



AFRICAN FORUM AND NETWORK
ON DEBT AND DEVELOPMENT

Exploring the Nexus Between Oil and Gas Investments and Development in Tanzania



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Keywords: Energy transition, Climate Finance, Political Economy, Resource Curse, Enclave



Abbreviations

BCF	Billion Cubic Feet
CCM	Chama Cha Mapinduzi
CHADEMA	Chama Cha Demokrasia na Maendeleo
DRC	Democratic Republic of Congo
FDI	Foreign Direct Investment
FYDP	Five-Year Development Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNI	Gross National Income
GWH	Gigawatt hours,
JHPP	Julius Nyerere Hydropower Plant
LNG	Liquefied Natural Gas
MNCs	Multinational Corporations
MW	Megawatts
PBPA	Petroleum Bulk Procurement Agency
PDN	Production
PPPs	Private Public Partnerships
REA	Rural Electrification Agency
REE	Rare Earth Metals
SADC	Southern Africa Development Countries
SGR	Standard Gauge Railway
TANESCO	Tanzania Electric Supply Company Limited
TAZARA	Tanzania Zambia Railway Authority,
TDFL	Tanganyika Development Finance Corporation
TREEP	Tanzania Rural Electrification Expansion Program
UK	United Kingdom
EU	European Union

1.0 Introduction

This report explores the relationship between oil and gas investments, the debt crisis, and the navigation towards the energy transition in Tanzania. To understand this complex relationship, the report looks into Sub-Saharan Africa's endowment of vast natural and mineral resources and the inadvertent underdevelopment and political instability, leading to increased path dependence and the development of the famous resource curse.¹ We explore the resource curse in Sub-Saharan Africa, proving the complex and toxic relationship between destructive leadership and governance and the national economic development and outcome. This phenomenon depicts how natural and mineral resources can paradoxically hinder economic growth and lead to unfavourable outcomes like corruption, conflict, and inequality. The contemporary arguments for the resource curse using countries like Nigeria, Angola and Equatorial Guinea as examples and the counterarguments that mineral and natural resources do not always lead to similar outcomes using Norway and Chile as examples have led to massive research and development of theoretical constructs.²

However, the enclave nature of the mineral and natural resource industries can be attributed to the minimal linkage development between these lucrative economic sectors and other sectors of the economy.³ This may lead to increased borrowing on the prospect that the country's natural and mineral resources will one day pay the national debt perpetuated by Tanzania's political settlement. It can be argued that the ruling party's untampered political might has led to increased borrowing, inefficient resource management policies, and corruption.⁴ This, coupled with weak institutional frameworks, perpetuates the cycle of underdevelopment in the land of Kilimanjaro. The country's historical gold mining experience is proof of its economic inequities.⁵ The recent discoveries of natural gas have already sparked civil instability in the southern regions of Mtwara and Lindi. They have created unrealistic national and regional economic expectations,



- 1 Ross, M.L., 2015. What have we learned about the resource curse? *Annual review of political science*, 18(1), pp.239-259.
- 2 Ross, M.L., 2018. The politics of the resource curse. *The Oxford handbook of the politics of development*, p.200.
- 3 Phelps, N.A., Atienza, M. and Arias, M., 2015. Encore for the enclave: the changing nature of the industry enclave with illustrations from the mining industry in Chile. *Economic geography*, 91(2), pp.119-146.
- 4 The enclave nature of the extractive industry, particularly in Sub-Saharan Africa, is the isolation of the extractive sector from the host country's economy and society. This may entail limited domestic linkages due to reliance on imports and foreign labour, foreign dominance leading to capital flight and limited technology transfer, significant social and environmental impacts, and inadequate local capacity building that impacts local content development. Hilson, G., Hu, Y., Hilson, A., Owen, J.R., Lèbre, É. and Sauerwein, T., 2024. Rethinking resource enclivity in developing countries: Embedding Global Production Networks in gold mining regions. *Journal of Economic Geography*, 24(1), pp.95-116.
- 5 Emel, J., Huber, M.T. and Makene, M.H., 2011. Extracting sovereignty: Capital, territory, and gold mining in Tanzania. *Political Geography*, 30(2), pp.70-79.



resulting in the government's delay in signing the final agreement. Land displacement in the host community of Likong'o has led to a regional resource conflict.⁶ The study will explain the complexities of Tanzania's resource curse governance in depth. Finally, this paper offers policy recommendations to foster sustainable development, promote economic diversification, and ensure that resource extraction benefits are shared equitably among all citizens.

6 Poncian, J., 2019. Extractive resource ownership and the subnational resource curse: Insights from Tanzania. *The Extractive Industries and Society*, 6(2), pp.332-342.

2.0 The History of Resource Access and Extraction

The historical evolution of natural and mineral resource management in Sub-Saharan Africa reveals distinct periods characterized by varying local integration and development levels. During the Colonial Era (19th-20th centuries), European powers established extractive enclaves, exploiting resources for their benefit while restricting opportunities for local Africans.⁷ In the Post-Independence period (1960s-80s), resource-rich nations adopted state-led development models, often resulting in corruption and limited economic diversification⁸. Structural Adjustment Programs (1980s-1990s) stressed privatization and reduced government intervention, exacerbating inequality and obstructing sustainable development⁹. New challenges and opportunities have emerged in the 21st century. The global demand for critical minerals for the energy transition presents potential benefits and risks for resource-rich countries. However, resource nationalism, conflict, and environmental concerns limit local integration and sustainable development. The need for a just transition, ensuring equitable benefits for host communities, is crucial for overcoming the historical legacy of the extractive industry in Sub-Saharan Africa.

Tanzania has a long history of conflict stemming from exploiting its resources. The 2010 natural gas protests echo the 1900s Majimaji resistance in Southern Tanzania against the Germans due to the plundering of Tanzania's natural resources.¹⁰ This highlighted the enduring consequences of colonial policies prioritizing external interests over local needs. The Nyerere National Park, formerly Selous Game Reserve and the expulsion of the Maasai in Northern Tanzania. Exemplifies the local communities' exclusion from their ancestral lands and limited resource access¹¹. The park's conservation efforts, often driven by international interests, have exacerbated conflicts and marginalized local communities. The plunder of dinosaur fossils from Tendaguru in the early 1900s further illustrates the historical injustices faced by Tanzania in managing mineral and natural resources.¹² These events underscore the enduring legacy of colonialism, where the country continues to grapple with the effects of resource exploitation and marginalization.



7 Opong, N. and Acheampong, K.O., 2022. Africa: oil, colonialism and development. In Handbook on Oil and International Relations (pp. 179-190). Edward Elgar Publishing.

8 Ibid.

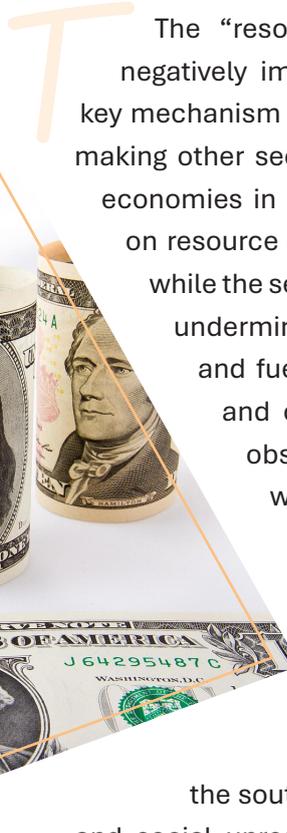
9 Hyden, G. and Karlstrom, B., 1993. Structural adjustment as a policy process: The case of Tanzania. World Development, 21(9), pp.1395-1404.

10 Mihanjo, E.P. and Masebo, O., 2017. Maji Maji War, Ngoni Warlords and Militarism in Southern Tanzania: A Revisionist View of Nationalist History. Journal of African Military History, 1(1-2), pp.41-71.

11 Wijngaarden, V., 2021. Maasai perspectives on modernity: narratives of evolution, nature and culture. Critical African Studies, 13(2), pp.197-215.

12 Heinrich, W.D., Bussert, R. and Aberhan, M., 2011. A blast from the past: the lost world of dinosaurs at Tendaguru, East Africa. Geology Today, 27(3), pp.101-106.

3.0 The Resource Curse in Mineral Resource Management



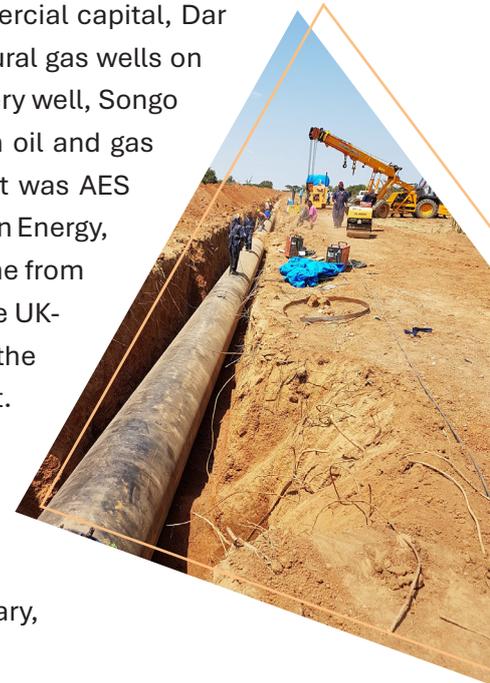
The “resource curse” theory argues that abundant natural resources can negatively impact developing countries, particularly in Sub-Saharan Africa.¹³ One key mechanism is the Dutch Disease, where resource exports strengthen the currency, making other sectors uncompetitive.¹⁴ This hinders economic diversification and traps economies in resource dependence. For instance, in Sub-Saharan Africa, the focus on resource extraction has led to sluggish growth in manufacturing and agriculture while the service sector dominates. Furthermore, the influx of resource revenue can undermine good governance.¹⁵ Reduced reliance on taxes weakens accountability and fuels corruption, leading to “rentier politics” characterized by patronage and clientelism. This has worsened political instability and inequality, as observed in Equatorial Guinea and in developing a party state in Tanzania, where oil and gas wealth have facilitated an authoritarian, single-party regime and extreme income disparity. Furthermore, resource wealth can fuel conflict.¹⁶ The competition for control over valuable resources can attract armed groups and exacerbate tensions. Examples include the gas boom in Mozambique, which coincided with a rise in Islamist insurgency, and the cobalt boom in the DRC, which has fueled conflict and human rights abuses in the eastern provinces. In the southern region of Tanzania, locals led protests that escalated into political and social unrest because the gas discoveries. The unrest was exacerbated by the Government’s policy of building pipelines towards Dar es Salaam’s business capital rather than facilitating host community development.¹⁷

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- 13 Savoia, A. and Sen, K., 2021. The political economy of the resource curse: A development perspective. *Annual Review of Resource Economics*, 13(1), pp.203-223.
 - 14 Gu, X., Alamri, A.M., Ahmad, M., Alsagr, N., Zhong, X. and Wu, T., 2023. Natural resources extraction and green finance: Dutch disease and COP27 targets for OECD countries. *Resources Policy*, 81, p.103404.
 - 15 Ajide, K.B., Ibrahim, R.L., Mohammed, A. and Al-Faryan, M.A.S., 2023. Infectious diseases and health outcomes’ implications of natural resource curse in Africa. *Resources Policy*, 81, p.103394.
 - 16 Brisman, A. and South, N., 2013. Resource wealth, power, crime, and conflict. In *Emerging issues in green criminology: Exploring power, justice and harm* (pp. 57-71). London: Palgrave Macmillan UK.
 - 17 Thobias, M. and Kseniia, M., 2017. Mtwaru gas project conflict: Causes of arising and ways of stabilization (Part 2). *Social Sciences*, 6(3), pp.73-84.

4.1 The Oil and Gas Rush

Tanzania has been discovering natural gas since the 1950s. The first discovery was on Songo Songo Island in 1974, and the second was at Mnazi Bay in 1982, which was later commercialized in 2006. These findings have generated interest and positive opinions about the potential for oil and gas to strengthen the country's economy and improve the social welfare of its people. However, gas has been produced at Songo Songo for over 20 years, and it is fed into the primary grid supplying energy in and around Dar es Salaam.¹⁸ TPDC has conducted substantial exploratory work in the concessions it has awarded over the past 20 years. These efforts have led to significant commercial discoveries, particularly in the onshore and shallow-water areas, by the French-Anglo team of Maurel et Prom and Wentworth in Mnazi Bay (south of Lindi and Mtwara).¹⁹ Although these were not the largest discoveries, they were historically significant. In August 2015, these findings resulted in the first gas from Mnazi Bay being transported through a new pipeline funded by China.

The Songo Songo gas field is located on and offshore Songo Songo Island, approximately 15 km from the Tanzanian mainland and 200 km south of the commercial capital, Dar es Salaam. The project includes two onshore and three offshore natural gas wells on the island, piping the extracted gas to a processing plant. The discovery well, Songo Songo-1, was drilled in 1974 by AGIP, now a subsidiary of the Italian oil and gas multinational Eni SpA. The main sponsor of the \$320 million project was AES Sirocco from the United States, with additional support from PanAfrican Energy, formerly known as Ocelot International. Investment in the project came from various entities, including AES, PanAfrican Energy, Tanesco, TPDC, the UK-based CDC Group plc, TDFL, the European Investment Bank, and the World Bank, with support facilitated through the Tanzanian Government. The gas processing plant and pipelines were constructed and are owned by Songas Ltd, a local joint venture company formed by CDC Globeleq (part of the CDC Group), Tanesco, TPDC, and TDFL. CDC Globeleq holds the controlling interest in the project. PanAfrican Energy Tanzania Ltd, a local Orca Exploration Group Inc. subsidiary, operates the gas plant and wells on its behalf.²⁰



18 Bishoge, O.K., Zhang, L., Mushi, W.G., Suntu, S.L. and Gregory, G., 2018. An overview of the natural gas sector in Tanzania-Achievements and challenges. *Journal of Applied and Advanced Research*, 3(4), pp.108-118.

19 Ibid.

20 Bishoge, O.K., Zhang, L., Mushi, W.G., Suntu, S.L. and Gregory, G., 2018. An overview of the natural gas sector in Tanzania-Achievements and challenges. *Journal of Applied and Advanced Research*, 3(4), pp.108-118.

The pipeline network was completed in May 2004. The first gas was delivered to Dar es Salaam in July 2004, marking the start of commercial operations for the project. This pipeline network transports natural gas to Dar es Salaam, which serves as the primary fuel for turbine generators at the Songas Ubungu power plant. The plant generates approximately 190 MW of electricity, equating to 45% of the country's overall capacity.²¹ A portion of the gas also supplies a local cement plant, Wazo Hill, along with several other industries and power plants in Dar es Salaam. Other consortiums, led by private international firms, have found considerable gas resources more than 80 km offshore from Tanzania's mainland, especially in 2010. Off the southeast coast of Tanzania in the Indian Ocean are three offshore exploration blocks: Blocks 1, 3, and 4, where Ophir Energy Plc. Holds exploratory rights. Statoil (now Equinor) made significant discoveries in Block 2, which contains a sizable share of Tanzania's gas reserves.²² Equinor currently operates this block. Petrobras has given up on blocks 5, 6, and 8.²³ In 2019, they gave up their exploration licenses. Shell and Ophir Energy became the new operators, and Ophir Energy is now part of Capricorn Energy. However, no significant findings have been reported in these blocks yet. Shell explored these blocks, including 9, 10, 11, and 12, some of which are in Zanzibari waters.²⁴ However, in 2016, they also gave up their licenses. Tanzania's natural gas reserves have reportedly expanded significantly since 2012. As of March 2016, the Ministry of Energy and Minerals' most recent official assessment indicates the amount to be 57.25 tcf.

4.2 Tanzania LNG Development

Before establishing its LNG industry, Tanzania's economy mainly depended on agriculture.²⁵ Most of its GDP was derived from sectors such as food processing, textiles, brewing, and tourism, which made a notable contribution. However, the country faced challenges, including low per capita income and limited industrial diversification.²⁶ Tanzania is a developing economy heavily reliant on primary commodity exports with minimal value addition. Hence, its gas industry lacks the necessary infrastructure for extracting, processing, and exporting gas to its target markets. The construction of an LNG facility is essential to enabling gas exports. The LNG project in Tanzania is one of Africa's most significant capital projects, estimated to attract \$42 billion worth of investment.²⁷ Tanzania is projected to reach a yearly GDP of \$75 billion, indicating considerable investment potential in LNG.²⁸ Economists at the

21 Bishoge, O.K., Zhang, L., Mushi, W.G., Suntu, S.L. and Gregory, G., 2018. An overview of the natural gas sector in Tanzania-Achievements and challenges. *Journal of Applied and Advanced Research*, 3(4), pp.108-118.

22 Hundsbæk Pedersen, R. and Bofin, P., 2019. Muted market signals: politics, petroleum investments and regulatory developments in Tanzania. *Journal of Eastern African Studies*, 13(3), pp.409-427.

23 Ibid.

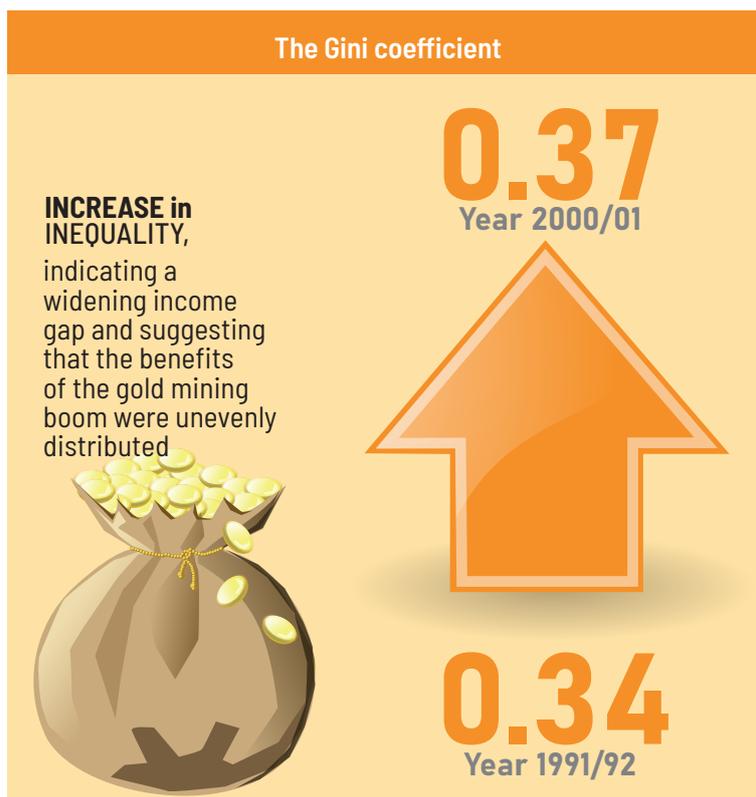
24 The Citizen. Tanzania ramps up natural gas production. *Gadiosa Lamtey*. Thursday, August 22, 2024

25 Barlow, A., 2024. Temporal frictions: competing futures of LNG in Tanzania. *Journal of Eastern African Studies*, 18(3), pp.471-491.

26 Ibid.

27 Barlow, A., 2024. Temporal frictions: competing futures of LNG in Tanzania. *Journal of Eastern African Studies*, 18(3), pp.471-491.

28 Ibid.



Tanzanian Central Bank anticipate the project will increase Tanzania’s annual GDP by two percentage points during its construction.²⁹ The involvement of significant international oil corporations (IOCs) like Equinor, Shell, and ExxonMobil, alongside the Tanzania Petroleum Development Corporation (TPDC), indicates a collaborative effort to harness Tanzania’s natural gas resources. This partnership is essential for pooling financial resources

and leveraging these IOCs’ technical expertise and market access.

However, the delays in the LNG project negotiations have been attributed to Tanzania’s nationalism regarding natural resources. While the government’s desire for greater control over its resources is understandable, it must also consider the implications of prolonged negotiations on investor confidence and project timelines. The government’s recent efforts to finalize contracts and push towards a final investment decision signal a recognition of these challenges. Nevertheless, the interplay between national interests and the operational realities of international partnerships remains a critical factor in developing the LNG infrastructure. Addressing these dynamics effectively will ensure that Tanzania fully capitalizes on its gas resources and realizes the projected economic benefits.

4.3 A Sub-National Curse Legacy from the Mining to Gas Industry

Despite the mining boom of the 1990s, high poverty rates persisted, remaining at 39% in 1991/92 and only slightly dropping to 36% in 2000/01.³⁰ The Gini coefficient, a measure of income inequality, increased from 0.34 in 1991/92 to 0.37 in 2000/01, indicating a widening income gap and suggesting that the benefits of the gold mining boom were

29 Adam, C., 2015. 24. Tanzania: Turning Natural Gas into Sustained Growth. AFRICA at a Fork in the Road, p.415.

30 Kahyarara, G., 2024. Dynamics and Trends of Mining in Tanzania: A Cointegration Approach, 1966-2023. African Journal of Economic Review, 12(2), pp.137-160.

unevenly distributed.³¹ Regions rich in gold, like Shinyanga, Geita, and Mara, experienced slow economic growth. They showed a persistent enclave created by foreign ownership, rentier politics, and structural transformation that marginalized local communities and led to a subnational resource curse.³² The FDI European MNCs were five times more significant than the gold resurgence era. This has led the country's flagship LNG project to process gas from fields operated by Equinor, Shell, and ExxonMobil, producing 10 million metric tons annually.³³ However, the final investment decision³³ is awaiting the signing. Shell's Blocks 1 and 4 have an estimated 16 trillion cubic feet (tcf) of gas in place, while Equinor's Block 2 has yielded nine discoveries with more than 20 tcf of estimated reserves. Tanzania and Uganda have signed an agreement to undertake a feasibility study for constructing a pipeline linking Tanzania's gas fields to Uganda.

Tanzania's advantageous location on the Indian Ocean and its renowned Kigamboni LPG Terminal, which imports LPG from the Middle East and distributes it by truck to the rest of the region, have made it a regional leader in LPG distribution.³⁴ Taifa Gas of Tanzania is building a \$100 million LPG facility in northern Zambia in partnership with Delta Marimba of Zambia.³⁵ In 2023, Tanzania opened its first CNG filling station and conversion centre in Dar es Salaam. According to the deputy minister of energy, the government plans to promote 24 oil and natural gas exploration blocks in March 2025 as part of the East African Oil and Gas Conference and Exhibition, which will take place in the nation.³⁶ This matter can be addressed by referencing the extensive literature on the resource curse in its economic and political manifestations. Concerns about constructing an LNG facility in southern Tanzania arise from unstable prices caused by the COVID-19 pandemic, global recession, and the conflict between Russia and Ukraine.³⁷ This construction has affected the host communities in the village of Liko'ngo, forcing them to abandon their traditional cashew and coconut farming.³⁸ This has led to significant income inequality and a need for more development within the local community. Furthermore, a substantial proportion of foreign ownership exists, with increasing land prices and persistent rent-seeking tendencies.

The similarities between the oil and gas and mining industries lead to a sub-national resource curse. For example, mining and oil and gas industries have limited trickle-down

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- 31 Go, D., Nikitin, D., Wang, X. and Zou, H.F., 2007. Poverty and Inequality in Sub-Saharan Africa: Literature Survey and Empirical Assessment. *Annals of Economics & Finance*, 8(2).
 - 32 Poncian, J., 2019. Extractive resource ownership and the subnational resource curse: Insights from Tanzania. *The Extractive Industries and Society*, 6(2), pp.332-342.
 - 33 Foss, M.M., Mikulska, A. and Gülen, G. eds., 2021. *Monetizing Natural Gas in the New "New Deal" Economy*. Palgrave Macmillan.
 - 34 Aamaas, B., Grimsby, L.K., Ulsrud, K., Standal, K., Vindegg, M., Chowdhury, S., Ruhinduka, R., Perros, T., Puzzolo, E. and Pope, D., 2024. Required knowledge for clean cooking transition: The case of Tanzania. *Environmental Science & Policy*, 160, p.103834.
 - 35 Ibid.
 - 36 The Citizen. Tanzania ramps up natural gas production. Gadiosa Lamtey. Thursday, August 22, 2024
 - 37 Kachur, D., 2021. Russia's Resurgent Interest in Africa: The Cases of Zambia and Tanzania. South African Institute of International Affairs.
 - 38 HakiRasilimali. 2024. Navigating Tanzania's LNG landscape: Towards Responsible Energy Transition and Sustainable Alternatives. <https://www.hakirasilimali.or.tz/navigating-tanzanias-lng-landscape-towards-responsible-energy-transition-and-sustainable-alternatives/>

effects, with the wealth concentrated in the hands of a few, creating an enclave for the host community and leading to a sub-national resource curse. Furthermore, the gold-rich regions of Shinyanga and Geita have experienced massive rent-seeking, with the local population leaving other sectors of the economy heading to artisanal mining that lacks formalization, losing out rents and integrating into the broader economy. Though the gas industry does not have artisanal-scale stakeholders, in Mtwara and Lindi, the youth have left the agro-economy to sectors that support the oil and gas industry.³⁹ Like the mining activities in the northern part of the country, the gas industry in southern Tanzania is dependent on and vulnerable to a single resource. This heavy reliance on a single resource poses significant risks. For instance, in the south region, the \$2-\$3 million land re-settlement compensation made by the host community village of Likong'o has made locals drop their cultivation tools used to grow cashew crops due to rent-seeking.⁴⁰ This has led to the local economy deteriorating, as the workforce has left other factors of production and concentrated on the LNG project, which has yet to materialize.

39 Nilsson, E., 2023. The instrumentalization of CSR by rent-seeking governments: lessons from Tanzania. *Business & Society*, 62(6), pp.1173-1200.

40 *Supra* n.72

5.0 Tanzania's Political Economy

Since independence in 1961, Tanzania has been dominated by the Chama Cha Mapinduzi (CCM) party. Under Julius Nyerere, a one-party state with a strong socialist inclination emerged. Economic liberalisation began in the 1980s but encountered resistance. Multi-party elections were introduced in 1995, yet CCM retained considerable power. Presidents Mkapa and Kikwete pursued market-oriented reforms, contending with internal opposition and corruption scandals. Though Kikwete's regime pursued market reforms, it also suffered from massive resource management scandals. For instance, the Richmond scandal 2006 aimed to address power shortages by supplying over 100 MW. A US-based company, Richmond LLC, won the tender.⁴¹ The irregularities resulted in the country losing Sh172 billion, leading to the dismissal of Tanzania's then-Prime Minister Edward Lowassa.⁴² Furthermore, Tanzania's prominent Minister of Minerals collaborated with Buzwagi Gold to develop the new Buzwagi Gold Mine. This agreement was fraught with significant irregularities and was finalised despite parliament's calls to review outdated mining contracts.⁴³ Corruption scandals and embezzlement of public funds within the extractive industry, including Kiwira Gold Mines, the Richmond scandal, and Barrick Gold marked Kikwete's regime.

The 2015 elections saw the rise of John Magufuli, who consolidated power through authoritarian measures. He pursued resource nationalism and state-led development, thereby alienating Western donors. Following his death in 2021, Samia Suluhu Hassan ascended to the presidency. She initiated some political reforms, yet factionalism within the CCM and the lingering influence of Magufuli's policies continue to pose challenges. For instance, the Magufuli Acacia saga was a significant confrontation between the Tanzanian government and Acacia Mining, a Canadian gold mining company.⁴⁴ The Tanzanian government, led by President John Magufuli, accused Acacia of massive tax evasion and under-declaring gold exports. This led to a colossal \$190 billion tax bill on the company, triggering several events, including export bans, contract renegotiations, and legal battles.⁴⁵ The dispute exemplified Magufuli's policy of "resource nationalism," which prioritised government control over the country's mineral wealth. While

41 Lukiko, L.V., 2024. Fighting Corruption in Tanzania's Energy Sector: Lessons from the Richmond and IPTL/Escrow Scandals. JACL, 8, p.12.

42 The Citizen. How corruption rocked Kikwete's govt in the past decade. Wednesday, June 24, 2015. <https://www.thecitizen.co.tz/tanzania/news/national/how-corruption-rocked-kikwete-s-govt-in-the-past-decade-2527542>

43 Masabo, C.J., 2014. Corruption and fraudulent culture: The case of Tanzania. Corruption in Africa: A threat to justice and sustainable peace. Nduku, E. and Tenamwenye, J.(Eds.), Globethics. net Focus, (14), pp.145-68.

44 Jacob, T. and Pedersen, R.H., 2018. New resource nationalism? Continuity and change in Tanzania's extractive industries. The Extractive Industries and Society, 5(2), pp.287-292.

45 Ibid.

intended to increase government revenue, this approach raised concerns among foreign investors regarding the investment climate in Tanzania and the potential for government interference.⁴⁶ The saga ultimately resulted in a settlement, with Acacia agreeing to pay a fine and ceding a significant stake in its Tanzanian operations to the Tanzanian government.

Tanzania's political economy reflects a complex evolution from its socialist roots to a more market-oriented approach, creating a hybrid system that incorporates elements of both ideologies. For decades, Tanzania operated under a socialist framework established by Julius Nyerere, who emphasised state control over the economy and nationalised many enterprises. This approach aimed to promote equitable wealth distribution but ultimately resulted in economic stagnation and developmental challenges. In the late 1980s, Tanzania gradually transitioned towards capitalism, influenced by external pressures from international financial institutions and the need for monetary reform. The structural adjustments initiated under President Ali Hassan Mwinyi marked a significant shift, allowing for greater private sector involvement and foreign direct investment (FDI) despite resistance from traditionalist factions within the ruling Chama Cha Mapinduzi (CCM) party.

Today, Tanzania embodies a hybrid model where socialism and capitalism coexist. The market-friendly policies of subsequent leaders, such as Benjamin Mkapa and Jakaya Kikwete, facilitated increased private sector participation and strengthened relationships with foreign investors. However, the CCM has maintained significant control over key sectors, and the recent leadership under John Magufuli sought to reinstate some socialist principles through resource nationalism and state-led development initiatives.⁴⁷ This dual approach has fostered economic growth, primarily through infrastructure projects financed by foreign loans, such as those from the Exim Bank of China for the Standard Gauge Railway (SGR) project, aiming to enhance regional connectivity and economic development. Yet, it has also led to increased political factionalism and ongoing debates about the balance between state control and market dynamics. As Tanzania navigates its path forward, the challenge will be to sustain economic growth while addressing the complexities of governance and ensuring that development benefits reach all segments of society.

46 Mvile, B.N. and Bishoge, O.K., 2024. Mining industry's potential for community development, challenges, and way forward in the East Africa community. A review. *Local Development & Society*, pp.1-24.

47 Jacob, T., 2017. Competing energy narratives in Tanzania: towards the political economy of coal. *African Affairs*, 116(463), pp.341-353.

6.0 Tanzania's Debt Analysis

As of March 2024, the central government debt stock stood at TZS 91,708.33 billion (USD 35,688.90 million), an increase of 19.09 percent compared to TZS 77,010.45 billion recorded in March 2023. Of the central government debt, domestic debt accounts for TZS 30,753.79 billion, equivalent to 33.53 per cent, and external debt accounts for TZS 60,954.55 billion, equivalent to 66.47 per cent.⁴⁸ Despite global economic challenges, the World Bank projected robust GDP growth rates of 5.3% and 6.1% for 2023 and 2024, respectively.⁴⁹ However, a concerning trend has emerged: a sharp increase in the country's debt-to-GDP ratio. While still relatively low compared to the region at 41%, this ratio has surged from 28% to 40% in just four years, constituting about 35% of annual GDP.⁵⁰ This rapid debt accumulation has led to a downgrade in Tanzania's debt distress risk, signaling a potential threat to the sustainable development of its resource-rich economy.



Government investments in strategic infrastructure projects primarily fuel Tanzania's burgeoning national debt. These include vital developments such as roads, railways, airports, and water and power supply system improvements. While essential for long-term economic growth, this increased spending has resulted in a mounting debt burden, posing a potential threat to economic stability.⁵¹ Furthermore, the government has relied on interest-bearing and concessional loans to finance these projects. This has increased debt servicing costs and repayment obligations, further exacerbating the debt burden. Tanzania has not explicitly declared the use of resource-based loans. Still, the characteristics, features, and stakeholders of these financial instruments are synonymous with those of the Angolan resource-backed loan models. Tanzania's Standard Gauge Railway (SGR) project, a key infrastructure initiative, aims to modernize transportation and boost economic growth. This ambitious \$10 billion project, partially funded by Exim Bank of China, involves multiple international lenders and is being constructed by Yapi Merkezi.⁵² The SGR envisioned connecting Tanzania to landlocked neighbors, which is crucial for regional trade. Exim Bank China is also financing other key infrastructure projects, including a natural gas pipeline and the expansion of the Dar es Salaam Container Terminal.

48 The United Republic of Tanzania. Ministry of Finance. March 2024. Third Quarter Public Debt Report. https://www.mof.go.tz/uploads/documents/en-1721894883_THIRD%20QUATER%20PUBLIC%20DEBT%20REPORT.pdf

49 Taylor, R.S. and Lokina, R., 2024. The relationship between public debt and economic growth in Tanzania. *The Review of Black Political Economy*, p.00346446241275134.

50 Ibid.

51 Mulaku, L.N. and Sabala, K.S., 2024. Infrastructural Development and Neo-Colonialism in Africa: The Case of the Standard Gauge Railway in Kenya. *The African Review*, 1(aop), pp.1-20.

52 Raza, A. and Khan, A.B., 2024. Role of China in Improving the Regional Connectivity and Economic Development in African Union through Program for Infrastructure Development in Africa-Priority Action Plan 1 (PIDA-PAP 1)(2012-2020). Available at SSRN 4958920.

6.1 Debt Linkage to the Mining Sector

This report will use the Mchuchuma Coal and Liganga Iron Ore case study to illustrate the linkage between national debt and the mining sector. The Mchuchuma Coal and Liganga Iron Ore project is a significant infrastructure and mining initiative in Tanzania, supported by a \$3 billion Chinese loan.⁵³ Although the Mchuchuma and Liganga projects can potentially transform Tanzania's economy, their delays and challenges have raised concerns regarding their impact on the country's national debt and overall economic stability. The project led to an increased debt-to-GDP ratio, pushing the country over the edge to the threshold of debt distress. Thus, the government will struggle to service the debt if the Mchuchuma Coal and Liganga Iron Ore do not take off and generate the much-anticipated revenues.

The debt facility is linked to the extraction of coal and iron ore. Consequently, repayment is tied to the project's success. It should be noted that delays in project commencement may delay revenue generation. Tanzania's ability to meet debt obligations may be under strain. Delays in constructing the necessary infrastructure (e.g., railways and power plants) might impede the project's profitability, making it more challenging to repay the loan.

53 Jacob, T., 2017. Competing energy narratives in Tanzania: towards the political economy of coal. *African Affairs*, 116(463), pp.341-353.

Tanzania has many untapped energy resources, including natural gas, water, coal, geothermal, biomass, wind, solar, and uranium. As of December 31, 2023, the country has an installed electricity capacity of 1,938.35 MW.⁵⁴ Tanzania's electricity sector boasts a installed capacity of 1,938.35 MW, comprising 1,899.05 MW from grid-connected sources and 39.30 MW from off-grid systems.⁵⁵ The country experienced a peak electricity demand of 1,482.80 MW in August 2023, with energy demand demonstrating a robust annual growth rate between 10 and 15 percent.

7.1 Table Showing Renewable Energy Potential

ENERGY SOURCE	COUNTRY DETAILS
Solar	Potential: Average 2,800-3,500 hours of annual sunlight. Solar energy varies from 4 to 7 kWh per day. Utilised off-grid in rural areas. TREEP promotes solar home systems and mini-grids. Capacity: potential to generate over 200,000 MW of solar energy.
Wind	Potential: Ranging from 6 to 10 m/s in regions such as Dodoma, Singida, and Makambako. Currently utilised in the Singida Wind Power Project (100 MW). An estimated wind energy potential exceeding 5,000 MW.
Hydropower	Potential: Massive water reserves such as the Rufiji, Pangani, and Ruvuma rivers contribute to at least 35% of Tanzania's electricity generation. The Kidatu Dam (204 MW), Kihansi Dam (180 MW), and JHPP Dam (2,115 MW) have an expected annual power generation of 5,920 GWh.
Geothermal	Potential resources exist in regions such as Mbeya and Ngozi, which are currently untapped and have an estimated capacity of 650MW.
Biomass	Potential resources from agricultural waste and forest residue account for over 80% of energy consumption in rural areas. They can generate more than 500MW.

Source: Author's development from Ministry of Energy

Tanzania relies heavily on oil for transportation and gas in its national grid. Southern Tanzania's Songo Songo gas fields account for over 60% of electricity generation. In contrast, oil is primarily imported and used for transportation. Gas serves as the primary

54 Biririza, E.G.M., 2024. Energy Transition Agenda in Tanzania Within the Auspice of Sub-Saharan Africa: A Review of the Power Sector. *International Journal of Economy, Energy and Environment*, 9(3), pp.59-76.

55 Ibid.

energy source.⁵⁶ The main natural gas fields, Songo Songo and Mnazi Bay, are offshore. Together, they provide an estimated natural gas reserve of around 57 trillion cubic feet (tcf) and produce a total annual output of approximately 110 billion cubic feet (bcf).⁵⁷ Tanzania's top natural gas producers include Orca Energy Group, Etablissements Maurel & Prom, and Wentworth Resources. In 2023, Orca Energy Group emerged as the largest producer of natural gas, with its output rising by 5% compared to 2022. Etablissements Maurel & Prom ranked as the second-largest producer, with production increasing by 19%, and Wentworth Resources followed in third place with a 19% rise from the previous year.⁵⁸

7.2 Table Displaying the Largest Gas Producing Fields in Tanzania (2023)

Field Name	Location	Start Year	Operator	Participants	Natural gas pdn in 2023 (mmcf/d)
Mnazi Bay Complex	Mtwara	2006	M&P Exploration and Production Tanzania	Tanzania Petroleum Development; Establishments Maurel & Prom	107
Songo Songo	Indian Ocean	2004	PanAfrican Energy Tanzania	Orca Energy Group	126

Source: Authors development from GlobalData Oil & Gas Intelligence Center. <https://www.offshore-technology.com/data-insights/tanzania-natural-gas-production/?cf-view&cf-closed>

56 Okika, M.C., Musonda, I., Monko, R.J. and Phoya, S.A., 2025. The road map for sustainable development using solar energy electricity generation in Tanzania. *Energy Strategy Reviews*, 57, p.101630.

57 Offshore Technology. July, 2024. Tanzania natural gas production: data and insights. <https://www.offshore-technology.com/data-insights/tanzania-natural-gas-production/?cf-view&cf-closed>

58 Ibid.

7.3 Table Showing the Largest Natural Gas Fields Under Development in Tanzania (2024 – 2028)

Field Name	Location	Operator	Participants	Status	Start Year	Natural Gas pdn
Zafarani Complex	Indian Ocean	Statoil Tanzania	Exxon Mobil; Equinor	Announced	2029	125,000
Block 1	Indian Ocean	Shell Tanzania	PT Medco Daya Abadi Lestari; Shell; Pavilion Energy	Announced	2029	97,555
Block 4	Indian Ocean	Shell Tanzania	PT Medco Daya Abadi Lestari; Shell; Pavilion Energy	Announced	2029	48,694
Ntorya	Mtwara	ARA Petroleum Tanzania	ARA Petroleum; Aminex	Announced	2025	7,573

Source: Authors development from GlobalData Oil & Gas Intelligence Center. <https://www.offshore-technology.com/data-insights/tanzania-natural-gas-production/?cf-view&cf-closed>

Tanzania holds significant potential in natural gas development as a bridging fuel to facilitate the energy transition. The country navigates the shift from fossil fuels to renewable energy sources by attracting FDI and developing the LNG field in Southern Tanzania, Mtwara. Additionally, hydropower has consistently contributed to Tanzania’s energy mix thanks to its abundant water resources. It contributes to Tanzania’s electricity generation, accounting for approximately 30% of the power mix, second only to natural gas. For example, the 87.5 MW Kakono hydroelectric power station will supply over four million people with low-cost energy.⁵⁹ The Kakono project in the country’s northern region will save 214,000 tonnes of CO₂ annually.⁶⁰ The carbon emissions trade-off is a global priority to deal with the ramifications of climate change. However, Tanzania’s solar potential is ideal for photovoltaic (PV) technologies. The windy regions and volcanic activity offer unique opportunities for geothermal energy development. Nevertheless, the Tanzanian government has prioritized projects with interest and some degree of control, such as hydroelectric, geothermal, coal, and natural gas projects, as well as petroleum importation. The Bulk Procurement Act

59 Nasi Hako. June, 2024. Two renewable energy projects setting Tanzania up for its transition. <https://www.esi-africa.com/renewable-energy/two-renewable-energy-projects-setting-tanzania-up-for-its-transition/>

60 Ibid.



created the Petroleum Bulk Procurement Agency, a centralized agency that procures all the imported petroleum, increasing government control of energy generation in Tanzania.

The electricity infrastructure is divided between the main grid and off-grid systems. TANESCO mainly serves urban and peri-urban areas, while REA serves rural regions that often depend on off-grid solutions.⁶¹ Despite the majority of Tanzania's population being in rural areas and practising subsistence agriculture, as of 2023, only 40% of the population has access to electricity. However, electricity is an electoral currency in Tanzania. CCM has played a crucial role in ensuring electricity supply goes through the main grid controlled by TANESCO, a state-owned entity. The party's resource nationalistic ideology has led to the proliferation of state-owned energy solutions that have developed the national energy strategy, further marginalizing private sector-led initiatives, particularly in solar and wind energy, where foreign investments dominate.

61 Wen, C., Lovett, J.C., Kwayu, E.J. and Msigwa, C., 2023. Off-grid households' preferences for electricity services: policy implications for mini-grid deployment in rural Tanzania. *Energy Policy*, 172, p.113304.

Tanzania's Critical Minerals Facilitating the Energy Transition

8

Several nations have invested significantly in Tanzania's critical mineral sector, motivated by the rising global demand for resources vital to renewable energy technologies and numerous industries. Australia, leveraging its mining expertise, has invested in uranium through Lotus Resources and graphite with BlackRock Mining.⁶² China, a key player in the critical minerals supply chain, has invested in coal, iron ore, and essential minerals such as nickel and cobalt through the Sichuan Hongda Group and is also active in graphite.⁶³ The United Kingdom is advancing its search for critical minerals required for its renewable energy and electric vehicle sectors through investments in critical mineral exploration via Edenville Energy. South Africa is engaged in graphite and REE projects due to its proximity and mining capabilities. India has invested in graphite and gemstones and is exploring REEs in response to its growing demand for critical minerals.⁶⁴ Japan, striving to secure a consistent supply of critical minerals for its high-tech industries, has expressed interest in graphite and REEs. Meanwhile, South Korea, with its strong battery manufacturing sector, focuses on graphite exploration and development.⁶⁵ The United Arab Emirates, pursuing economic diversification and renewable energy investments, has expressed interest in graphite and REEs. Russia concentrates on nuclear energy through a state-owned subsidiary, Mantra Tanzania. The company is exploring the Mkuju River site in Southern Tanzania for uranium with an estimated reserves of 182.1 million tonnes of ore grading 0.025% of uranium.⁶⁶ Countries in the European Union, particularly Germany and France, have shown interest in Tanzania's graphite and REE sectors, motivated by the EU's Green Deal and renewable energy transition goals.

Additionally, Tanzania has established itself as a global leader in critical minerals, positioned 3rd in Africa and 6th worldwide. Through its commitment to sustainable mining and the execution of its Vision 2030 strategy, the nation aims to expand mineral exploration

62 Bernard L. 2024. Australian investment in Tanzania's mining sector soars. <https://dailynews.co.tz/australian-investment-in-tanzanias-mining-sector-soars/>

63 Wang, X., Yu, D. and Yuan, C., 2021. Complementary development between China and Sub-Saharan Africa: examining China's mining investment strategies in Africa. *Sustainability*, 13(21), p.11678.

64 Janardhan, S. and Bhattacharya, A., 2024. Critical Allies and Core Geopolitics in Minerals Trade: Devising a Strategy for India. *Global Trade and Customs Journal*, 19(3).

65 Hendrix, C.S., 2024. East Africa's potential role in US graphite supply chains. *Peterson Institute for International Economics Policy Brief*, pp.24-5.

66 Postar, S., *Intimate Encounters with Uranium at an Anticipated Uranium Mine in Tanzania*. *Extraction/Exclusion*, p.159.

coverage to 50% by 2030, fostering investments and enhancing regional collaboration.⁶⁷ The country is poised to play a significant role in the global energy transition, possessing substantial reserves of critical minerals and rare earth elements. Its resources include gold, copper, nickel, cobalt, graphite (the fifth largest deposit globally), uranium, and 24 rare earth elements. Key projects like the Kabanga Nickel Project are expected to be major suppliers. Lithium and cobalt are crucial for batteries in Kigoma and Mwanza. Tanzania also holds the world's second-largest helium deposit. This burgeoning sector is projected to boost national GDP and drive a domestic-led energy transition.

8.1 Geopolitical Ramifications of Critical Minerals

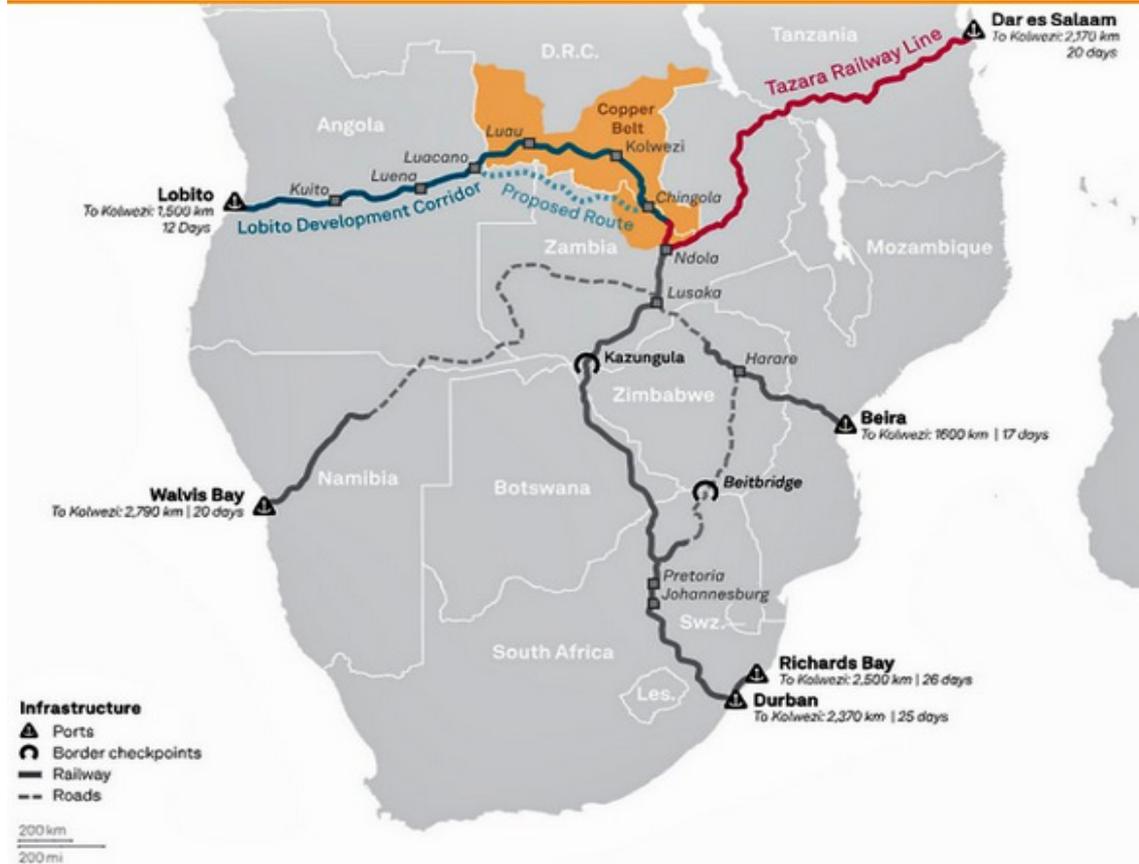
Critical minerals also have geopolitical ramifications in Tanzania because of its geographic location. China invests over \$1 billion in the Tanzania-Zambia Railway (Tazara), a key corridor connecting Tanzania's main port of Dar es Salaam with Zambia's Copperbelt. This 1,860-kilometer railway restoration is part of the Belt and Road Initiative and is seen as an effort to strengthen China-African cooperation.⁶⁸ In response, the US is focusing on the Lobito corridor, a 1,300-kilometer railway line running from the port of Lobito in Angola to the town of Luau on the border with the Democratic Republic of the Congo and extending further into the DRC to the mining town of Kolwezi.⁶⁹

67 Tanzaniainvest. 2024. <https://www.tanzaniainvest.com/mining/critical-minerals-global-ranking-2030-exploration-target>

68 Otiso, K.M. and Carmody, P., 2024. Powering African transport or transporting Chinese power? The spatial political economy of Chinese railways in Africa. In *Africa's Railway Renaissance* (pp. 49-67). Routledge.

69 Voice of America. August 2024. Mohamed Yusuf. US set to extend African railway project through Tanzania. <https://www.voanews.com/a/us-set-to-extend-african-railway-project-through-tanzania-/7764561.html>

8.2 Map Illustrating the Tazara and Lobito Railway in the SADC Region



Source: S&P Global Insights

This move is seen as a reaction to China’s involvement in Tazara. Additionally, it has been announced that Tanzania will join the Lobito corridor project, indicating increased Western interests led by the US and EU. The project aims to connect the Copperbelt region with the Atlantic and Indian Oceans via Tanzania.

The IMF estimates that for Tanzania to mitigate the impacts of climate change, it will cost the country at least 1 to 2 per cent of its GDP per year until 2030.⁷⁰ These figures translate to a significant financial burden that leads to increased borrowing from international financial institutions and organizations. Climate change impacts have largely impacted the agricultural sector, which employs over 70% of the population. The GEF, GCF, and the Adaptation Fund are significant stakeholders in Tanzania's climate finance architecture. For instance, Tanzania has received over \$1 billion from the GEF since 1991 for climate-related projects.⁷¹ The government has attracted funding from GCF and GEF in water conservation and a geothermal project worth over \$300 million.

In Tanzania, financing for climate actions comes from its national budget; however, there is no dedicated line item specifically for climate change. Instead, expenditures related to climate, including those for agriculture, the environment, and infrastructure, are incorporated into various sector's budgets. For example, in the 2021/22 financial year, the government allocated \$18,979,603 for irrigation projects to mitigate the impacts of drought and \$284,379,032 for road construction and maintenance to enhance resilience against climate-induced disasters. However, these allocations are often insufficient, leading to a significant financing gap in the country. During the Second Five-Year Development Plan (FYDP II), Tanzania mobilised only 3.6% of the targeted climate finance, emphasising the need for more robust domestic financing mechanisms.⁷²

To address this gap, Tanzania is exploring various fiscal instruments, including taxes, levies, and subsidies, to mobilize domestic resources for climate action. For instance, taxes on fuel, motor vehicles, and plastic bags generate substantial revenue, which could be partially allocated to climate-related projects. Additionally, the government has introduced feed-in tariffs to promote renewable energy, such as solar power, by exempting solar products from VAT. Other potential financing mechanisms include carbon markets, where Tanzania has implemented projects like the Makame and Yaeda-Eyasi forest conservation initiatives. The projects have avoided producing 857,284 tons of CO₂, generating over \$2 million from carbon credits.⁷³

70 Jensen, L., 2024. The economic and fiscal transition costs of global climate mitigation in fossil fuel export dependent economies. *Resources Policy*, 96, p.105234.

71 Khatibu, F.H.A., & Lokina, R.B. (2023). A Review of Tanzania's Fiscal Regime for Climate Action. REPOA Research Report 2023/03. Dar es Salaam: REPOA.

72 Ibid.

73 Carbontanzania. (2022). Protecting Forests for Communities, Wildlife, and Climate: Impact Report 2021. Available at: <https://www.carbontanzania.com/wp-content/uploads/2022/05/impact-report-2021-web.pdf>

10.0 The Feminist Perspective

Tanzania's energy transition is characterised by conflicting assessments of its impact, often resulting in gender-blind policies that exacerbate existing inequalities. While women are disproportionately affected by energy poverty and climate change, enduring the consequences of fuelwood collection, food insecurity, and limited economic opportunities, policies frequently fail to address these realities.⁷⁴ Although only 8.1% of Tanzanian households were projected to utilise clean energy sources by 2020, and women's traditional energy roles will affect their health and productivity, the government has implemented several initiatives to promote clean energy and gender mainstreaming.⁷⁵ These include the Tanzania Sustainable Energy for All Action Agenda, the National Climate Change Response Strategy, the National Strategy for Mainstreaming Gender in Climate Change, and the National Clean Energy Cooking Strategy. These efforts, alongside international collaborations such as the Africa Women Clean Cooking Support Programme, seek to enhance access to clean energy, particularly clean cooking solutions, and incorporate gender considerations into climate and energy policies.



It should be noted that gas resources in Tanzania are found in Muslim-populated areas where most women are married off young due to culture and patriarchy. This has left women out of the oil and gas value chain. Furthermore, the local content policies in Tanzania are not gender sensitive and are not geared towards creating avenues for women to be employed in the oil and gas sector. The mining industry has historically faced challenges related to negative gender biases, cultural norms, and various barriers—regulatory, systemic, structural, and physical—that hinder women's involvement. Mining is often seen as male-dominated, deemed too strenuous and hazardous for women. Due to their physiological characteristics, women are frequently viewed as ill-suited for navigating the narrow, deep underground mining pits for mineral extraction. Kondo, indicates that women are sometimes barred from accessing mines they own, supposedly for 'safety' reasons put forth by local authorities.⁷⁶ While acknowledging women's involvement, Tanzania's critical mining sector framework reveals considerable deficiencies that impede their effective participation. Although there are positive developments, such as licensing for artisanal miners, it does not sufficiently tackle women's obstacles in securing capital,

74 Aamaas, B. and Grimsby, L.K., 2024. The impact on climate and emissions of clean household cooking energy policies in Tanzania. *Energy Policy*, 192, p.114211.

75 Ibid.

76 Kondo, H. (2023) An exclusive look at Tanzanian women in mining <https://www.sciencedirect.com/science/article/pii/S2214790X24000595>



developing skills, and accessing markets.⁷⁷ Amendments to the Mining Act of 2010 still leave gender representation in commissions inconsistent and fail to integrate gender as a strategic priority. Additionally, the gender-related disclosures in the Extractive Industries Transparency Act are limited and primarily focus on traditional minerals, ignoring critical minerals. Local content regulations also lack specific quotas to ensure women's participation in employment and procurement. Other relevant legislation, particularly those concerning natural resources and land ownership, maintain a gender-neutral stance, overlooking women's unique challenges, especially regarding customary land ownership that limits access and control.⁷⁸

77 Majamba, H. I. (2020). The gender gap in Tanzania's mining sector. *Tanzania Journal of Development Studies*, 18(1), 29-40.

78 Ibid.

11.0 Policy Implications and Recommendations

The development of oil, gas, and critical mineral resources during the energy transition era presents a complicated history that may lead to adverse outcomes influenced by historical, economic, and political elements. Despite Tanzania's abundant natural resources, it has not yet demonstrated significant progress from this mineral wealth. Based on Tanzania's circumstances, the threat of a resource curse looms, marked by rising poverty, corruption, income inequality, and a mixed political governance framework. The nation's dependency on resource-backed loans, especially from China, has intensified its debt challenges, raising alarms about long-term economic viability.

Moreover, Tanzania's energy transition carries both risks and opportunities. The country possesses extensive potential from renewable energy options like solar, wind, and hydropower. Currently, its energy portfolio is predominantly based on fossil fuels. While the government's initiatives to promote clean energy and incorporate gender perspectives in climate and energy policies are admirable, critical gaps persist in achieving fair energy access and tackling the disproportionate effects of climate change on women. The rising global demand for critical minerals vital for the energy transition enables Tanzania to capitalize on its mineral wealth for economic advancement. Nonetheless, the geopolitical implications surrounding these critical minerals, particularly the competition between major players such as China and the US, underscore Tanzania's need to tread carefully to ensure its resources effectively benefit its populace. The following are the policy recommendation:

1. Tanzania should strengthen governance and institutional frameworks, by enhancing transparency and increasing parliamentary participation in mining and oil and gas contract negotiation. The country needs to implement accountability measures, and improve beneficial ownership by partnering with international stakeholders to maximise good governance.
2. Tanzania should promote economic diversification, although the country attracts massive investments from capital markets due to the energy transition. The government should diversify from primary sectors such as agriculture into developing clean sources of rent from the blue economy, eco-tourism, and carbon markets. This will mitigate the impacts of climate change while addressing rent maximization.
3. Tanzania should accelerate the energy transition, as fossil fuels dominate the country's energy mix. Given the sensitive political nature of electricity being a currency in local



elections, the government ought to encourage off-grid energy providers to diversify the energy mix and reduce reliance on fossil fuels. The government could unbundle TANESCO into three mid-sized companies that attract external funding, with the government holding a stake of 50%+1. This would hasten the energy transition due to increased investments in renewable energy while maintaining state control of the energy sector.

4. Tanzania should address gender inequalities in energy access. The country should cultivate gender-specific programs and policies that align with the SDGs and other international frameworks. Furthermore, these policies could be tied to funding energy conditions to ensure women's participation in the energy sector. As much as clean cooking aims to empower local women, the government could implement a price cap for clean cooking technologies that are not harmful to the market to facilitate a just energy transition.
5. Tanzania should maximize its position as a critical mineral hub. The country should develop a domestic downstream sector for critical mineral development and value addition. This would entail increasing tariffs on imported goods that use critical minerals as raw materials. The country should also develop critical mineral-specific laws and regulations to maximize the impact of their investments in the country.
6. Tanzania should manage debt sustainably and not exchange resources for loans. This increases borrowing and lacks transparency, which leads to no accountability. Hence, the government should strengthen debt management practices and not link them to the mineral industry, as this will curtail the development of a downstream sector.

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