploy Rwandan troops in Mozambique was, and remains, secret. It is known only to the two countries' top leadership and was never presented to the Mozambique parliament.

The instability has created a precarious environment for investors and hindered local development and security initiatives. As the Mozambican government seeks to navigate these intertwined issues of economic potential, local disenfranchisement, and security challenges, the future of its oil and gas sector and its citizens' overall well-being remains uncertain. Thus, the political economy of oil and gas extraction in Mozambique serves as a critical case study on the need for integrated approaches that address the risks of corruption, security, and local community engagement in resource exploitation endeavours.

LEGAL AND POLICY AND FRAMEWORK IN THE ENERGY SECTOR

Overall, the regulatory framework for oil and gas was developed as the exploration evolved and the energy regulatory framework was also improved alongside. Central to this is the fact that

companies wishing to engage in upstream or downstream operations must acquire a valid license. This regulatory framework includes a comprehensive taxation system encompassing multiple levies such as the Industrial and Commercial Profits Tax (IRPC), Value Added Tax (VAT), Municipal Taxes, and Customs Duties. Beyond this, there is a heightened expectation among stakeholders that local resources will be leveraged not only for the benefit of foreign investors but also for national development. The overarching aspiration is to use local content and resources effectively, creating a multiplier effect that enhances economic growth, creates jobs and fosters sustainable development. As Mozambique navigates the complexities of its political economy in the context of oil and gas extraction, the balance between foreign investment, local benefits, and environmental sustainability will be crucial in shaping the nation's future. The country has progressed well in setting up a progressive legal framework promoting renewable energy. However, the sector also faces significant challenges, including inconsistent implementation of regulations, infrastructure deficits, and over-reliance on foreign expertise. In fact, one of the sector's greatest strengths lies in its robust legal and regulatory framework, which provides clarity and stability for investors.

The Constitution of the Republic of Mozambique establishes state ownership of natural resources, ensuring strategic control over energy assets. This foundational principle is reinforced by laws such as the Petroleum Law (Law no. 21/2014) , amended in 2022, and its accompanying regulations, including the Petroleum Law Regulation (Decree no. 34/2015) and the Licensing of Facilities and Petroleum Operations Regulation (Decree no. 84/2020) . The Electricity Law (Law no. 12/2022) promotes private sector participation and renewable energy development. Complementary regulations, such as Decree no. 58/2014, establish tariff regimes for renewable energy, incentivising investment in solar, wind, and hydropower projects. The Mega-Projects Law (Law no. 15/2011) further supports large-scale energy initiatives through public-private partnerships, diversifying the energy mix and reducing reliance on fossil fuels. These instruments create a predictable environment for investment, particularly in the oil and gas sector, which has attracted significant international interest.

The discovery of substantial natural gas reserves in the Rovuma Basin opened up new opportunities for economic growth and energy exports, positioning the country as a significant player in the global energy market. The regulations promoting decentralised energy solutions, enabling off-grid communities to benefit from renewable energy technologies; the insurance of communities affected by energy projects to be adequately compensated and resettled, balancing economic growth with social welfare; as well as the emphasis in environmental protection and social responsibility, which are critical for sustainable development, demonstrate the country's commitment to expanding energy access, particularly in rural areas and to responsible resource management and inclusive development.

However, the energy sector faces challenges that hinder its full potential. One of the most pressing issues is the inconsistent implementation and enforcement of regulations, as well as heavy bureaucratic inefficiencies and project approvals delays that often slow the execution of energy projects. The ongoing tension between the Mozambican government and petroleum investors is prominently illustrated by disputes regarding tax obligations under the Petroleum Tax Law (Law no. 27/2014) . A key point of contention involves the interpretation of "profit oil" within production-sharing agreements (PSAs). Investors assert that the government's methodology for calculating taxable profits is excessively expansive, resulting in tax liabilities that exceed initial projections. This situation undermines investment confidence and may deter future exploration activities in the region.



Additionally, infrastructure deficits, particularly in rural areas, constrain the sector's ability to deliver reliable electricity to all regions. Limited transmission and distribution networks remain a significant barrier to expanding energy access, despite efforts outlined in the Electricity Law (Law no. 12/2022) to address these gaps.

Moreover, the sector's reliance on foreign expertise, as outlined in Decree no. 63/2011, highlighting a skills gap in the local workforce, limits the sector's long-term sustainability. Greater emphasis on local workforce development and knowledge sharing is needed to address this issue. Furthermore, progress in renewable energy has been slower than anticipated. Despite regulatory support, the sector remains heavily dependent on fossil fuels, particularly natural gas, with renewable energy projects accounting for a small share of the energy mix. Barriers such as high upfront costs, limited financing mechanisms, and inadequate grid infrastructure have hindered the scaling up of renewable energy initiatives.

Overall, Mozambique's energy sector has significant strengths, including a robust legal framework, abundant natural resources, and a growing focus on renewable energy and sustainability. However, challenges such as inconsistent implementation, infrastructure deficits, and reliance on foreign expertise must be addressed to unlock the sector's full potential. By strengthening institutional capacity, investing in infrastructure, and accelerating renewable energy development, Mozambique can achieve a sustainable energy transition and drive inclusive economic growth. The country's energy sector holds immense promise, but realising this potential will require concerted efforts to overcome existing barriers and build a more resilient and inclusive energy system.

PRESENT PERSPECTIVES ON THE ENERGY TRANSITION IN MOZAMBIQUE

Beyond fossil fuels, Mozambique has immense renewable energy potential, particularly in hydropower, solar, and wind, aligning with global energy transition goals. Mozambique's energy transition is gaining momentum, driven by its commitment to reducing greenhouse (GHG) gas emissions and aligning with global climate goals. In 2021, the country submitted its updated Nationally Determined Contributions (NDC), which set an ambitious target of reducing 40 million tons of CO₂ equivalent (tCO₂eq) in GHG emissions between 2020 and 2025. This updated NDC spans various sectors, including energy, forestry, biodiversity, agriculture, fisheries, sustainable land use, waste management, industry, water resources, health, infrastructure, urban development, and education. The estimated financial requirement for implementing these measures is approximately USD7,58 billion, covering both adaptation and mitigation strategies. Additionally, Mozambique has begun developing its Long-Term Low Emission Development Strategy (LT-LEDS), which will outline the country's emissions trajectory up to 2050, ensuring alignment with international climate commitments.

Energy diversification, with a strong emphasis on renewable energy sources such as solar, wind, and hydropower is central to Mozambique's energy transition, aimed at reducing the country's reliance on fossil fuels and mitigating its environmental footprint and advancing a cleaner energy matrix. Through initiatives like the Renewable Energy Fund (REF) and international partnerships, policies such as the Electricity Law (Law No. 12/2022), mini-grid interconnection rules, and tariff regimes, the government actively promotes renewable energy projects and provides a robust regulatory framework to integrate renewables into the energy sector.

Energy efficiency plays a pivotal role in the Mozambique's energy transition strategy, aimed at optimising energy consumption by enhancing energy management practices and significantly reducing emissions. This focus on efficiency is critical for maximising the output from renewable energy sources and ensuring the optimal utilisation of energy resources. Furthermore, Mozambique is committed to improving energy access for marginalised communities uplifting living standards and promoting social equity, ensuring that the benefits of the energy transition are distributed fairly across society. Hence, addressing energy poverty and supporting broader socio-economic development goals.

For Mozambique to achieve its energy transition goals, it requires substantial financial investment. The NDC estimated USD7,58 billion, which will also be directed to renewable energy infrastructure development, to catalyse the establishment of green energy systems while generating employment opportunities that could stimulate economic growth. Mozambique has developed a comprehensive policy and regulatory framework to support these initiatives to promote renewable energy projects and encourage private sector investment. The adoption of a long-term perspective by developing Long-Term Low Emission Development Strategy (LT-LEDS), engagement with international institutions and seeking financial and technical support from global climate funds such as the Green Climate Fund (GCF), the Adaptation Fund, and bilateral partnerships are essential vehicles for mobilising the necessary resources to implement its NDC commitments and achieve its long-term climate goals.

Despite persistent challenges such as gaps in legislation for concession contracts, lengthy approval processes, over-reliance on international funding and political instability, currency fluctuations, and insufficient guarantees to mitigate investment risks all undermine the progress made and pose significant barriers to the rapid development of renewable energy projects. These developments consequently overshadow abundant natural resources, including the country's vast potential for solar, wind, and hydropower, which present substantial opportunities for advancing its energy transition. In support of its long-term sustainable development goals, these challenges can be addressed by strengthening regulatory frameworks, implementing stronger financial governance and transparency to ensure the effective allocation and utilisation of resources, increased international cooperation, and community-focused renewable energy initiatives. The success of this transition will depend on the collective efforts of the government, private sector, international partners, and local communities, all working together to achieve a sustainable and equitable energy future.

ECONOMIC, POLITICAL, AND SOCIAL IMPACTS OF ENERGY TRANSITION IN MOZAMBIQUE

While Mozambique's oil and gas industry is expected to significantly contribute to its Gross Domestic Product (GDP) in the coming years, with large-scale projects such as LNG plants as the primary driver of foreign investment, high unemployment rates currently betray this prospect. Further, the uneven distribution of benefits, impacted by environmental degradation and social disparities is deepening. Although concerted efforts by civil society organisations to raise awareness on these issues are constrained, leading to limited ability in influencing progressive governance reforms. As a result, prevailing policies in the extractives sector are shaped by powerful elites and are, therefore, misaligned with broader public interest. This dynamic creates a complex interplay between economic development, political stability, and social equity.



POLITICAL AND ECONOMIC NEXUS

Mozambique has experienced a series of transformations since gaining independence from Portugal in 1975. While the country's economic growth has been impressive, with an average GDP growth rate of eight (8) percent between 2001-2011, the benefits have not translated to significant improvements in the lives of most of the population. The World Bank has raised concerns about the slowing rate of poverty reduction in recent years. The country also performs poorly on governance and corruption indices such as the Mo Ibrahim Foundation and World Bank indices on Governance, Transparency International's Corruption Perceptions Index, and Revenue Watch International's Resource Governance Index. The ruling party, Mozambique Liberation Front (FRELIMO) wields significant control over the state, influencing prevailing political dynamics, particularly elite capture of the state and patrimonialism, which are evident in the petroleum sector.

INSTITUTIONS AND STRUCTURES

The petroleum sector in Mozambique is subject to regulation by several key institutions. The Ministry of Mineral Resources and Energy (MIREME), the National Petroleum Institute (INP), and the national oil company, Empresa Nacional de Hidrocarbonetos de Moçambique (ENH), all have regulatory functions within the sector.

The INP holds the core regulatory functions and oversees the sector. The Council of Ministers (CoM) provides further oversight in the sector, which is ultimately responsible for issuing decrees, policy development, managing concessions, and royalty collection. This arrangement is intended to facilitate efficient and timely decision-making but also limits Parliament's oversight of the sector and may allow for corrupt practices. In addition to these institutions, the Ministry of Land and Environmental (MTA) regulates Environmental Impact Assessments (EIAs) related to the petroleum sector.

Despite a generally considered adequate legal and regulatory framework, implementation challenges persist due to the lack of formal compliance mechanisms. Moreover, national petroleum-related institutions face significant hurdles in fulfilling their mandates, stemming from a lack of petroleum-related experience and technical expertise, centralised and bureaucratic command structures that lead to institutional paralysis, ineffective coordination across the sector, and political interference. These challenges hinder efforts to promote responsible and effective petroleum sector management and improve industry transparency and accountability.

ECONOMIC CONTRIBUTIONS AND SOCIAL CHALLENGES

The oil and gas sectors have been instrumental in boosting Mozambique's economy, contributing substantially to GDP and creating employment opportunities, both directly and indirectly. These industries have also attracted significant foreign direct investment, positioning Mozambique as a key player in the global energy market. However, the economic benefits are unevenly distributed, with wealth concentrated in urban centres and among elites, while rural and resource-rich regions remain underdeveloped. This disparity has deepened regional inequalities, fuelling discontent among marginalised communities.

The social impact of resources extraction are profound and often detrimental to the interests of poor communities. Large-scale resettlement projects, such as the Cateme resettlement in Tete province and the construction of Afungi

Park by TotalEnergies in Cabo Delgado province, have displaced thousands of families, leading to significant socio-economic disruptions. Inadequate consultation processes, insufficient compensation, and unsuitable land allocation have left many communities worse-off and led to livelihoods disruption and heightened social tensions as communities feel excluded from the benefits of resource extraction. Further, increased deforestation, soil erosion, and water contamination, particularly near extraction sites further compounds these challenges, threatening local ecosystems and community livelihoods, and exacerbating poverty and vulnerability.

Robust environmental regulations and enforcement mechanisms are urgently needed to mitigate these effects, but implementation remains weak. The lack of transparency and accountability in the sector has also fuelled corruption, with foreign investors often prioritised over local communities. This has created a climate of mistrust and resentment, particularly in resource-rich but underdeveloped regions like Cabo Delgado.

RISKS AND CHALLENGES OF ENERGY TRANSITION

Phasing out oil and gas presents significant risks, including economic instability due to the loss of revenues and job losses in the extractive industries. This transition also poses challenges regarding energy security and the need for substantial investments in renewable energy infrastructure. Government perspectives often emphasise the need for a gradual transition to avoid economic shocks. Rights holders, including local communities and indigenous groups, highlight the need for equitable policies that do not exacerbate existing social inequalities. Balancing these perspectives is crucial for a just transition. For instance, policies must ensure that the transition to renewable energy does not marginalise communities dependent on fossil fuel-related jobs.

Potential challenges include resistance from vested interests, inadequate funding for renewable projects, and the slow pace of policy implementation. Mitigation strategies involve diversifying the economy, investing in education and retraining programs for affected workers, and ensuring transparent and inclusive policy-making processes.

Mozambique's approach to phasing out oil and gas carries profound implications for its regional and global commitments to sustainable development and climate action. Successfully navigating this transition requires balancing economic stability, energy security, and social equity, ensuring no community is left behind. By investing in renewable energy infrastructure, fostering economic diversification, and promoting inclusive policymaking, Mozambique can become leader in sustainable energy transition. In doing so, not only will the country fulfil its climate obligations but its example can potentially serve as a model for balancing environmental stewardship with economic and social resilience in the global south.

HUMAN RIGHTS AND SOCIAL UNREST

The human rights implications of energy extraction are deeply concerning. An investigative report released in August 2023 highlighted significant flaws in the human rights due diligence (HRDD) processes associated with the Mozambique LNG project led by TotalEnergies. Many of these flaws remain unaddressed, perpetuating social unrest and discontent within affected communities. Restrictions on media access to Cabo Delgado since 2017 have further stifled essential discourse around corruption and human rights abuses linked to the extractive sector.



Journalists face intimidation, criminal charges, and even disappearances, creating a climate of fear that hinders accountability and transparency. The violent insurgency in Cabo Delgado, which claimed thousands of lives and displaced over a million residents between 2017 and 2021, underscores the complex interplay between resource extraction, underdevelopment, and social unrest. Contrary to simplistic media narratives framing the conflict as a clash between the Mozambican state and Islamist militants, the roots of the violence lie in chronic underdevelopment, stark regional inequalities, and widespread disaffection with the ruling FRELIMO government. Despite its natural resource wealth, Cabo Delgado remains one of the poorest regions in Mozambique. Local youth, feeling excluded from the benefits of resource extraction, have become increasingly disillusioned, fuelling tensions and unrest.

PROTECTION OF RIGHTS DEFENDERS

Current mechanisms for protecting rights defenders in Mozambique are often weak and poorly enforced. Activists advocating against harmful extractive practices frequently face threats, harassment, and violence. Strengthening these mechanisms requires international support for local NGOs and the implementation of protective legislation.

The Case of Cateme resettlement in Tete province highlights the challenges communities face resisting resettlement and environmental degradation, underscoring the need for robust legal protections and international advocacy to safeguard the rights and safety of activists and community leaders. Therefore, strengthening the protection of rights defenders in Mozambique is crucial for safeguarding the voices advocating for environmental and social justice, which calls for a multifaceted approach, including the enforcement of robust legal frameworks, enhanced international support for local initiatives, and the promotion of transparency and accountability. Empowering activists and affected communities with the tools, resources, and protections they need will not only address immediate threats but also foster a culture of resilience and equity, ensuring sustainable development and justice.

OPPORTUNITIES AND BARRIERS FOR CIVIL SOCIETY

The political economy of Mozambique, characterised by patrimonialism and corruption, limits the space for civil society to operate effectively. In this challenging context, civil society groups face significant barriers which affect the extent to which they can influence governance reforms and address the social and environmental impacts of the energy sector. In the short term, opportunities for reform are constrained, and civil society must navigate these contradictions and constraints carefully. Moreover, there are limited opportunities to strengthen vertical oversight mechanisms and leverage generational changes within FRELIMO, which could bring a slightly different governance style in the medium-to-long term.

Successive civil society programmes have focused on strengthening legislative and regulatory frameworks in the petroleum sector and building the capacity of institutions to implement these rules. While these efforts have yielded some success, they require significant scaling-up and long-term commitments to achieve meaningful impact. Civil society must also address the structural barriers that perpetuate inequality and exclusion, such as low transparency, corruption, and the prioritisation of foreign investors over local communities.

KEY FINDINGS

Overall, Mozambique's oil and gas sector offers immense potential for economic growth but this is hindered by governance challenges, conflict, and the need for sustainable energy transitions. Strengthening institutions, promoting transparency, and ensuring equitable resource distribution are critical to addressing these issues. The involvement of emerging powers and small-scale actors, supported by organisations like the African Development Bank, could play a pivotal role in shaping the sector's future. The government's economic and regulatory reforms aimed at fostering a favourable business environment, have contributed to a dramatic increase in GDP from approximately US\$3 billion in 1993 to approximately US\$13 billion in 2017. This growth can be attributed to foreign investments and a relatively stable political climate, which has bolstered investor confidence.

Without addressing the root causes of conflict and inequality, Mozambique risks falling victim to the resource curse, undermining its development prospects. Mozambique's heavy focus on gas exports has created a significant disconnect between national development priorities and the everyday challenges local communities face. Despite the country's abundant natural resource endowments, the failure to address the population's energy needs and the insufficient investment in renewables have exacerbated local difficulties, leaving many without access to reliable and affordable energy. While substantial investments and regulatory reforms have positioned Mozambique as a potential leader in the global liquefied natural gas (LNG) market — primarily due to the discoveries in the Rovuma Basin — these developments have been undermined by the actions of the ruling elite, who leveraged the gas sector to consolidate political power and benefit party-affiliated enterprises, despite reforms aimed at enhancing governmental oversight and ensuring the equitable sharing of resources.

The evolving energy landscape in Mozambique reflects both the promise and peril of the oil and gas sector. On one hand, the country's significant natural gas reserves hold immense potential to drive economic growth, create jobs, and attract foreign investment. On the other hand, the nascent state of the oil sector and the precarious nature of LNG projects pose substantial challenges. Ongoing security issues, particularly the insurgency in Cabo Delgado, have disrupted operations and deterred investment. Additionally, rampant corruption within the sector has fuelled rent-seeking behaviour, diverting resources away from job creation and sustainable economic opportunities. These issues highlight the fragility of Mozambique's energy ambitions and the need for a more stable and transparent governance framework.

Mozambique's legal and policy framework for oil and gas is comprehensive, covering critical aspects such as taxation, environmental regulations, and resource ownership. However, including contract stabilisation clauses in agreements with international companies may limit the government's ability to implement adequate environmental and social protections. This raises concerns about the long-term sustainability of resource extraction and its impact on local communities. Furthermore, the concentration of resource wealth in the hands of political elites has perpetuated governance challenges and corruption, with benefits accruing primarily to a select few while the broader population remains mired in poverty, creating conflicts of interest, undermining the effectiveness of regulatory oversight and exacerbating inequalities.



Despite the significant contributions of oil and gas to Mozambique's GDP and foreign investment inflows, the uneven distribution of benefits has deepened regional disparities. This has led to social upheaval, environmental degradation, and inadequate stakeholder consultations, particularly in resource-rich areas. Communities affected by large-scale energy projects often face displacement, loss of livelihoods, and insufficient compensation, further fuelling discontent and marginalization. These challenges underscore the urgent need for a more equitable and community-focused approach to resource management. By prioritizing inclusive development, transparent governance, and sustainable practices, Mozambique can address these disparities and ensure that the benefits of its natural resources are shared more broadly.

CONCLUSION

Whether Mozambique should transition to clean energy is complex and critical for the country's sustainable development. While contributing significantly to economic growth, the petroleum sector has also brought about severe environmental degradation, social upheaval, and economic disparities. These challenges underscore the urgent need for Mozambique to shift toward cleaner energy sources. A transition to renewable energy could mitigate the negative impacts of fossil fuel extraction, promote environmental sustainability, reduce reliance on volatile international oil markets, and ensure a more equitable distribution of economic benefits. However, achieving this transition is challenging and requires a comprehensive, inclusive, and well-coordinated approach.

One of the primary steps toward a successful energy transition is the establishment of a robust legal and regulatory framework. Clear policies that encourage investment in renewable energy projects and effective oversight mechanisms are essential to prevent corruption and mismanagement. Additionally, significant investments in renewable energy infrastructure — such as solar, wind, and hydroelectric projects — are necessary to facilitate the shift away from fossil fuels. Upgrading the electrical grid to support decentralized energy systems will also ensure that renewable energy reaches even the most remote communities.

Equally important is the active participation of local communities in the transition process. Transparent consultation processes, fair compensation mechanisms for those displaced by energy projects, and the creation of accessible job opportunities in the renewable energy sector are vital to preventing disenfranchisement and ensuring that the benefits of clean energy are shared equitably. Furthermore, capacity-building initiatives, including education and training programs, will be essential to equip the local workforce with the skills needed to thrive in a renewable energy-driven economy.

International partnerships will play a pivotal role in supporting Mozambique's energy transition. Collaborating with global organisations and countries experienced in renewable energy technologies can provide the financial backing and technical expertise needed to kickstart and scale up clean energy projects. These partnerships can also help Mozambique navigate the complexities of transitioning to a low-carbon economy while maintaining economic stability.

Environmental safeguards must remain a priority throughout this transition. Implementing stringent environmental regulations will ensure that renewable energy projects do not exacerbate existing ecological challenges. Protecting ecosystems, preserving biodiversity, and promoting sustainable land use practices will be key to achieving long-term environmental sustainability.

Mozambique's energy sector stands at a critical juncture, balancing the economic benefits of oil and gas with the pressing

need for sustainable development. While the transition to clean energy presents significant challenges — such as economic instability, job losses, and the need for substantial infrastructure investments — it also offers a unique opportunity for intra-Africa Trade and regional integration, to address regional disparities, social inequities, and environmental degradation. Strengthening governance, protecting the rights of activists and communities, and fostering inclusive policymaking are essential steps toward achieving a just and sustainable energy transition.

By adopting a multifaceted approach that combines legal reforms, transparent and accountable governance, community engagement, international collaboration, and environmental stewardship, Mozambique can position itself as a leader in sustainable energy transition. This will not only enable the country to meet its climate commitments but also ensure a resilient, equitable, and prosperous future for all its citizens. The path forward is challenging, but with concerted effort and strategic planning, Mozambique can harness the potential of clean energy to drive sustainable development and improve the lives of its people.

RECOMMENDATIONS

Adopting the recommendations outlined below will help Mozambique on its path to effective energy development and natural resource management. By focusing on community needs, strengthening governance, and ensuring equitable distribution of benefits, Mozambique can harness its abundant resources to foster sustainable growth and improve the lives of its citizens.

1. Balanced Approach to Energy Development

Mozambique should prioritise a balanced approach to energy development, focusing on the needs of local communities and integrating renewable energy sources into its energy strategy. This shift is essential for addressing the energy challenges faced by the population, ensuring reliable access, and fostering sustainable growth. Policymakers must engage with local stakeholders to comprehend their energy needs, emphasising renewable energy solutions that are both environmentally friendly and socially beneficial.

2. Separation of Commercial and Regulatory Functions

Establishing a clear separation between commercial and regulatory functions is vital to protecting Mozambican interests and preventing exploitation in the gas sector. This will promote the fair distribution of benefits derived from natural resource extraction. Additionally, efforts should be directed toward transparency in the operations of state-owned enterprises to mitigate corruption and encourage equitable growth.

3. Enhancing Investment Environment and Oversight

Creating a favourable investment climate while ensuring effective government oversight is critical. Policymakers must design regulations that attract legitimate investments and protect public interests, preventing the ruling elite from dominating the gas sector for personal gain. Establishing a robust framework for monitoring investments, coupled with transparent governance practices, can help build trust among investors and the local population.



4. Addressing Security and Corruption Risks

Security challenges and corruption in Mozambique's oil and gas sector pose significant barriers to successful development. To counteract the negative impacts of resource wealth, the government and stakeholders should implement comprehensive strategies to enhance transparency and accountability. This includes enforcing anti-corruption measures, promoting whistleblower protections, and ensuring that revenues are allocated to benefit local communities. Sustainable initiatives that create local jobs and promote economic development must also be prioritised.

5. Engaging Stakeholders in Policy Development

Developing the legal and regulatory framework for oil and gas requires engagement with various stakeholders, including local communities, civil society organisations, and industry representatives. Involving these parties in decision-making ensures that resource extraction considers environmental sustainability and social welfare. Policymakers should thoroughly assess contract stabilisation clauses to protect corporate interests and the government's ability to implement environmental and social protections.

6. Strengthening Regulatory Frameworks

Strong regulatory frameworks are essential for ensuring equitable distribution of oil and gas benefits. The government must enforce stringent environmental standards, promote revenue transparency, and implement fair compensation and resettlement processes for affected communities. Increased regulatory oversight can mitigate the adverse effects of extraction activities, safeguarding the environment and public health.

7. Promoting Civil Society Advocacy

Civil society organisations are vital in advocating for community rights and environmental protections. By promoting greater community participation in decision-making, these organisations can hold governments and companies accountable for their actions. Building coalitions with international NGOs can enhance advocacy efforts, providing additional support and resources to local initiatives. This collaboration will strengthen civil society's influence and ensure that marginalised voices are heard in the resource management discourse.

8. Fostering Inclusive Development Policies

Key development must ensure that the economic benefits of natural resources are extended to a broader population, with specific benefits for host communities of extractive projects. These projects should prioritise inclusive development practices to uplift communities and alleviate poverty. Natural resources extraction shall provide investments in education, healthcare, and local infrastructure which can create long-term benefits and improve Mozambicans' quality of life. This includes building the capacity of local communities through targeted training in financial management and project planning, while also implementing robust anti-corruption measures to ensure transparency and accountability in the decision-making processes related to Sovereign Wealth Fund. Regular forums for dialogue and feedback should be incorporated to foster active community engagement throughout the initiative.

9. Strengthening Legal Frameworks for Resource Management

It is vital to support revisions to existing laws that strengthen the fiscal regime, introduce local content requirements, and enhance environmental and community protection controls. These amendments should incorporate enforcement mechanisms and contribute to more responsible and sustainable resource management, ensuring that Mozambique's natural resources are used to benefit current and future generations.

10. Ensuring Human Rights Protections

Protecting human rights is crucial in the context of energy development. Strengthening due diligence processes for LNG projects will help prevent and address conflicts and potential human rights infringements. Furthermore, enhancing compensation and support for those affected by resettlement efforts is essential, and providing adequate relocation assistance and access to suitable land will demonstrate a commitment to social justice and community well-being.

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